

**U.S. DEPARTMENT OF TRANSPORTATION,
FEDERAL AVIATION ADMINISTRATION, AND
U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE**

RECORD OF DECISION

**Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods
National Monument, San Francisco Maritime National Historical Park, and Point Reyes
National Seashore**

INTRODUCTION

This Record of Decision (ROD) provides the Federal Aviation Administration's (FAA's) and the National Park Service's (NPS's) (together, the agencies) final determination to implement the Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area (Golden Gate), Muir Woods National Monument (Muir Woods), San Francisco Maritime National Historical Park (San Francisco Maritime), and Point Reyes National Seashore (Point Reyes) (collectively, the Parks), in accordance with the National Parks Air Tour Management Act (NPATMA), as amended, its implementing regulations (14 CFR Part 136), and all other applicable laws and policies. This ROD includes a summary of the applicable background, the objective of the action taken, a description of the action taken, a summary of consultation/compliance processes for the ATMP, an identification of substantive changes to the final ATMP from the draft ATMP to the final ATMP, and an explanation of the basis and justification for measures taken in the ATMP.

BACKGROUND

The ATMP provides relevant background information regarding the Parks and their resources, as well as relevant NPS management objectives for each of the Parks.

The National Parks Air Tour Management Act

NPATMA requires that all commercial air tour operators conducting or intending to conduct a commercial air tour operation over a unit of the National Park System apply to the FAA for authority to undertake such activity. 49 U.S.C. § 40128(a)(2)(A). NPATMA, as amended, further requires the FAA, in cooperation with the NPS, to establish an ATMP or voluntary agreement for each park that did not have such a plan or agreement in place at the time the applications were made, unless a park has been otherwise exempted from this requirement. *Id.* § 40128(b)(1)(A). The objective of an ATMP is to "develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tour operations upon the natural and cultural resources, visitor experiences, and tribal lands." *Id.* § 40128(b)(1)(B). An ATMP "may prohibit" commercial air tour operations over a park in whole or in part, or "may establish" conditions for the conduct of commercial air tour operations over a park. *Id.* § 40128(b)(3)(A)-(B). The need for implementation of any measures taken in an ATMP

must be justified and documented in the ATMP and within a record of decision. *Id.* § 40128(b)(3)(F).

As a threshold matter, the agencies needed to define what constitutes a commercial air tour so that they could implement NPATMA's requirements. As relevant here, FAA regulations define a commercial air tour as:

[A]ny flight, conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of any national park, or over tribal lands during which the aircraft flies:

- (i) Below 5,000 feet above ground level (except for the purpose of takeoff or landing, or as necessary for the safe operation of an aircraft as determined under the rules and regulations of the Federal Aviation Administration requiring the pilot-in-command to take action to ensure the safe operation of the aircraft); [or]
- (ii) Less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)...

14 CFR § 136.33(d).

Because Congress understood that developing ATMPs that meet NPATMA's requirements could take some time, NPATMA provided that prior to the establishment of an ATMP, the FAA "shall grant interim operating authority" to existing air tour operators that apply for prospective operating authority. 49 U.S.C. § 40128(c)(1); H.R. Rep. No. 106-167, at 96. The interim operating authority (IOA) issued was required to be the greater of the number of commercial air tour flights over the park during the 12-month period prior to the enactment of NPATMA or the average number of commercial air tour flights within the 36-month period prior to the enactment of NPATMA. 49 U.S.C. § 40128(c)(2).

NPATMA was substantively amended in 2012. In addition to authorizing the agencies to enter into voluntary agreements with air tour operators in lieu of developing ATMPs, 49 U.S.C. § 40128(b)(7)(A), the 2012 amendments added reporting requirements for operators conducting commercial air tour operations over National Park System units. *Id.* § 40128(d). The amendments also exempted parks with 50 or fewer commercial air tours from the requirement to prepare an ATMP or voluntary agreement, unless this exemption was withdrawn by the NPS. *Id.* § 40128(a)(5).

Past Efforts to Complete an ATMP for the Parks

In 2010, the agencies initiated an ATMP planning process for the Parks. In 2011, the FAA published a notice of the agencies' intent to prepare an environmental assessment for that ATMP. Notice of Intent To Prepare an Environmental Assessment, Notice of Public Meetings, and Notice To Request Public Scoping Comments for the Air Tour Management Plan Program at Golden Gate National Recreation Area, San Francisco Maritime National Historical Park and Point Reyes National Seashore 76 Fed. Reg. 45,312 (July 28, 2011). However, work on this planning process was ultimately paused due to the passage of the 2012 amendments to

NPATMA which, as discussed above, included new operator reporting requirements and provided an exemption from the requirement to prepare an ATMP or voluntary agreement for parks with 50 or fewer commercial air tours per year. The planning process was formally terminated via a September 3, 2020 Federal Register notice. Termination of Previously Initiated Processes for the Development of Air Tour Management Plans and Environmental Assessments/Environmental Impact Statements for Various National Park Units and Notice of Intent to Complete Air Tour Management Plans at 23 National Park Units, 85 Fed. Reg. 55,060 (Sept. 3, 2020).

The Compliance Plan

In February 2019, a petition for a writ of mandamus was filed in the U.S. Court of Appeals for the District of Columbia in which the petitioners requested an order directing the NPS and FAA to establish ATMPs or voluntary agreements under NPATMA for seven specified National Park System units, including Muir Woods National Monument, within two years of such order. *In Re: Public Employees for Environmental Responsibility (PEER)*, 957 F.3d 267, 271 (D.C. Cir. 2020). On May 1, 2020, the Court granted the petition, holding that the agencies had a mandatory duty to establish ATMPs or voluntary agreements for eligible parks under NPATMA and that mandamus relief was warranted based on delay in performance of this duty and consideration of the relevant factors. *Id.* at 273; Per Curiam Order, May 1, 2020 (Mandamus Order). The Mandamus Order directed the agencies to submit, by August 31, 2020, a proposed plan for bringing all 23 eligible parks within the National Park System into compliance with NPATMA, by completing an ATMP or voluntary agreement for those parks, within two years—or to offer “specific, concrete reasons” why it will take longer than two years. *Id.* The Court retained jurisdiction to approve the agencies’ plan and monitor their progress and directed the agencies to submit quarterly progress updates.

Consistent with the Court’s order, agencies submitted a proposed plan and schedule (Compliance Plan). In general, the Compliance Plan contemplated initiating and moving forward with process to implement ATMPs at all eligible parks concurrently as part of a coordinated, omnibus effort. San Francisco Maritime, Point Reyes and Golden Gate were identified as requiring an ATMP or voluntary agreement under NPATMA, and were included in the Compliance Plan which was subsequently approved by the D.C. Circuit. Based on the agencies’ representations that no air tours had been conducted over Muir Woods since 2013 and that Muir Woods was thus exempt from NPATMA, the Court recognized that NPATMA did not require an ATMP or voluntary agreement to be prepared for that park. *In Re: PEER*, 957 F.3d at 271 n.1. As further detailed below, the NPS subsequently withdrew the exemption for Muir Woods and it is included in the ATMP.

On June 21, 2022, the Court ordered the agencies to file a joint supplemental report and propose firm deadlines for bringing each of the parks included in the Compliance Plan into compliance with NPATMA. On July 21, 2022, the agencies filed their report and provided a deadline of January 31, 2023 to complete the ATMP for the Parks.

The Planning Process and Public Engagement

As no ATMP had previously been implemented for any park at the time the agencies submitted their Compliance Plan to the Court, as an initial step in this process, the agencies worked collaboratively to determine the contents of and process for completing an ATMP that would be consistent with NPATMA. Together, they developed a template which could then be modified and tailored to meet the specific needs and address the unique circumstances of each park included in the planning process. Further, because air tours have been occurring over parks for decades, the agencies had institutional experience and data to draw upon in developing the ATMP template and in determining how to regulate commercial air tours over parks. Given the amount of time that had elapsed since the initiation of the prior ATMP process for the Parks, the FAA and the NPS terminated that ATMP process, as noted above, to start the development of ATMPs and associated environmental compliance documents consistent with the Compliance Plan. *See* 85 Fed. Reg. 55,060.

Near the beginning of the planning process, the agencies agreed to prepare a single combined ATMP for Golden Gate, Point Reyes, and San Francisco Maritime due to: the close proximity of the parks, including shared borders; the fact that the same operators conducted air tours over the three parks; and, the fact that the operators' routes overflow multiple parks. Though Muir Woods was exempt from the requirement to prepare an ATMP or voluntary agreement, the NPS withdrew that exemption on March 4, 2021 in order to protect the park's resources and values and visitor experience and to preserve the park's primeval character and ecological integrity of its old-growth redwood forest. The NPS's letter also noted the park's natural soundscape is a highly valued part of the visitor experience.

The agencies also worked to identify the existing condition of commercial air tours over the Parks and outside the Parks but within ½ mile of their boundaries (referred to as the ATMP boundary), i.e., the average number of commercial air tours conducted per year and the general operating parameters of those tours. Currently, two air tour operators, San Francisco Helicopters, LLC (S.F. Helicopters) and San Francisco Seaplane Tours, Inc. (S.F. Seaplane Tours) hold IOA for a combined total of 5,090 commercial air tours each year over each of the four Parks. S.F. Helicopters holds IOA for 2,900 commercial air tours each year over each of the Parks and S.F. Seaplane Tours holds IOA for 2,190 commercial air tours each year over each of the Parks. IOA includes only an annual cap on the number of commercial air tours that may be conducted by an operator but does not represent the actual number of air tours conducted and does not designate the route(s), time-of-day, altitude(s), or other conditions for such tours.

The agencies decided to use a three-year average of operator-reported air tours to identify the existing condition, rather than reports from a single year. In order to identify the three-year average, the agencies decided to use reported air tours from 2017, 2018, and 2019. These years were selected because they reflected relatively current air tour conditions, represented reliable operator reporting of air tours, accounted for variations across multiple years, and excluded 2020 which was atypical due to the COVID-19 pandemic. The agencies also decided against using 2021 data due to continued abnormalities associated with the COVID-19 pandemic and the unavailability of reporting data for 2021 during most of the planning effort. The charts below depict available reporting information regarding the number of commercial air tours conducted

on an annual basis over Golden Gate and San Francisco Maritime and over Point Reyes. Though S.F. Seaplane Tours previously reported conducting commercial air tours over Muir Woods, the agencies determined that this was an error and that no commercial air tours over Muir Woods have been conducted since 2013, the year the agencies first received reporting data from operators.

Golden Gate and San Francisco Maritime

	2013	2014	2015	2016	2017	2018	2019	2020 ¹
S.F. Helicopters	1,406	1,354	1,436	1,166	1,291	1,280	1,270	275
S.F. Seaplane Tours	514	649	836	1,084	1,297	1,270	1,236	302

Point Reyes

	2013	2014	2015	2016	2017	2018	2019	2020 ²
S.F. Seaplane Tours	11	54	82	83	124	151	154	55

In order to identify the general operating parameters of the air tours conducted, the FAA reached out to the current operators to identify current air tour routes and other operating conditions. The operators conduct commercial air tours on 11 different routes within the ATMP boundary. All routes pass over or within ½ mile of both Golden Gate and San Francisco Maritime during the same tour. A subset of the commercial air tours conducted by S.F. Seaplane Tours also fly over Point Reyes. S.F. Helicopters conducts commercial air tours using BHT-407-407 and BHT-427-427 aircraft (rotorcraft). S.F. Seaplane Tours conducts commercial air tours using DHC-2-MKI aircraft (fixed-wing). Commercial air tours are conducted at altitudes ranging between 1,000 feet (ft.) and 2,500 ft. above ground level (AGL) depending on location within the ATMP boundary. Altitude expressed in AGL units is a measurement of the distance between the ground surface and the aircraft. Commercial air tours of Golden Gate and San Francisco Maritime are typically conducted between the hours of 9:00 AM and 6:00 PM and occur year-round. S.F. Seaplane Tours offers a sunset tour of San Francisco Maritime and Golden Gate. Commercial air tours of Point Reyes are typically conducted between the hours of 12:00 PM and 5:00 PM and occur year-round.

Based on the three-year average of reporting data from 2017 to 2019, the operators conduct an average of 2,548 commercial air tours over Golden Gate and San Francisco Maritime each year. S.F. Helicopters conducts an average of 1,280 commercial air tours over Golden Gate and San Francisco Maritime each year. S.F. Seaplane Tours conducts an average of 1,268 commercial air tours over Golden Gate and San Francisco Maritime each year. Of the commercial air tours conducted by S.F. Seaplanes, 143 also fly over Point Reyes, or outside the park but within ½ mile of its boundary.

¹ Based on unpublished reporting data.

² Based on unpublished reporting data.

The air tour routes provided by the operators in 2020 were then modeled to predict noise effects using the FAA's Aviation Environmental Design Tool, a software system that models aircraft performance in space and time to estimate fuel consumption, emissions, noise, and air quality. This information was then considered, in addition to acoustic monitoring information, and analyzed by subject matter experts from the NPS's Natural Sounds and Night Skies Division, the NPS's Environmental Quality Division, the NPS Regional Office - Interior Regions 8, 9, 10, and 12, and the Parks. The interdisciplinary team which included biologists, Golden Gate's chief of natural resource management and science, cultural resource program managers, park planning and NEPA specialists, management assistants/analysts, and natural resource specialists, conducted a series of biweekly meetings to identify a proposed action. In these meetings the subject matter experts considered the routes and operations, the Parks' noise sensitive resources, and the Parks' existing and natural acoustic environment, visitor experience, and potential mitigation or protective measures that could be included in an ATMP. In developing a proposed action, the interdisciplinary planning team modified the operator-provided routes so that they would not fly over sensitive areas, including historic districts, or interfere with Parks' interpretive programs. Other mitigations (changes from the existing condition) were included, including imposing a minimum altitude for all commercial air tours.

The proposed action identified by the NPS and justifications for restrictions on commercial air tours were reviewed by the FAA, including the FAA's local Flight Standards District Office, for any aviation safety concerns. During this time, the agencies also conducted preliminary environmental analysis to identify the appropriate NEPA pathway for a draft ATMP implementing the proposed action; initiated consultation pursuant to Section 106 of the National Historic Preservation Act, including tribal consultation; and began preliminary analysis for potential effects on listed species and critical habitat consistent with Section 7 of the Endangered Species Act.

NPATMA requires that the agencies publish notification of the availability of a draft ATMP in the Federal Register for public comment and to hold at least one public meeting for each draft ATMP. The FAA published a notice of availability of the draft ATMP for the Parks on October 15, 2021. Public Meeting/Notice of Availability for Proposed Air Tour Management Plan at Golden Gate National Recreation Area; Muir Woods National Monument; San Francisco Maritime National Historical Park; and Point Reyes National Seashore, 86 Fed. Reg. 57, 471 (Oct. 15, 2021). The agencies held the public meeting for the ATMP for the Parks on October 26, 2021 and accepted public comments on this ATMP between October 15 and November 14, 2021. The agencies received 149 comment letters on the draft ATMP. The agencies' review and analysis of the public comments, including comments regarding draft ATMPs for other parks that were generally applicable to the ATMP, were used to inform this ROD, the final ATMP, and the attached environmental compliance documentation.

OBJECTIVE

The objective of the ATMP is to implement "acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tour operations

upon the natural and cultural resources, visitor experiences, and tribal lands.” 49 U.S.C. § 40128(b)(1)(B).

The ATMP is necessary for the following reasons:

- NPATMA requires the agencies to implement an ATMP or voluntary agreement for Golden Gate, Muir Woods, San Francisco Maritime, and Point Reyes. The agencies have chosen to satisfy this requirement by implementing an ATMP that covers all four of these parks.
- Currently, commercial air tours are operating under IOA which does not include mitigation measures that the NPS believes are necessary to protect the resources and values of the Parks, consistent with the NPS’s obligations under the National Park Service Organic Act and the 2006 Management Policies, and to achieve NPS management objectives for the Parks.

DESCRIPTION OF ACTION

The agencies will implement the ATMP for Golden Gate, Muir Woods, San Francisco Maritime and Point Reyes, and the FAA will update the operations specifications (OpSpecs)³ of all air tour operators with IOA for the Parks to incorporate the terms and conditions of the ATMP. The ATMP authorizes the existing condition of commercial air tour operations for current operators with measures designed to mitigate impacts on the Parks’ resources and visitor experience as a result of commercial air tour operations. It also includes additional measures required by NPATMA. In general, the ATMP:

- Authorizes up to 2,548 total commercial air tours per year over Golden Gate and San Francisco Maritime. Of these 2,548 air tours only 143 air tours per year may be conducted on the designated route over Golden Gate, San Francisco Maritime, and Point Reyes.
- Does not authorize any commercial air tours over Muir Woods or within ½ mile of its boundary.
- Sets daily air tour allocations applicable to air tours over Point Reyes under which one tour per day may be conducted on Standard Days while two tours per day may be conducted on up to five Flex Days per year.
- Sets minimum altitudes depending on location within the ATMP boundary with limited exceptions for takeoff, landing, and emergency situations.
- Designates air tour routes specific to each operator as depicted on an included map (*see* Figures 2-5 in the ATMP, Appendix A to this ROD).
- Requires aircraft to laterally avoid certain areas for the protection of nesting seabird colonies, peregrine falcon nests, and/or marine mammals.
- Authorizes specific types of aircraft to be used on the tours, specifies that any new or replacement aircraft must not be noisier than the authorized aircraft.

³ OpSpecs are issued by the FAA to each operator and prescribe the authorizations, limitations, and procedures under which air tour operations must be conducted and require certain other procedures under which each class and size of aircraft is to be operated.

- Provides that no commercial air tours over Point Reyes may be conducted via helicopter.
- Provides that, unless a quiet technology incentive applies, commercial air tours of Golden Gate and San Francisco Maritime may operate from 9:00 AM until 30 minutes after sunset. Air tours that also overfly Point Reyes may operate from 12:00 PM to 5:00 PM, unless they qualify for the quiet technology incentive, in which case they may operate from 11:00 AM to 5:00 PM. Air tours of Golden Gate and San Francisco Maritime conducted on aircraft that qualify for the quiet technology incentive may begin one hour after sunrise.
- Provides for the establishment of no-fly periods by the NPS for management of one or more of the Parks or special events at one or more of the Parks, including tribal events, with advance notice to the operators.
- Provides for operator training and education.
- Requires annual meetings between the FAA Flight Standards District Office, Park staff, and the operators for the first five years after it is signed, after which time this annual meeting will be required if requested by either of the agencies.
- Requires operators to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted.
- Requires reporting of any bird strikes during commercial air tours.
- Includes safety requirements relating to in-flight communications.
- Allows for minor modifications to the ATMP through adaptive management, so long as the impacts of such changes have already been analyzed in previous environmental compliance.
- Outlines a process for amending the ATMP.
- Provides information regarding the process for operators to apply for operating authority as a new entrant.
- Sets forth a general process for conducting competitive bidding for air tour allocations, where appropriate.
- Explains that compliance with terms of the ATMP will be mandatory, and IOA for all of the Parks will be terminated, as of the effective date of the ATMP (the date the revised or updated OpSpecs are issued to implement the ATMP) which will be on or before 90 days from the date the ATMP is signed.

CONSULTATION AND COMPLIANCE

- **National Environmental Policy Act:** The NPS applied a documented categorical exclusion to the ATMP. The categorical exclusion that the NPS applied is set forth in the Department of the Interior, Departmental Manual at 516 DM 12.5 A(1), and is reproduced in the NPS NEPA Handbook at categorical exclusion 3.3.A.1. It applies to “[c]hanges or amendments to an approved action when such changes would cause no or only minimal environmental impacts.” Here, the “approved action” is the interim operating authority issued by the FAA consistent with NPATMA, which was a non-discretionary authorization directed by Congress. The agencies used the NPS environmental screening form to document that there are no or minimal impacts from the

ATMP. The NPS separately analyzed the impacts of the ATMP on each of the four parks and documented the impacts on an environmental screening form for each park. The NPS evaluated the extraordinary circumstances in 43 CFR § 46.215 and determined that no extraordinary circumstances apply and the ATMP will not result in significant impacts. The documentation for the NPS's application of the categorical exclusion to the ATMP is documented in a single categorical exclusion documentation form for all four parks, as well as the four environmental screening forms. The FAA performed its own extraordinary circumstances analysis and analysis under Section 4(f) of the Department of Transportation Act, codified at 49 U.S.C. § 303(c), and adopted the NPS's categorical exclusion determination pursuant to 40 CFR § 1506.3(d). *See* Appendices B, C, and D.

- **Endangered Species Act and Marine Mammal Protection Act:** The agencies analyzed potential impacts for marine mammals and all threatened or endangered species with suitable habitat within the Parks with a focus on noise sensitive species. The agencies contacted both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for technical assistance on the impacts to marine mammals and threatened and endangered species from the ATMP. The mitigations in the ATMP, including the minimum altitudes, routes and time of day restrictions will result in the authorized commercial air tours having no effect on these species or on other listed species that may be present in the project area. Thus, in accordance with the Marine Mammal Protection Act and Section 7 of the Endangered Species Act, the agencies determined that the ATMP would have no effect on marine mammals or threatened and endangered species or their critical habitats. *See* No Effect Determination and Evaluation of Other Species of Concern, Appendix E.
- **Coastal Zone Management Act:** Some airspace regulated by the ATMP is above areas that are designated coastal zone areas under the jurisdiction of the California Coastal Commission or the San Francisco Bay Conservation and Development Commission. The agencies analyzed the ATMP's consistency with the provisions of the California Coastal Act and determined that it is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program. The agencies transmitted their finding to the California Coastal Commission via letter signed on August 16, 2022. The agencies granted the California Coastal Commission's request to extend the Commission's sixty-day review period for their consistency determination until November 18, 2022. On November 17, 2022, the California Coastal Commission concurred with the agencies' consistency determination finding the ATMP to be consistent with the California Coastal Management Program. *See* Appendix I.

The agencies also analyzed the ATMP's consistency with the enforceable provisions of the McAtteer-Petris Act and the policies set forth in the San Francisco Bay Plan. The agencies transmitted their finding to the San Francisco Bay Conservation and Development Commission via letter signed on August 16, 2022. Via letter dated August 30, 2022, the San Francisco Bay Conservation and Development Commission notified the agencies that additional information was needed in support of their initial consistency determination. The agencies provided the information required by 36 CFR § 930.39(a) and additional information requested by the San Francisco Bay Conservation and

Development Commission via letter dated, and received by Commission on, September 29, 2022. This same information was also provided to the California Coastal Commission on September 29, 2022. On October 13, 2022, the San Francisco Bay Conservation and Development Commission notified the agencies that it was invoking its right to a fifteen-day extension of its review period under 15 CFR § 930.41(b) and that it would complete its consistency review by December 13, 2022. On December 12, 2022, the Commission requested an additional extension of its review period until at least January 6, 2023. The agencies were unable to grant the requested extension as it would jeopardize their ability to meet their January 31, 2023 deadline to complete the ATMP. Under 15 CFR § 930.41(a), the San Francisco Bay Conservation and Development Commission is presumed to concur with the agencies' consistency determination. *See* Appendix I.

- **National Historic Preservation Act:** The agencies complied with Section 106 of the National Historic Preservation Act and completed the Section 106 consultation process with respect to this undertaking—implementing an ATMP for the Parks. Via letter dated April 12, 2021, the FAA, acting as lead agency for the Section 106 process, initiated consultation under Section 106 with the Federated Indians of Graton Rancheria, a federally recognized tribe. In the same letter, the agencies also invited the Federated Indians of Graton Rancheria to engage in government-to-government consultation under Executive Order 13175. On May 18, 2022, the agencies met with the tribe on a government-to-government level. The Federated Indians of Graton Rancheria agreed to proceed forward and review the finding of effect correspondence with the understanding that tribal consultation would be initiated if the routes changed from those identified in the proposed ATMP.

The FAA initiated consultation via letter to the California State Historic Preservation Officer (SHPO) on March 29, 2021 and all other identified Section 106 consulting parties on September 17, 2021.

Via the same and/or subsequent letters the FAA identified the area potentially affected by the undertaking, requested information regarding historic properties within the area of potential effects and proposed a finding of no adverse effect to historic properties as a result of the undertaking to consulting parties. The undertaking was defined consistent with the proposed action in the Categorical Exclusion Form, Appendix C, and is discussed above. The Federated Indians of Graton Rancheria received all relevant regarding Section 106 consultation.

During the consultation process, the agencies conducted additional outreach to consulting parties for this undertaking and for other ATMPs included in the current planning process via webinar. The agencies conducted webinars on April 28, May 4, and May 6, 2021, for SHPOs, tribes, and other identified consulting parties to introduce key agency participants and the air tour management planning process, and to discuss next steps in the Section 106 process. The FAA also held a webinar for commercial air tour operators currently conducting air tours over any of the parks included in the planning process on November 19, 2021, to introduce them to the Section 106 consultation process. In addition, the FAA conducted further outreach efforts to the Federated Indians of Graton Rancheria, which is detailed in Appendix F.

Public involvement for this undertaking was integrated with the public involvement required under NPATMA, discussed *supra*. During the public comment period for the draft ATMP, the agencies did not receive any comments related to historic properties or the undertaking's potential effect on them.

Via letter dated August 30, 2022, the FAA proposed a finding of no adverse effect to the SHPO. *See* Appendix F. The FAA received an automatic reply that the submission was received by the SHPO and processed on August 30, 2022. On September 22, 2022 the agencies reached out to the SHPO who then confirmed the project had been received and logged. The FAA did not receive any responses or objections to its finding.

- **Aviation Safety:** The draft ATMP, in particular the routes and altitudes included in the draft ATMP, was reviewed by the FAA's Flight Standards District Office (FSDO)⁴ with jurisdiction, to identify and address any safety concerns associated with the draft ATMP. The FAA's FSDO also reviewed all public comments received on the draft ATMP that raised safety concerns as well as the routes and altitudes included in the final ATMP.

CHANGES FROM THE DRAFT ATMP

In addition to minor, editorial changes made for clarity, the final ATMP includes the following substantive changes from the draft ATMP made in response to public comments on this or other draft ATMPs,⁵ or based on further agency review, as follows:

- **Section 3.2 Commercial Air Tour Routes and Altitudes**

The organization of this section was substantially revised to provide greater specificity regarding minimum altitude requirements and to include information on lateral offsets noted on the included route maps. The three routes designated for fixed-wing aircraft (the Blue Route, the Green Route, and the Red Route) are individually described, as are the altitude and offset requirements for commercial air tours on those routes. These routes are depicted in Figures 2, 4, and 5 in the ATMP. In response to comments, the lateral avoidance required for Ranch Core Area B was changed from 2,000 ft. to 1,000 ft. to be consistent with other resource offsets. Text was added to clarify that the minimum altitude required for all aircraft when within the ATMP boundary (defined as the area subject to regulation by the ATMP) around Angel Island State Park is 1,000 ft. AGL. The minimum altitudes and lateral offsets required for the eight routes designated for helicopter tours, are generally described in the ATMP and depicted with particularity in Figure 3 in the ATMP. The minimum altitude for helicopter tours around Alcatraz Island was raised from 1,000 ft. AGL in the draft ATMP to 1,500 ft. AGL in the final ATMP for the protection of nesting shorebirds. All aircraft are required to maintain a minimum altitude of 1,500 ft. AGL when within the ATMP boundary around Alcatraz Island.

⁴ A FSDO is a local FAA field office that deals with various aviation issues including airmen and aircraft certifications, accident investigations, and enforcement and investigation issues.

⁵ In August and September of 2021, the agencies released eleven draft ATMPs covering eleven other parks for public review and comment.

Modifications were also made to some of the included maps, though the designated routes themselves were not changed, except for the minor modifications noted above, which are also reflected in the maps. Figures 2 and 5 were revised to identify features for which lateral avoidance was required. The helicopter route maps in Figure 3 were modified to focus on the area within the ATMP boundary and to add labels where 1,500 ft. AGL is required over park lands in Marin County. Additionally, a note was included on Figures 2, 3 and 4 to clarify that the Commodore Center heliport and seaplane base is located outside of the ATMP boundary.

- **Section 3.6 Required Reporting**

This section was split into two subsections, because a new subsection was added in response to public comments that requires operators to report all bird strikes that occur during commercial air tours within the ATMP boundary per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. The new subsection, 3.6B Bird Aircraft Strike Reporting, requires the operators to include information regarding bird strikes in their semi-annual reports to the agencies required by Section 3.6A Air Tour Reporting

- **Section 3.7B Annual Meeting**

Having considered the recommendation made by the Advisory Council on Historic Preservation regarding the ATMP for Great Smoky Mountains National Park, the agencies decided to make the annual meeting in Section 3.7B mandatory for the first five years after the ATMP is signed. After the first five years, an annual meeting will be held if requested by either the NPS or the FAA.

- **Section 3.7D Additional Requirements**

In response to public comments, the frequency operators are required to use when conducting commercial air tours authorized by the ATMP was changed to 124.3 Common Traffic Advisory Frequency as local FSDO concurred that this frequency is more appropriate than the frequency included in the draft ATMP. A new section 3.7E was added to prohibit hovering aircraft in place.

- **Section 3.7F Non-transferability of Allocations:**

In response to comments questioning the transferability of air tour operations allocated under this or other ATMPs, the agencies included a new section. Section 3.7F Non-transferability of Allocations makes clear that allocations of annual air tour operations are not transferable between operators. But a successor purchaser may assume an operator's allocation of annual air tour operations by acquiring an entity holding allocations under this ATMP in its entirety. In order to avoid a break in service and to afford the agencies the necessary time to consult regarding modifications to operations specifications, the ATMP requires that the prospective purchaser notify the agencies as early as possible of its intention to purchase the entity holding allocations and to certify that it will comply with the terms of the ATMP.

- **Section 3.8 Quiet Technology Incentives:**

The agencies revised the language in Section 3.8 regarding the quiet technology incentive required by NPTMA in response to comments on this and other draft ATMPs requesting a definition of the term “quiet technology” or suggesting a definition for such term. The agencies have not included a definition of quiet technology in the ATMP. Instead, the ATMP provides for a consultation with operators regarding which of their aircraft qualify for the incentive at the time this ATMP is implemented. Subsequently, should operators wish to purchase new aircraft or make appropriate modifications to existing aircraft, they are encouraged to consult with the agencies prior to making such investment to determine whether the aircraft would qualify for the incentive. In response to comments regarding whether the incentive should or should not be applied retroactively to aircraft that may already qualify for the incentives, the agencies revised the language in the ATMP to make clear that the incentive may apply to operators that have already converted to quiet technology aircraft, if the agencies determine that they qualify for the incentive. To do otherwise, would unfairly penalize operators that were early adopters of quiet technology. The language in this section was also modified to make clear that not only will the effectiveness of the quiet technology incentive be monitored, but the effects of this incentive on the Parks’ resources and visitor experiences will be monitored by the NPS. If unanticipated effects are observed, the agencies may need to amend the ATMP to modify this or other sections. A quiet technology incentive for Point Reyes was added to the final ATMP. Commercial air tours of Point Reyes using aircraft that qualify for the quiet technology incentive will be permitted to begin at 11:00 AM on all days that flights are authorized. The quiet technology incentive for air tours of Golden Gate and San Francisco Maritime— allowing quiet technology aircraft to conduct commercial air tours beginning one hour after sunrise on all days that flights are authorized—did not change from the draft ATMP to the final ATMP.

- **Section 5.0 Justification for Measures Taken**

This section was Section 4.0 in the draft ATMP. It was moved as a result of comments expressing the opinion that the monitoring and compliance measures included in one or more of the draft ATMPs were not justified or explained. In order to include a justification for these requirements in the same section as the explanations for the other requirements included in the ATMP, the agencies thought it made more logical sense to move Section 5.0, *Compliance*, as well as Section 5.1, *Aircraft Monitoring Technology*, forward in the ATMP, and they are Sections 4.0 and 4.1, respectively, in the final ATMP. Text was edited to reflect the minor modifications to lateral avoidances and minimum altitudes described above, in particular to explain the provisions of the ATMP that protect sensitive wildlife on Alcatraz Island. Text was added to explain the reasons for including the requirement that operators report bird strikes and the restriction on hovering, as the draft ATMP had not included these conditions. Additional changes to this section better align the justification for the annual operator training with purpose of the training and the justification for the annual meeting with the purpose of this meeting. Though these requirements may be combined, they are separate requirements with slightly different justifications.

- **Section 4.0 Compliance, Section 10.0 Conformance with Operations Specifications, and Section 11.0 Effective date.**

These sections were revised to make clear that the effective date of the ATMP is the date on which the operators' updated OpSpecs implementing the ATMP are issued by the appropriate FSDO. Because OpSpecs are used to inform the operators of the conditions under which they must operate and will be relied on by the FAA to enforce the terms and conditions of the ATMP, if necessary, it made sense for the effective date of the ATMP to be tied to the date that OpSpecs are modified and reissued to the operator and not to some other date. Section 4.0 of the ATMP (Section 5.0 in the draft ATMP) was revised to delete language that incorrectly assumed that there would be a difference between the effective date of the ATMP and modification of OpSpecs. Section 10.0 of the ATMP was revised to make clear that the FAA will issue new OpSpecs that incorporate the ATMP's operating parameters within 90 days of the date the ATMP is signed. Section 11.0 of the ATMP was revised to make clear that the effective date is the date new OpSpecs are issued, not some other date. In response to public comments, Section 4.0 Compliance was also revised to make clear that the public may report allegations of noncompliance and that the appropriate FSDO will investigate written reports of noncompliance consistent with FAA policy.

- **Additional changes**

In addition to the above changes, the draft ATMP was edited to clarify that the restrictions imposed by the ATMP apply not only when the operator is flying over lands or waters within the boundaries of the Parks but also when the operator is flying over lands or waters outside of the Parks' boundaries that are within ½ mile of the boundary of any of the Parks. Further edits were made to explain that the restrictions in the ATMP are protective of tribal use of the Parks and that adaptive management measures could be taken in response to tribal input.

Appendix A to the ATMP was revised to expressly state that all IOA for the Parks terminates on the effective date of the ATMP. Given that the operators will be required to fly consistent with the reissued OpSpecs, it would be inconsistent with the terms of the ATMP for IOA to remain after the ATMP is implemented. Though NPATMA provides that IOA "shall terminate 180 days" after the establishment of an ATMP, the agencies do not interpret this provision as precluding an earlier termination consistent with the terms and conditions of an ATMP. *See* 49 U.S.C. § 40128(c)(2)(E).

BASIS AND JUSTIFICATION FOR DECISION

- **Annual and daily commercial air tour limits**

The ATMP generally implements the existing condition, based on operator provided data, with respect to the total number of authorized air tours per year over each of the Parks. The agencies decided to implement the existing condition because the impacts associated with the existing condition, together with reasonable mitigation measures included in the ATMP, would not result in significant adverse impacts of commercial air tour operations upon the natural and cultural resources of any of the Parks or visitor experience in any of the Parks.

Consistent with current operations, the ATMP authorizes up to 2,548 commercial air tours over Golden Gate and San Francisco Maritime each year. The ATMP allocates 1,280 of these air tours to S.F. Helicopters and 1,268 to S.F. Seaplane Tours. The ATMP does not set a daily limit for the number of commercial air tours that may be conducted over Golden Gate and San Francisco Maritime, which is consistent with current operations.

Of the 1,268 tours that are allocated to S.F. Seaplane Tours, only 143 commercial air tours may also fly over Point Reyes, none of which may be flown using helicopters. No commercial air tours are authorized over Muir Woods or within ½ mile of its boundary. S.F. Seaplane Tours is the only operator that currently conducts commercial air tours over Point Reyes. In addition to the limit of 143 commercial air tours per year, the ATMP includes daily limits for commercial air tours over Point Reyes. The ATMP distinguishes between more restrictive “Standard Days” and less restrictive “Flex Days.” On Standard Days, only one tour per day may be conducted over Point Reyes. Each year there will be five Flex Days on which the operator may conduct up to two flights per day over Point Reyes. The operator’s use of Standard Days and Flex Days is limited by the 143 commercial air tours authorized per year. After the annual allocation of air tours are exhausted, there will be no further Standard Days or Flex Days until the next calendar year.

The agencies decided to implement the existing condition, with the daily flight limitations described above, because the NPS determined that the impacts associated with the existing condition, together with the reasonable mitigation measures included in the ATMP, would not result in significant adverse impacts of commercial air tour operations upon the natural and cultural resources or visitor experiences of any of the Parks.

Some commenters opposed the annual limits on commercial air tours included in the ATMP, characterizing it as a reduction from IOA and a limitation on growth opportunities. The agencies did not use IOA as the number of air tour operations authorized under the ATMP because IOA was based on numbers reported by operators more than 20 years ago, does not represent the most current or reliable operational data, and is not verifiable by the agencies. As demonstrated by available reporting data, actual tours flown have been substantially below IOA since NPATMA’s reporting requirement was implemented until the COVID-19 pandemic. The agencies also declined to increase the number of air tours authorized per year above the existing condition (the three-year average from 2017-2019) for the following reasons. First, at the outset of this planning process the agencies used available reporting data, operator provided routes, and other available information in order to identify the existing condition and the impacts of the ATMP including proposed mitigations. The agencies could not, and should not be required to, continually shift their planning efforts, and expend further resources, to account for and model continually shifting data and also complete an ATMP for the Parks consistent with the Compliance Plan. Second, the ATMP includes mitigation measures necessary to mitigate the impacts of current commercial air tour operations on the Parks’ resources, visitor experience, and tribal use and to meet NPS management objectives for the Parks. Further increases in the annual limit of commercial air tours have not yet been analyzed and may have impacts to these resources that could prevent the NPS from achieving its management objectives. Third, the ATMP amendment process could allow for an increase in the number of commercial air tours authorized per year and would permit the agencies to evaluate the potential impacts of any

additional air tours in the context of a concrete proposal from the operator that includes sufficient information for the agencies to assess the effects of such a proposal on the Parks' resources.

Although some commentors suggested that the ATMP should include a permanent cap on the number of air tours, the agencies declined to do so because they found the terms of the ATMP, which provides that any increase in the number of air tours authorized per year would require a plan amendment, to be sufficiently protective of the Parks' resources. A plan amendment would require additional public involvement and further environmental compliance, both of which also provide opportunities for further protection of the Parks' resources and visitor experience. A plan amendment could also provide for a reduction in air tour authorizations.

Some commentors advocated for the elimination of air tours, consideration of a no air tours alternative, weekly no fly days, consideration of a reduced air tour alternative, and a phased decrease in the number of air tours permitted, and reduction of air tours through operator attrition. While NPATMA does state that an ATMP may ban air tours, it also contemplates that air tours may be an appropriate use over parks subject to restrictions that prevent or mitigate significant impacts on park resources and visitor experience. The agencies believe that the operating parameters and other conditions in the ATMP provide appropriate restrictions and that there are no significant impacts to the Parks' resources and visitor experience.

- **Designated routes and minimum altitudes**

The ATMP includes designated routes for each operator and aircraft type. The designated routes are based on operator reported routes but include lateral offsets to avoid impacts to noise sensitive resources. In particular, the ATMP includes the following required lateral avoidances: 1,000 ft. from Alcatraz Island; 1,000 ft. north of Ranch Core Area B; $\frac{3}{4}$ miles offshore from Double Point; and, $\frac{1}{2}$ mile offshore from Duxbury Reef. The ATMP also sets minimum altitudes, depending on location within the ATMP boundary that also protect NPS resources in the parks overflowed. Aircraft are also required to maintain at least 1,000 ft. lateral avoidance of nesting shorebird colonies, peregrine falcon nests or marine mammal haul outs. Because these resources are sensitive, their locations are not depicted on the maps included in the ATMP. However, the NPS reviewed the routes designated in the final ATMP to ensure that they achieved the required 1,000 ft. lateral avoidance of these sensitive resources. If new nesting or marine mammal haul out locations are established within 1,000 ft. of a designated route, the required lateral avoidance will be accomplished through adaptive management measures or plan amendments.

Eight helicopter routes are authorized as depicted in Figure 3 in the ATMP. These routes are only authorized over Golden Gate and San Francisco Maritime. The helicopter routes are required to be flown at a minimum of 1,000 ft. AGL within the ATMP boundary, except that aircraft are required to maintain a minimum altitude of 1,500 ft. AGL within the ATMP boundary around Alcatraz Island and a minimum of 1,500 ft. AGL over park land in Marin County.

The ATMP authorizes three routes for fixed-wing aircraft: the Green Route, the Blue Route, and the Red Route. The Green Route and Red Route pass within the ATMP boundary over Golden Gate and San Francisco Maritime. Air tours conducted via the Green Route are required to maintain a minimum altitude of 1,500 ft. AGL within the ATMP boundary, except

that they may fly at 1,000 ft. AGL within the ATMP boundary around Angel Island State Park. The minimum altitudes required for air tours conducted on the Blue Route are generally required to maintain a minimum altitude of 1,500 ft. AGL, except that they are required to maintain a minimum altitude of 2,500 ft. AGL for a portion of the route over Golden Gate and a minimum of 1,000 ft. AGL when flying within the ATMP boundary around Angel Island State Park. These altitudes are depicted in detail in Figure 4 in the ATMP.

The Red Route is the only designated route that passes within the ATMP boundary over Point Reyes. For the portion of the Red Route that passes within the ATMP boundary over Point Reyes, the ATMP sets minimum altitudes that range from 2,500 ft. AGL to 1,500 ft. AGL, depending on location. The Red Route is the only designated air tour route that passes over designated wilderness and aircraft on that route are required to maintain a minimum altitude of 2,000 ft. AGL over land-based wilderness in Point Reyes. These altitudes are depicted in detail in Figure 5 in the ATMP. The portions of the Red Route that pass within the ATMP boundary over Golden Gate and San Francisco Maritime are subject to the same minimum altitudes as required on the Blue Route and depicted in Figure 4 in the ATMP.

Commenters suggested changes to the routes and increases to the minimum altitudes. The NPS considered the routes and operating parameters included in the ATMP and whether further modifications were needed to protect the Parks' resources and values. Having considered the routes and altitudes in the ATMP, together with the other restrictions and mitigation measures in the ATMP, the NPS found they were sufficient to protect the Parks' natural and cultural resources and visitor experience.

One commenter noted that the requirement for aircraft to fly more than 1,500 ft. AGL over certain areas would require entry into Class B airspace and that it's unreasonable for air tour operators to request Class B clearances several times a day for a three-to-five-minute transition.⁶ However, the routes and altitudes in the ATMP were reviewed for safety by the FSDO with jurisdiction. Aircraft flying on the designated routes and at the minimum altitudes required by the ATMP would not enter Class B airspace. If operators chose to fly higher than the required minimum altitudes, they may enter Class B airspace in which event they will need to adhere to applicable regulations for entering and operating in Class B airspace to ensure safe operation of the aircraft.

- **Hours of operation**

The ATMP restricts the hours during which commercial air tours may be held over Golden Gate, San Francisco Maritime and Point Reyes, a mitigation measure that offers resource

⁶ Generally, Class B airspace is airspace from the surface to 10,000 ft. above mean sea level surrounding the nation's busiest airports. The configuration of each Class B airspace area is individually tailored and consists of a surface area and two or more layers (some Class B airspace areas resemble upside-down wedding cakes), and is designed to contain all published instrument procedures once an aircraft enters the airspace. An air traffic controller's clearance is required for all aircraft to operate in Class B airspace, and all aircraft that are so cleared receive separation services within the airspace.

protection during these times of day which are important to wildlife and visitor experience. Unless they are flown using aircraft that qualify for the quiet technology incentive, commercial air tours over Golden Gate and San Francisco Maritime may operate beginning at 9:00 AM and must end 30 minutes after sunset. Unless they qualify for the quiet technology incentive, commercial air tours over Point Reyes may be conducted between noon and 5PM. Though commenters requested changes further restricting the hours during which commercial air tours are permitted to operate, the agencies declined to change these operating parameters because the NPS found the hours of operation in the ATMP, together with the designated routes, altitude restrictions, and other conditions in the ATMP to be sufficiently protective of Parks' the natural and cultural resources and visitor experience.

- **Annual meetings and annual training**

The ATMP requires operators to attend an annual meeting for the first five years after the ATMP is signed after which time it requires operators to attend an annual meeting at the request of either agency. As noted above, this change was made after considering a recommendation from the Advisory Council on Historic Preservation regarding the ATMP for Great Smoky Mountains National Park. Commenters requested other changes to these provisions including making the meetings public and requiring that the operators distribute certain materials to passengers. The agencies declined to change these provisions of the ATMP. It is important to allow staff of the Parks the flexibility to tailor meetings to meet the needs of their park and incorporate new information as management needs change. It is not necessary, at this point, to prescribe the format for information to be provided to the operators and would be burdensome on operators and staff at the Parks to require operators to provide specific printed material to air tour patrons. The agencies also declined to make operator meetings public as it would not serve the communication and coordination purposes of these meetings. The NPS needs to be able to meet with the operators as it does with other commercial service providers that operate within Park boundaries. However, other avenues remain available for other stakeholders to provide the agencies with their input regarding commercial air tour operations. For example, the National Parks Overflights Advisory Group meets every year to discuss various aspects of air tour management throughout the National Park System and those meetings are open to the public.

The ATMP also requires operators to attend a training course at least once per year when it is made available by the NPS. The training will include information that the operators can use to further their own understanding of the Park management priorities or objectives as well as enhance the interpretive narrative for air tour clients.

- **Monitoring and Compliance.**

In order to successfully implement the ATMP, the agencies determined that it should include provisions to allow the agencies to adequately monitor and ensure compliance with its conditions. To this end, Section 4.1 of the final ATMP requires that operators equip aircraft used for air tours with flight monitoring technology, to use such technology when conducting air tours, and to include flight monitoring data in their semi-annual reports. The NPS consulted with the National Parks Overflights Advisory Group regarding the cost of various flight following technologies and found that there are relatively inexpensive off the shelf options that could meet the requirements of the ATMP. Though the agencies received comments suggesting alternative

monitoring methodologies, including requiring equipping and using automatic dependent surveillance-broadcast (ADS-B) systems (which is a system that periodically transmits location data information in real-time) or providing for monitoring by the public, the agencies declined to include such options in the ATMP. As long as the tracking technology selected by the operator meets the performance requirements in the ATMP, the agencies did not find it necessary to require operators to install and use a specific technology. As to public monitoring, the agencies do not have the resources to stand up and staff a compliance response line and, given the monitoring measures included in the ATMP, such a line would be unnecessary. Further, given that commercial air tours are not the only flights conducted within the ATMP boundary, information from a public tip line would likely be less reliable as the public would likely have difficulty distinguishing between, for example, a commercial air tour flight and a general aviation flight. However, the ATMP acknowledges that the public may report allegations of noncompliance to the appropriate FSDO. Written reports of noncompliance will be investigated by the relevant FSDO consistent with FAA policy.

- **Adaptive Management**

The provisions in Section 8.0 are included to allow minor modifications to the authorized operating parameters (for example, slight deviations in routes) to avoid adverse impacts to the Parks' resources, values, or visitor experiences; address safety concerns; or address new information or changed circumstances. Such modifications could only be made through adaptive management if the impacts to the Parks' resources are within the scope of impacts already analyzed under NEPA, the Endangered Species Act, and Section 106 of the National Historic Preservation Act. This process was designed to ensure that actions that are potentially more impactful to resources would only be made through the amendment process, which requires public participation, after further environmental compliance. At least one commenter expressed concern that adaptive management would be used to remove, or lessen, measures designed to mitigate impacts on the Parks' resources and visitor experience or increase the number of commercial air tours allowed, but the agencies believe that the provisions of Section 8.0 are clear that adaptive management could not be used in this way. Authorization of additional air tours, beyond the those authorized in the ATMP including an increase of commercial air tour operations authorized annually on designated routes or an increase or daily commercial air tour operations, would require an amendment to the ATMP, which requires public notice and comment as well as environmental compliance.

- **Competitive bidding**

NPATMA requires that where an ATMP limits the number of authorized commercial air tours within a specific time frame, the agencies must develop an open and competitive process for evaluating competing proposals to conduct commercial air tours. 49 U.S.C. § 40128(a)(2)(B). At present, because the ATMP implements the existing condition of commercial air tour operations and restricts operators to designated routes that overfly different areas of the Parks, the agencies do not plan to conduct a competitive bidding process. However, this does not preclude the agencies from holding a competitive bidding process in the future, consistent with NPATMA. The ATMP identifies conditions under which a competitive bidding process may be appropriate.

- **Quiet Technology Incentive**

The ATMP includes quiet technology incentives. Aircraft utilizing quiet technology may fly commercial air tours over Golden Gate and San Francisco Maritime that begin one hour after sunrise whereas non-quiet technology aircraft would not be able to conduct tours over Golden Gate and San Francisco Maritime prior to 9:00 AM. Aircraft utilizing quiet technology may fly commercial air tours over Point Reyes that begin at 11:00 AM, whereas non-quiet technology aircraft would not be able to begin tours over Point Reyes prior to 12:00 PM. Though many commenters on this and other draft ATMPs requested a definition for quiet technology, the agencies found that creating a definition for quiet technology in this ATMP was not practicable because aviation technology continues to evolve and advance and because the FAA periodically updates its noise certification standards. An aircraft that may qualify as quiet technology today may be out of date 10 years from now. One commenter suggested that a specific aircraft be used for commercial air tours, but this suggestion was not adopted because it would be unnecessarily onerous on operators who often use a single aircraft for multiple purposes.

The agencies also declined to extend the definition of quiet technology established for commercial air tours over Grand Canyon National Park to the ATMPs developed under NPATMA. The standard for Grand Canyon National Park was developed pursuant to legislation specific to that park through a rulemaking process that was completed in 2005. That standard applies only to Grand Canyon National Park and was based on narrow site-specific noise requirements. In addition, quiet aircraft technology has advanced substantially since that time. The aircraft used to conduct air tours over Grand Canyon National Park are much larger and heavier than the aircraft used to conduct tours of the Parks, and since noise certification standards are based on the size and weight of the aircraft, the noise standards used to support the Grand Canyon quiet technology definition would not be appropriate for aircraft conducting tours within the ATMP boundary.

As noted above, the ATMP provides for a consultation with operators regarding which of their aircraft qualify for the incentive at the time this ATMP is implemented. Though some commenters requested that the incentive only apply to future aircraft purchases, the agencies included current aircraft in the incentive so as not to penalize early adopters of quiet technology. In the future, should operators wish to purchase new aircraft, the ATMP allows for consultation with the agencies before the operator makes the investment in a new aircraft to determine whether such aircraft would qualify for the incentive.

- **Analysis of Impacts**

Many commenters noted the lack of impact analysis in the ATMP. However, impact analysis is not required content in an ATMP. The impacts of the ATMP were evaluated using Environmental Screening Forms to determine the applicability of a categorical exclusion and whether any extraordinary circumstances were present that would preclude the application of a categorical exclusion, consistent with NPS practice. Likewise, the FAA conducted an analysis of potential effects under Section 4(f) of the Department of Transportation Act and analyzed whether there were any extraordinary circumstances under FAA Order 1050.1F, Paragraph 5-2

and subsequently adopted the NPS's categorical exclusion determination under 40 CFR § 1506.3(d). The agencies acknowledge that no previous NEPA analysis of IOA occurred because the issuance of IOA for commercial air tours of the Parks was a nondiscretionary action directed by Congress. Because of this, the agencies considered the impacts of air tours on the Parks' resources and visitor experience. There are numerous ways to measure the potential impacts of noise from commercial air tours on the acoustic environment of a park including intensity, duration, and spatial footprint of the noise. Several metrics were modeled and considered. The NPS considered maximum sound level (L_{Amax}) and the amount of time that aircraft from commercial air tour operations were above specific sound levels that relate to different Park management objectives (e.g., 35 and 52 decibels). The FAA used the average sound level over 12 hours (L_{Aeq}) in order to compute their standard noise metric of Day-Night Average Sound Level (DNL). The agencies used their respective modeling results to compare the acoustic environment at the Parks with existing air tour operations to the predicted changes due to the mitigation measures under the ATMP.

The agencies evaluated the noise impacts of the air tours authorized by the ATMP on the resources of each of the Parks, including the Parks' acoustic resources, visitor experience, wildlife, cultural resources and the aesthetic scene. *See* Environmental Screening Forms, Appendix B. The impact analysis provided in the four park-specific Environmental Screening Forms prepared for this ATMP demonstrates that the ATMP does not result in significant impacts when considering the change from existing conditions for each of the four Parks. The analysis also discloses the impacts associated with the use itself; the analysis evaluates the impacts of the number of commercial air tours authorized on designated routes. Park resources and values impacted from air tours, including the acoustic environment, will continue to exist in a condition that will allow the American people to have present and future opportunities to enjoy them. *See* 2006 NPS Management Policies § 1.4.4.

The number of air tours authorized by the ATMP is the same as the number of tours the operators currently conduct, based on the three-year average of tours reported from 2017-2019, with mitigations to protect the resources of the Parks and visitor experience. Thus, the agencies did not find that a study of economic impacts was warranted and do not expect the ATMP to impact visitor spending on air tours or economic activity in the local communities. *See* Environmental Screening Forms, Appendix B.

- **Wildlife**

As noted above, the agencies found that the ATMP would have no effect on federally listed threatened or endangered species and evaluated the impacts of the ATMP on other species of concern protected under the Migratory Bird Treaty Act and the Marine Mammal Protection Act. *See* Appendix E. However, many commenters expressed concerns regarding the effects of commercial air tours on other wildlife species that may be found within one or more of the Parks, or that migrate through the Parks. In particular, many commenters expressed concern regarding impacts on marine mammals and migrating birds. The agencies considered the potential impacts of the ATMP on the Parks' wildlife, including marine mammals and migrating birds. Commercial air tours are expected to have limited to no impacts on wildlife species or their habitat when compared to current conditions due to the proposed commercial air tour routes,

minimum flight altitudes, lateral avoidances of marine mammal haul outs and sensitive nesting areas, time of day restrictions, type of aircraft, and limit on the maximum annual number of flights that will be permitted under the ATMP.

The operating parameters included in the ATMP were developed based on the technical advice provided by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service in consideration of management objectives for each of the Parks including protection of wildlife. The minimum altitudes and lateral avoidance requirements in the ATMP are consistent with recommended protections for marine mammal haul outs, peregrine falcons, nesting shore birds, and other noise sensitive species. The specific locations of these wildlife resources are not called out on the maps included in the ATMP for the protection of these species. The ATMP boundary overlaps with some portions of the Greater Farallones National Marine Sanctuary. Under applicable regulations, flying motorized aircraft at less than 1,000 ft. above the water over Special Wildlife Protection Zones is prohibited, and the failure to maintain a minimum altitude of 1,000 ft. AGL “is presumed to disturb marine mammals or seabirds.” The minimum altitudes required by the ATMP are at least as protective as those in place for Greater Farallones National Marine Sanctuary and provide more protection in many areas.

The ATMP also includes lateral offsets and minimum flight altitudes specifically to protect wildlife on Alcatraz Island which is a regionally significant site for an estimated 10,000 nesting seabirds and waterbirds, as well as a pair of peregrine falcons. The ATMP will minimize the potential for aircraft disturbances of this sensitive site, and increase the likelihood of successful breeding and retention of these nesting colonies, by requiring aircraft to maintain an altitude of 1,500 ft. AGL within the ATMP boundary around Alcatraz Island and requiring a 1,000 ft. lateral avoidance of the Island.

The Parks protect a high diversity of migratory birds, including both native resident and migratory species. Although the agencies are not aware of migratory bird strike issues associated with existing commercial air tour operations within the ATMP boundary, in response to comments expressing concern regarding migratory birds and potential bird strikes, the agencies included a requirement that operators use the FAA Wildlife Strike Database to report any bird strikes that occur within the ATMP boundary and also include information regarding any such bird strikes in their semi-annual reports to the agencies. If this reporting does indicate that bird strikes as a result of commercial air tours are an issue, the ATMP provides for adaptive management measures that could be used to address these and other unanticipated effects to wildlife. The ATMP’s adaptive management provision is addressed below.

- **Wilderness**

Many commenters noted concerns related to the protection of the Phillip Burton Wilderness in Point Reyes, with some commenters taking the position that the Wilderness Act prohibits commercial air tours. Neither the 2006 NPS Management Policies nor the Wilderness Act prohibit overflights. No commercial air tours are permitted to land in the Parks, including within the Phillip Burton Wilderness. Though NPATMA does not require the ATMP to include analysis of impacts to wilderness, consistent with the requirements of NEPA, the agencies evaluated the impacts of the commercial air tours authorized by the ATMP on the qualities of

wilderness character in the development of the ATMP, including impacts on the opportunity for solitude, impacts to the natural quality of wilderness, and impacts to other features of value. This is documented in the Environmental Screening Form for Point Reyes, Appendix B. Further, the ATMP includes limitations that are protective of wilderness character. It authorizes only 143 air tours per year over Point Reyes which are restricted to a single designated route. While the route does cross segments of the Phillip Burton Wilderness, it spends only limited time over the wilderness, leaving the vast majority of the wilderness unimpacted by air tours year-round. Though the analysis in the Environmental Screening Form for Point Reyes demonstrates that noise and visual intrusions from air tours may temporarily disrupt the opportunity for solitude in those parts of the Philip Burton Wilderness overflown by air tours, because of the low limited number of flights, the limited duration of noise, the route used, and the limited duration of potential exposure of air tours make it unlikely that the majority of visitors will encounter noise from air tours within wilderness. If a visitor in wilderness does hear noise from an air tour, it is unlikely, because of the limited number of tours, and the route, that the visitor will hear more than one per day and the noise exposure will be for a very short duration of time. Accordingly, the NPS found that the ATMP is protective of wilderness character and is consistent with Point Reyes' enabling legislation, the NPS 2006 Management Policies and the requirements of NPATMA.

- **Interim Operating Authority**

Two commercial air tour operators hold IOA for a combined total of 5,090 commercial air tours per year over each of the Parks. The ATMP provides that the FAA, through the appropriate FSDO, will update the OpSpecs of all operators with IOA for the Parks to incorporate the terms of the ATMP within 90 days of the date on which the ATMP is fully signed (meaning 90 days from the date on which the ATMP and this ROD have been signed by all required signatories). The operators' OpSpecs currently allow them to overfly the Parks in accordance with their IOA. Once the OpSpecs are modified, only those operators that hold allocations of operations under the ATMP will be permitted to conduct commercial air tours within the ATMP boundary and then all commercial air tours conducted will be required to comply with the ATMP in all respects (except that operators have 180 days from the effective date of the ATMP to equip their aircraft with flight monitoring technology). No air tours will be permitted to be conducted over Muir Woods.

An operator with IOA for the Parks opposed the number of commercial air tours authorized by the ATMP arguing that the annual limits did not allow for growth and that it reduced the number of flights available to operators under IOA. IOA is not property. *See* Notice of Final Opinion on the Transferability of Interim Operating Authority Under the National Parks Air Tour Management Act, 72 Fed. Reg. 6,802 (Feb. 13, 2007). Nor was IOA intended to last indefinitely. It was intended by Congress to be a stopgap measure to preserve the status quo until an ATMP for the Parks could be established. NPATMA specifically provides that IOA terminates a maximum of 180 days after the establishment of an ATMP for a park, 54 U.S.C. § 40128(c)(2)(E), though the agencies determined that because the modification of OpSpecs was required to implement the ATMP, IOA for all of the Parks would terminate when the OpSpecs were modified, and not at some later date. The issuance of IOA was based on operator reported tours conducted either in the year prior to NPATMA's enactment in 2000, or the three-year

average of flights conducted in the three years prior to NPATMA's enactment, whichever was higher. 49 U.S.C. § 40128(c)(2)(A). As noted above, IOA is not based on the most current or reliable operational data and is not verifiable by the agencies. The ATMP allocations are based on current operator reported information.

- **Providing access for individuals with disabilities**

Some commenters requested expanded air tours in order to accommodate or expand access to individuals with disabilities, older persons, or those with mobility issues. However, air tours are not the only way for a person with disabilities or mobility issues to experience the Parks. The NPS works to ensure that people with disabilities can participate in the same programs, activities, and opportunities available to those without disabilities in the most integrated setting possible. The NPS has a full team dedicated to breaking physical and programmatic barriers to make parks more inclusive for people with sensory, physical, and cognitive disabilities including a full accessibility program with accessibility coordinators in all 12 NPS regions. The accessibility coordinators ensure that NPS staff have the tools and training necessary to provide accessible and inclusive outdoor recreation and interpretation opportunities for park visitors. Specific information regarding accessibility at each of the Parks is available at:

- Muir Woods: <https://www.nps.gov/muwo/planyourvisit/accessibility.htm>
- Golden Gate: <https://www.nps.gov/goga/planyourvisit/accessibility.htm#:~:text=The%20NPS%20Golden%20Gate%20App,for%20free%20before%20you%20arrive.>
- Point Reyes: <https://www.nps.gov/pore/planyourvisit/accessibility.htm#:~:text=Call%20415%20D669%201534%20or,the%20Point%20Reyes%20Lighthouse%20page.>
- San Francisco Maritime: <https://www.nps.gov/safr/planyourvisit/accessibility.htm>

- **NEPA compliance**

Commenters in general noted concerns that an environmental analysis was not released for public review and comment and either advocated for the consideration of various alternatives or criticized that consideration and analysis of alternatives was required under NEPA. Consistent with the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA, agencies may, but are not required to, develop a range of alternatives to the proposed action when using a categorical exclusion to comply with NEPA. *See* 40 CFR §§ 1501.4, 1502.14. Actions covered by categorical exclusions by definition do not have significant impacts and therefore are not subject to the requirement to develop alternatives to reduce significant impacts. In this case, the agencies evaluated the potential impacts of the proposed action (ATMP) when compared to current conditions, and determined that the proposed ATMP would not result in significant impacts to the Parks' resources and that no significant impacts from air tours have been observed at the Parks in the past. The agencies considered actions to reduce impacts to the Parks' resources and included those in the ATMP, e.g. altitude and route restrictions. Public review of categorical exclusions is not required. Public scoping is also not required where a categorical exclusion is applied. Though NPATMA provides that both agencies must "sign the environmental decision document required by section 102 of [NEPA] which may include a finding of no significant impact, an environmental assessment, or an environmental

impact statement and the record of decision” the agencies do not interpret NPATMA to preclude the application of a categorical exclusion for an ATMP. *See* 49 U.S.C. § 40128(b)(2).

- **Tribal consultation**

The tribal consultation conducted by the agencies prior to the signing of this ROD is described above in the section that discusses the agencies’ compliance with the National Historic Preservation Act. The agencies remain committed to engaging in tribal consultation after the ATMP is implemented to address ongoing tribal concerns as needed. Further, the ATMP itself includes mechanisms that could be used to address tribal concerns post-implementation. The Federated Indians of Graton Rancheria may be invited to the annual meeting provided for in Section 3.7A of the ATMP to discuss their concerns directly with both the operators and the agencies. Section 3.5 of the ATMP authorizes the NPS to set temporary no-fly periods for special events, including tribal events, ceremonies, or other practices, with advance notice to the operators. Section 8.0 of the ATMP provides for adaptive management measures to be taken as a result of tribal input or information received through tribal consultation, without a formal plan amendment if the impacts of any changes are within the impacts already analyzed by the agencies in their compliance documentation for the ATMP. If tribal concerns cannot be addressed through adaptive management, the agencies may consider amending the ATMP consistent with the process outlined in Section 9.0 of the ATMP. In addition, the aircraft monitoring technology that operators are required to install and use (Section 4.0), coupled with the ATMP’s reporting requirements (Section 3.6), will not only aid the agencies in ensuring compliance with the terms and conditions of the ATMP, but will also aid in determining whether overflights that may be concerning to the Federated Indians of Graton Rancheria are commercial air tours, or some other type of overflight not subject to the requirements of NPATMA.

- **Compliance with NPS-specific laws and policies**

In managing National Park System units, the NPS is bound by the Organic Act of 1916, 54 U.S.C. §§ 100101 *et seq.*, which requires the NPS to manage parks to “conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” In addition, NPS management of System units is guided by the 2006 NPS Management Policies and other policy and guidance documents that do not apply to the FAA. The Statements of Compliance for Golden Gate, Point Reyes and San Francisco Maritime, Appendix G, detail the NPS’s compliance with its Organic Act, as well as NPS policy documents.

DECISION

The undersigned have carefully considered the agencies’ common and respective goals in relation to the issuance of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore including the environmental impacts of their decision, the mitigation measures available to preserve the Parks’ resources, visitor experience and tribal lands, and aviation safety. Based on the record of this proposed Federal action, and under the authority delegated to the undersigned by the Administrator of the FAA and the Director of the

NPS, the undersigned find that the issuance of the Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore is reasonably supported. The undersigned hereby direct that action be taken, together with the necessary related and collateral actions, to carry out the agency decisions as detailed in this ROD including the issuance of an Air Tour Management Plan Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore and issuance or modification of applicable operations specifications.

Approved by:

 <div> <div>FRANK LANDS</div> <div>2023.01.10 10:13:46 -08'00'</div> </div> <hr/> <div> <div>Frank W. Lands</div> <div>Date</div> <div>Regional Director</div> <div>Interior Regions 8, 9, 10 & 12</div> <div>National Park Service</div> </div>	<div> <div>ERIK AMEND</div> <div>Digitally signed by ERIK AMEND Date: 2023.01.09 15:48:35 -08'00'</div> </div> <hr/> <div> <div>Erik Amend</div> <div>Date</div> <div>Regional Administrator (Acting)</div> <div>Western-Pacific Region</div> <div>Federal Aviation Administration</div> </div>
<div> <div>RAYMOND SAUVAJOT</div> <div>Digitally signed by RAYMOND SAUVAJOT Date: 2023.01.10 08:54:43 -05'00'</div> </div> <hr/> <div> <div>Raymond M. Sauvajot</div> <div>Date</div> <div>Associate Director</div> <div>Natural Resource Stewardship and Science Directorate</div> <div>National Park Service</div> </div>	<div> <div>KEVIN W. WELSH</div> <div>Digitally signed by KEVIN W. WELSH Date: 2023.01.09 10:29:24 -05'00'</div> </div> <hr/> <div> <div>Kevin Welsh</div> <div>Date</div> <div>Executive Director</div> <div>Office of Environment & Energy</div> <div>Federal Aviation Administration</div> </div>

RIGHT OF APPEAL

This Record of Decision constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110.

Appendices

- A. Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore
- B. Environmental Screening Forms for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore
- C. Categorical Exclusion Documentation Form
- D. FAA Categorical Exclusion Adoption
- E. Section 7 Endangered Species Act No Effect Determination and Evaluation of Other Species of Concern
- F. National Historic Preservation Act: Section 106 Compliance Documentation
- G. NPS Statement of Compliance
- H. Summary of Public Comments and Comment Analysis on the Draft Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore
- I. Coastal Zone Management Act Compliance Documentation (without voluminous attachments)

APPENDIX A

Final Air Tour Management Plan for
Golden Gate National Recreation Area,
Muir Woods National Monument,
San Francisco Maritime National Historical
Park, and Point Reyes National Seashore

**FINAL AIR TOUR
MANAGEMENT PLAN
GOLDEN GATE NATIONAL RECREATION AREA
MUIR WOODS NATIONAL MONUMENT
SAN FRANCISCO MARITIME NATIONAL HISTORICAL PARK
POINT REYES NATIONAL SEASHORE**

SUMMARY

This Air Tour Management Plan (ATMP) provides the terms and conditions for commercial air tours conducted over Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks) pursuant to the National Parks Air Tour Management Act (Act) of 2000.

1.0 INTRODUCTION

The Act requires that commercial air tour operators conducting or intending to conduct commercial air tours over a unit of the National Park System apply to the Federal Aviation Administration (FAA) for authority before engaging in that activity. The Act further requires that the FAA in cooperation with the National Park Service (NPS) establish an ATMP for each National Park System unit for which one or more applications has been submitted, unless that unit is exempt from this requirement.¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for that park.

The objective of this ATMP is to develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tours on natural and cultural resources, visitor experiences and tribal lands.

2.0 APPLICABILITY

This ATMP applies to all commercial air tours over the Parks and commercial air tours within ½ mile outside the boundary of the Parks, as depicted in Figure 1 below. A commercial air tour subject to this ATMP is any flight, conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing over the Parks, or within ½ mile of the boundary of the Parks, during which the aircraft flies:

- (1) Below 5,000 feet above ground level (except solely for the purposes of takeoff or landing, or necessary for safe operation of an aircraft as determined under the

¹ The Act provides an exemption to the ATMP requirement for parks with 50 or fewer commercial air tour operations each year unless the exemption is withdrawn by the Director of NPS. *See* 49 U.S.C. § 40128(a)(5). As an alternative to an ATMP, the agencies also have the option to execute voluntary agreements with all operators operating at any of the parks.

The park protects 19 separate ecosystems and numerous watersheds. It is also home to more than 1,250 plant and animal species, including 37 threatened and endangered species such as the threatened northern spotted owl (*Strix occidentalis caurina*). It provides sanctuary for nesting seabirds such as Brandt's cormorants (*Phalacrocorax penicillatus*) and common murrelets (*Uria aalge*), as well as peregrine falcons (*Falco peregrinus*) which are gradually recovering in the San Francisco Bay Area. It also provides protection for marine mammals under the Marine Mammal Protection Act.

The purpose of Golden Gate National Recreation Area is to offer national park experiences to a large and diverse urban population while preserving and interpreting the outstanding natural, historic, scenic, and recreational values of the park lands.

Muir Woods National Monument is in Marin County, California, just a few miles north of San Francisco. The 558-acre monument preserves one of the last remaining ancient redwood forests in the Bay Area. Some of the redwoods are nearly 1,000 years old and reach heights of more than 250 feet. Today, Muir Woods National Monument is home to more than 380 different plants and animals. Redwood Creek, the principal stream in the monument, runs clean and clear beneath the towering trees. Its waters are home to federally endangered coho salmon and threatened steelhead trout—keystone species in many Pacific ecosystems. More than 1 million visitors per year come to enjoy the monument and marvel at the redwood forest and its wildlife. Its natural soundscape is a highly valued part of the visitor experience.

The purpose of Muir Woods National Monument is to preserve the primeval character and ecological integrity of the old-growth redwood forest for scientific values and inspiration.

San Francisco Maritime National Historical Park was established to preserve and interpret the history and achievements of seafaring Americans and the nation's maritime heritage, especially on the Pacific coast. The 50-acre park maintains the largest and most diverse collection of national historic landmark ships in the United States, representing a pivotal period of maritime commerce on the West Coast as the industry shifted from sail to mechanical power. Through preservation and interpretation of historic ships, extensive museum collections, traditional maritime skills, and its San Francisco Bay setting, San Francisco Maritime National Historical Park promotes the understanding and enjoyment of the nation's West Coast maritime heritage. The park's ships and small craft provide visitors a rare opportunity to experience the sights, sounds, smells, and feel of the maritime environment, both at the pier and on the bay. People can hear the sounds of water, wildlife and maritime activities.

At Hyde Street Pier, which features a number of historic vessels, maritime structures, and exhibits, visitors can enjoy the national historic landmark ships and watch maritime skills in action in the Shipwright and Boat Shops. The pathways of the Aquatic Park National Historic Landmark District lead to the Maritime Museum, a striking, Streamline Moderne building filled with 1930s Works Progress Administration artwork. Outside the bathhouse, the Aquatic Park cove and beach are protected by the curved Municipal Recreational Pier. The park's extensive collection of artifacts, books, oral histories,

photographs, vessel plans, documents, and other archival materials are located at the Maritime Research Center.

Point Reyes National Seashore encompasses more than 71,000 acres of beaches, coastal cliffs and headlands, marine terraces, coastal uplands, and forests and includes all tide and submerged lands to 0.25 miles offshore. An additional 15,000 acres of the North District of Golden Gate National Recreation Area, including all NPS lands north of Bolinas-Fairfax Road, are managed by park staff under a regional management directive. Two no-take state marine reserves, three special closure areas, and three state marine conservation areas are also located within the park's legislated boundary. The park shares a marine boundary with the Greater Farallones National Marine Sanctuary and the Cordell Bank National Marine Sanctuary is located further offshore.

Twenty-eight threatened and endangered species are present within the park's boundary, including the threatened northern spotted owl. The park provides sanctuary for marine mammals such as the harbor seal, supports more than 900 plant species, about 17% of the California flora, and more than 490 species of birds have been recorded in the park, representing 52% of the species of avian fauna of North America.

The human history of the Point Reyes peninsula extends to more than 5,000 years ago and includes the long history of the Coast Miwok people, a relationship which continues to this day. More than 120 archeological sites representing Coast Miwok history and culture have been identified within the park and have yielded some of the most significant information on California Indian history in the San Francisco Bay region. The park has about 400 historic structures including the historic Point Reyes Lighthouse built in 1870 and two national historic landmarks—the Point Reyes Lifeboat Station and the Drakes Bay Historic and Archaeological District.

Approximately 18,000 acres of Point Reyes National Seashore is currently under agricultural production within the pastoral zone. In the North District of Golden Gate National Recreation Area an additional 10,000 acres is currently used for grazing. The park also includes two ranching historic districts, listed in the National Register – the Olema Valley Dairy Ranches Historic District and the Point Reyes Peninsula Dairy Ranches Historic District.

The almost 33,000-acre Phillip Burton Wilderness offers an extraordinary opportunity for solitude and unconfined recreation in untrammelled terrestrial and marine environments and includes one of only two marine wilderness areas in the national park system.

Point Reyes National Seashore was established for public benefit and inspiration, and protects a rugged and wild coastal peninsula and surrounding waters, connecting native ecosystems, enduring human history and recreational, scientific, and educational opportunities.

Management objectives. The following management objectives for the Parks relate to the development of this ATMP:

- Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Muir Woods National Monument: Protect wildlife and

- wildlife habitat, including known nesting areas and marine mammal haul outs and protect soundscapes.
- Point Reyes National Seashore: Protect wilderness character; protect wildlife and wildlife habitat, including known nesting areas and marine mammal haul outs.

3.0 CONDITIONS FOR THE MANAGEMENT OF COMMERCIAL AIR TOUR OPERATIONS

3.1 Commercial Air Tours Authorized

Under this ATMP 2,548 commercial air tours per year are authorized. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument.

Appendix A identifies the operators authorized to conduct commercial air tours and annual flight allocations.

3.2 Commercial Air Tour Routes and Altitudes

Commercial air tours authorized under this ATMP shall be conducted on the routes and altitudes in Figures 2 through 5 below for each operator and aircraft type (Appendix C contains enlarged Figures 2 through 5). Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft. Due to the location and proximity of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park (the two parks share a boundary), all air tour routes authorized by this ATMP fly over both parks. The only authorized air tour route that flies over Point Reyes National Seashore also flies over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

All commercial air tours must maintain a 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. The routes described below and depicted in Figures 2, 3, 4, and 5 maintain these avoidance distances of currently known nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. All commercial air tours must also maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island and a minimum altitude of 1,500 ft AGL within the ATMP boundary around Alcatraz Island.

Air tours conducted with fixed-wing aircraft will fly no lower than 1,000 to 2,500 feet (ft.) AGL, depending on location as depicted in Figures 2, 4, and 5, but will fly no lower than 2,000 ft. AGL over land-based wilderness in Point Reyes National Seashore (Figures 2 and 5). Air tours conducted via fixed-wing aircraft are restricted to three routes.

- Blue Route: Air tours conducted via the Blue Route will enter the ATMP boundary at the location shown by flight procedure callout #1 in Figures 2, 4, and 5, at a minimum altitude 2,500 ft. AGL. Aircraft must maintain this altitude until they reach the location identified by flight procedure callout #2 in Figures 2, 4 and 5, at which time they may begin descent to 1,500 ft. AGL. Aircraft will maintain 1,500 ft. AGL when flying over the area within the ATMP boundary for

the remainder of the air tour, except that they may fly at 1,000 ft. AGL over the area within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island.

- Red Route: Air tours conducted via the Red Route will enter the ATMP boundary at the location shown by flight procedure callout #3 in Figures 2, 4, and 5, at a minimum altitude of 2,500 ft. AGL at the entrance to the ATMP boundary. Aircraft must maintain 2,500 ft. AGL over Bolinas Ridge and Inverness Ridge, depicted as flight procedure callout #4 in Figures 2 and 5. Air tours begin descent to 1,500 ft. AGL at the location identified by flight procedure callout #5 in Figures 2 and 5. Air tours then exit the ATMP boundary as depicted in Figures 2 and 5 and reenter the ATMP boundary at the location shown by flight procedure callout #6, and must maintain a minimum altitude of 1,500 ft. AGL. Air tours must laterally avoid Ranch Core Area B by flying 1,000 ft. to the north of this area as depicted in Figures 2 and 5. Air tours exit the ATMP boundary at the location identified by flight procedure callout #7 in Figures 2 and 5 at a minimum altitude of 1,500 ft. AGL. Air tours on the Red Route must remain outside the ATMP boundary until they reach the location identified by flight procedure callout #9 in Figures 2 and 5. Aircraft will maintain 1,500 ft. AGL when flying over the area within the ATMP boundary for the remainder of the air tour, except that they may fly at 1,000 ft. AGL over the area within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least $\frac{3}{4}$ mile offshore from Double Point, a lateral avoidance of $\frac{1}{2}$ mile offshore from Duxbury Reef, and a lateral avoidance of at least 1,000 ft. from Alcatraz Island.
- Green Route: Air tours conducted via the Green Route will maintain a minimum altitude of 1,500 ft. AGL within the ATMP boundary, except that they may fly at 1,000 ft. AGL within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island

Eight routes are authorized for helicopter tours over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park as depicted in Figure 3 below. Air tours conducted with helicopters will fly no lower than 1,000 to 1,500 ft. AGL, depending on location, as depicted in Figure 3. Commercial air tours on these routes must maintain a minimum altitude of 1,000 ft. AGL, except that a minimum altitude of 1,500 ft. AGL is required when flying over the area within the ATMP boundary around Alcatraz Island and while flying over lands within the boundary of Golden Gate National Recreation Area in Marin County. Commercial air tours must also maintain a lateral avoidance at least 1,000 ft. from Alcatraz Island.

Except when necessary for takeoff or landing, or in an emergency or to avoid unsafe conditions, or unless otherwise authorized for a specified purpose, operators may not deviate from these designated routes and altitudes.

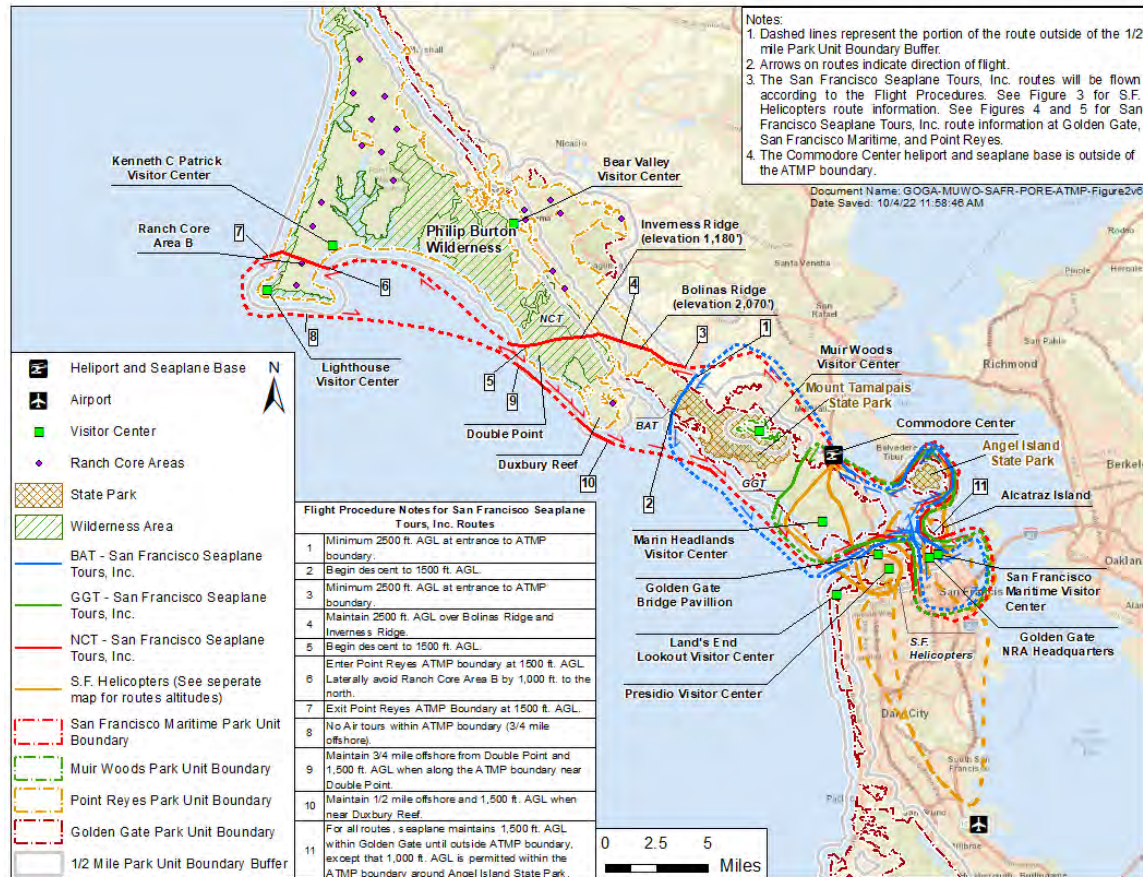


Figure 2. All commercial air tour routes over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

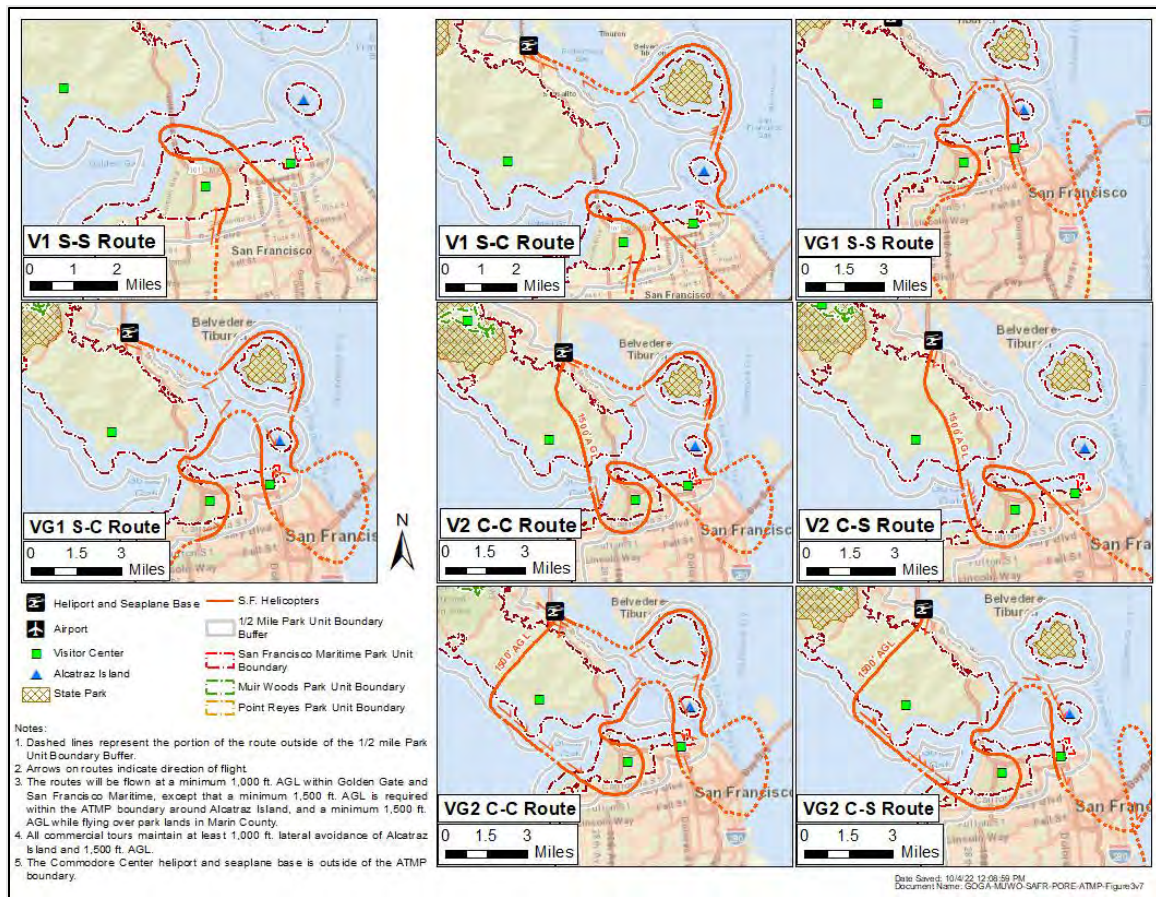


Figure 3. Commercial air tour routes for helicopters over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

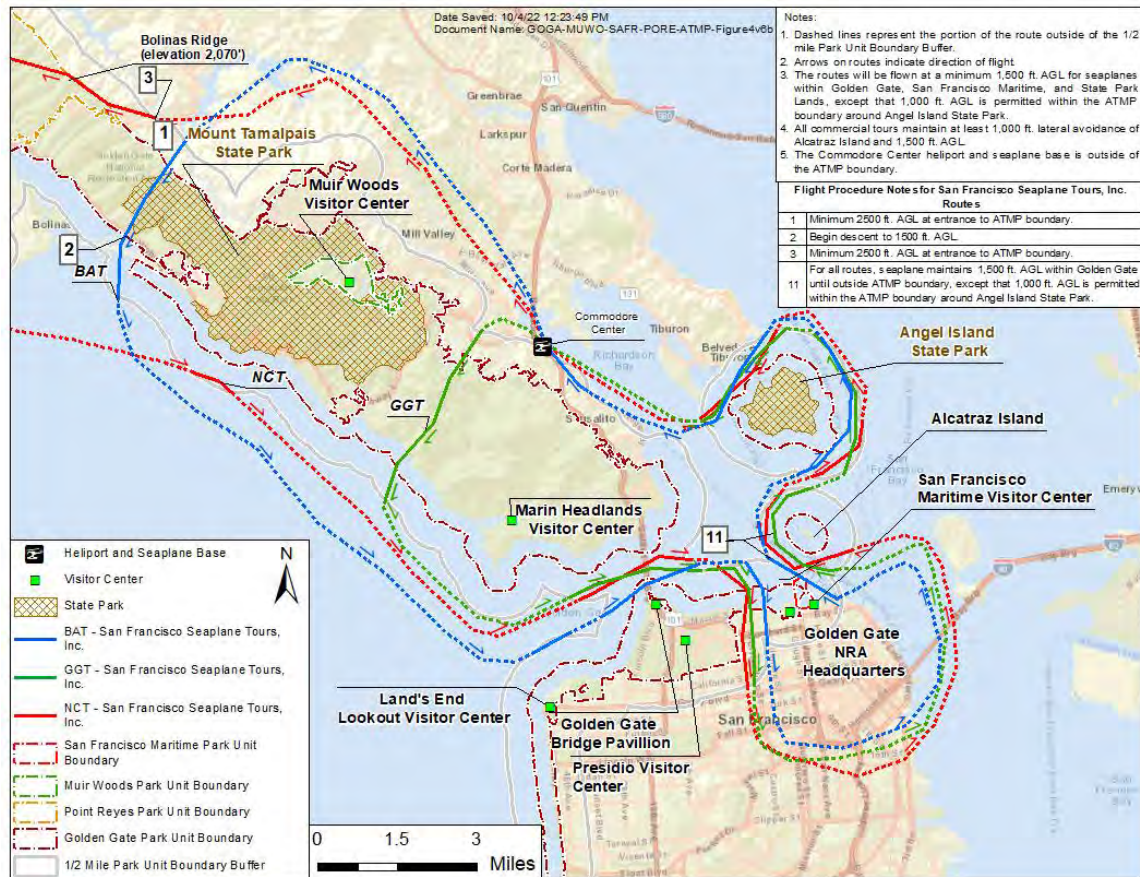


Figure 4. Commercial air tour routes for fixed-wing aircraft over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

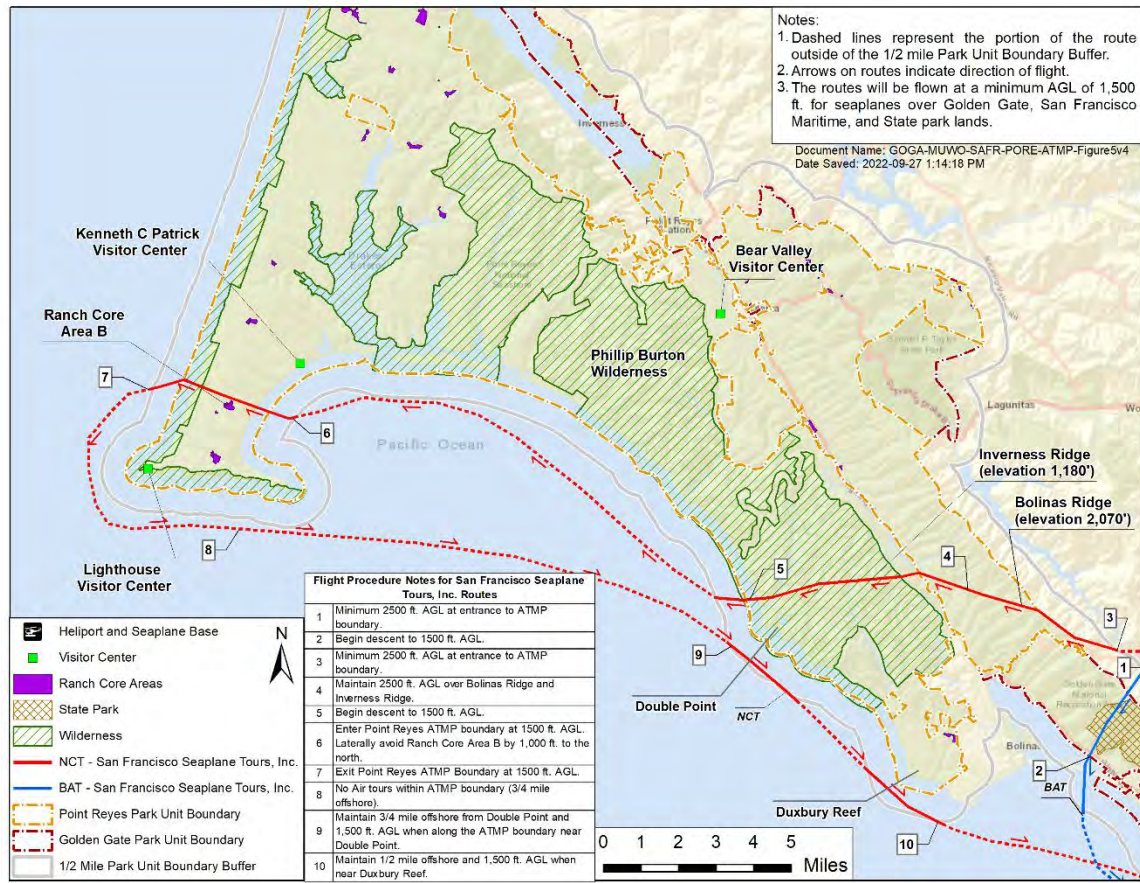


Figure 5. Commercial air tour route over Point Reyes National Seashore

3.3 Aircraft Type

The aircraft types authorized to be used for commercial air tours are identified in Appendix A. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced. In addition to any other applicable notification requirements, operators will notify the FAA and the NPS in writing of any prospective new or replacement aircraft and obtain concurrence before initiating air tours with the new or replacement aircraft.

3.4 Day/Time

Except as provided in Section 3.8, “Quiet Technology Incentives,” air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park may operate from 9:00 AM until 30 minutes after sunset, as defined by the National Oceanic and Atmospheric Administration (NOAA).² Air tours of Point Reyes National Seashore may operate from 12:00 PM to 5:00 PM. Air tours may operate any day of the year, except under circumstances provided in Section 3.5 “Restrictions for Particular Events.”

² Sunrise and sunset data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

3.5 Restrictions for Particular Events

The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management. Absent exigent circumstances or emergency operations, the NPS will provide a minimum of 15 days written notice to the operator for any restrictions that temporarily restrict certain areas or certain times of day, or 60 days written notice to the operator for any full day restrictions. Events may include tribal ceremonies or other similar events.

3.6 Required Reporting

3.6A Air Tour Reporting: Operators will submit to the FAA and the NPS semi-annual reports regarding the number of commercial air tours within the ATMP boundary that are conducted by the operators. These reports will also include the flight monitoring data required under Section 4.1 of this ATMP and such other information as the FAA and the NPS may request. Reports are due to both the FAA and the NPS no later than 30 days after the close of each reporting period. Reporting periods are January 1 through June 30 and July 1 through December 31. Operators shall adhere to the requirements of any reporting template provided by the agencies.

3.6B Bird Aircraft Strike Reporting: Operators will report all bird strikes that occur during commercial air tours within the ATMP boundary per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes, using OMB approved form No. 2120-0045, and include these reports in the semi-annual reports required by section 3.6A.

3.7 Additional Requirements

3.7A Operator Training and Education: When made available by park staff, operators/pilots will take at least one training course per year conducted by the NPS. The training will include park information that the operators can use to further their own understanding of park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients. For example, trainings may include natural resources, cultural resources, or visitor use specific topics.

3.7B Annual Meeting: For the first five years after the signing of the ATMP, park staff, the local FAA Flight Standards District Office (FSDO), and the operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. Thereafter, this annual meeting will occur if requested by either of the agencies. This annual meeting could be conducted in conjunction with any required annual training.

3.7C In-Flight Communication: For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

3.7D Daily Air Tour Allocations: This ATMP includes restrictions on the number of air tours that may be conducted each day on the route authorized over Point Reyes National Seashore (Red Route). On Standard Days, one commercial air tour may be conducted per day. Up to five Flex Days are permitted per year on which two commercial air tours may be conducted per day. These restrictions are also identified in the Table 1 included in Appendix A.

3.7E Hovering: Aircraft hovering in place is prohibited.

3.7F Non-transferability of Allocations: Annual operations under this ATMP are non-transferable. An allocation of annual operations may be assumed by a successor purchaser that acquires an entity holding allocations under this ATMP in its entirety. In such case, the prospective purchaser shall notify the FAA and NPS of its intention to purchase the operator at the earliest possible opportunity to avoid any potential interruption in the authority to conduct commercial air tours under this ATMP. This notification must include a certification that the prospective purchaser has read and will comply with the terms and conditions in the ATMP. The FAA will consult with the NPS before issuing new or modified operations specifications (OpSpecs) or taking other formal steps to memorialize the change in ownership.

3.8 Quiet Technology Incentives

This ATMP incentivizes the use of quiet technology aircraft by commercial air tour operators. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft, may request to be allowed to conduct air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park beginning one hour after sunrise, as defined by NOAA, on all days that flights are authorized,³ and the operator with allocations for Point Reyes National Seashore may request to conduct tours of Point Reyes National Seashore beginning at 11:00 AM on all days that flights are authorized. Because aviation technology continues to evolve and advance and the FAA updates its noise certification standards periodically, the aircraft eligible for this incentive will be analyzed on a case-by-case basis at the time of the operator's request to be considered for this incentive. The NPS will periodically monitor conditions of the Parks and coordinate with the FAA to assess the effectiveness of this incentive. If implementation of this incentive results in unanticipated effects on the Parks' resources or visitor experience, further agency action may be required to ensure the protection of the Parks' resources and visitor experience.

4.0 COMPLIANCE

On the effective date of this ATMP, all commercial air tours within the ATMP boundary must comply with the terms of this ATMP in all respects, except as provided in Section 4.1 below. The NPS and the FAA are both responsible for the monitoring and oversight of the ATMP. If the NPS identifies instances of non-compliance, the NPS will report

³ Sunrise data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

such findings to the FAA's FSDO with geographic oversight of the Parks. The public may also report allegations of non-compliance with this ATMP to the FSDO. The FSDO will investigate and respond to all written reports consistent with applicable FAA guidance.

Investigative determination of non-compliance may result in partial or total loss of authorization to conduct commercial air tours authorized by this ATMP. Any violation of OpSpecs shall be treated in accordance with FAA Order 2150.3, *FAA Compliance and Enforcement Program*.

4.1 Aircraft Monitoring Technology

Operators are required to equip all aircraft used for air tours with flight monitoring technology, to use flight monitoring technology during all air tours under this ATMP, and to report flight monitoring data as an attachment to the operator's semi-annual reports. The required flight monitoring data shall be provided in a file format approved by the agencies, such as a .csv or .xlsx format. Data must include the following information for each row of data (i.e., each ping):

- Unique flight identifier
- Latitude
- Longitude
- Geometric altitude
- Tail number
- Date
- Time stamp
- Operator and Doing Business As (DBA), if different
- Aircraft type
- Aircraft model

The ping rate should be set to a maximum of 15 seconds. Operators already using aircraft equipped with flight monitoring technology shall ensure it meets the performance standards listed above or acquire and install acceptable flight monitoring technology within 180 days of the effective date of this ATMP. For aircraft not already equipped with flight monitoring technology, within 180 days of the effective date of this ATMP, operators shall equip those aircraft with suitable flight monitoring technology.

5.0 JUSTIFICATION FOR MEASURES TAKEN

The provisions and conditions in this ATMP are designed to protect the Parks' resources and visitor experience from the effects of commercial air tours, and support NPS management objectives for the Parks.

Under the Act, the FAA was required to grant Interim Operating Authority (IOA) for commercial air tours over the Parks or outside the Parks but within ½ mile of their boundaries. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than an annual limit.

The total number of air tours authorized under this ATMP is consistent with the existing air tours reported over the Parks. It is based on the 3-year average of the total air tours reported in 2017, 2018 and 2019. The annual flight limits in this ATMP are intended to protect visitor experience and wildlife throughout the Parks, tribal use of the Parks, and Phillip Burton Wilderness in Point Reyes National Seashore by limiting the number of potential disturbances caused by commercial air tours. The ATMP does not authorize any air tours over Muir Woods National Monument which maintains the current level of air tour activity (zero tours per year) based on operator reporting, and preserves the park's natural soundscapes.

The condition that commercial air tours fly at least 1,000 ft. laterally and 1,500 ft vertically from Alcatraz Island and 1,000 ft. vertically and laterally of other areas within Golden Gate National Recreation Area and San Francisco Maritime National Historical Park is intended to protect nesting seabird colonies, peregrine falcon nests, or marine mammal haul outs. Brandt's cormorants (*Phalacrocorax penicillatus*) and common murres (*Uria aalge*) are colonial nesting seabirds that are known to be sensitive to visual and noise disturbance and are protected under the Migratory Bird Treaty Act. Disturbance from overflights can cause agitation or flushing, and even lead to nest failures. Studies of aircraft disturbance to both Brandt's cormorants and common murres support a 1,000 ft. AGL buffer to prevent flushing, with greater distance to prevent all forms of disturbance.^{4,5,6,7}

Furthermore, Alcatraz Island is a regionally significant site for an estimated 10,000 nesting seabirds and waterbirds, as well as a pair of peregrine falcons. Because of its standing as one of the most sensitive wildlife locations in the Golden Gate National Recreation Area, the agencies established a minimum altitude of 1,500 ft. AGL around Alcatraz to further minimize disturbance to the sensitive waterbird nesting colonies. Minimizing the potential for aircraft disturbances by maintaining 1,500 ft. AGL over Alcatraz and a 1,000 ft. lateral avoidance of the island will increase the likelihood of successful breeding and retention of these waterbird colonies for future conservation.

Harbor seals (*Phoca vitulina*) have a significant haul out and pupping area in Bonita Cove, just adjacent to Point Bonita. Harbor seals are sensitive to visual and noise disturbance and are protected under the Marine Mammal Protection Act. Disturbance at

⁴ Fuller, A. R., McChesney, G.J. & R.T. Golightly. (2007). Aircraft Disturbance to Common Murres (*Uria aalge*) at a Breeding Colony in Central California, USA. *Waterbirds*, 41(3):257-267.

⁵ Capitolo, P.J., McChesney, G.J., Carter, H.R., Parker, M.W., Eigner, L.E. & Golightly, R.T. (2014). Changes in breeding population sizes of Brandt's Cormorants *Phalacrocorax penicillatus* in the Gulf of the Farallones, California, 1979–2006. *Marine Ornithology* 42: 35–48.

⁶ Rojek, N.A., Parker, M.W., Carter, H.R. & McChesney, G.J. (2007). Aircraft and vessel disturbances to Common Murres *Uria aalge* at breeding colonies in central California, 1997–1999. *Marine Ornithology* 35: 67–75.

⁷ Fuller, A. R., G.J. McChesney, and R.T. Golightly. (2018). Aircraft disturbance to Common Murres (*Uria aalge*) at a breeding colony in central California, USA. *Waterbirds* 41:257-267.

haul out sites causes seals to flush into the water, expending extra energy. NOAA set a minimum altitude of 1,000 ft. AGL by regulation for aircraft flying over haul out sites in the Greater Farallones National Marine Sanctuary in order to prevent disturbances to harbor seals.⁸ Though the ATMP does not depict the location of marine mammal haul outs, due to the sensitivity of these resources, the designated routes and minimum altitudes in ATMP require operators to maintain minimum altitude of 1,500 ft. AGL when commercial air tours fly over or near these areas. This minimum altitude was set because it will provide greater protection for this sensitive species.

The condition that in certain locations the commercial air tours fly no lower than 1,500 ft. AGL over Point Reyes National Seashore and those areas of Golden Gate National Recreation Area that contain northern spotted owl habitat is consistent with avoidance recommendations for northern spotted owls. Noise from a fixed-wing aircraft at 1,500 ft. AGL (DHC- 2 Beaver floatplane, 70 decibels (dB) L_{max}) is below the sound-only injury threshold of 92 dB for northern spotted owls.⁹

Minimum altitudes required over land-based wilderness in Point Reyes National Seashore will improve preservation of wilderness character and visitor experiences on the ground by reducing the intensity of air tour noise to visitors on the ground. Additionally, these minimum altitudes are also more consistent with the guidance provided by FAA Advisory Circular 91-36D, Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas.

The vertical and lateral avoidance of the Core Ranch Area B and other Core Ranch Areas at Point Reyes National Seashore are intended to limit sound impacts and minimize disturbances to permitted dairy ranch operations and associated residential uses in the Point Reyes Peninsula Dairy Ranches Historic District.

Sunrise and sunset are important times of the day for wildlife and visitor use and experience. Biologically important behaviors for many species occur during this time, such as the dawn chorus for songbirds, foraging, and communication. Wildlife viewing is often conducted during this time of day as well. Day/time restrictions have been included in this ATMP to create quiet periods of the day during which noise from commercial air tours would not impede these critical wildlife behaviors. These restrictions also allow for opportunities for visitors to enjoy natural sounds at all of these parks and align with park management objectives for wilderness areas in Point Reyes National Seashore. Restrictions for particular events are intended to prevent noise interruptions of NPS events or tribal practices.

The condition that operators report bird strikes is included since the Parks protect a high diversity of migratory birds along the Pacific Flyway, including both native resident and migratory species. While the agencies are not aware of migratory bird strike issues associated with air tours over the Parks, if reporting indicates that air tour bird strikes are

⁸ 15 CFR § 922.82(a)(11).

⁹ Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, Arcata Fish and Wildlife Office, Arcata, CA, July 26, 2006, and Revised Northern Spotted Owl and Marbled Murrelet Disturbance Disruption Tables, August 9, 2012.

an issue, the agencies will work to remedy this problem with the operators through measures that could involve adjusting air tour routes and hours of operation, temporary no fly periods, or utilizing new technologies.

Operator training and education will provide opportunities to enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour companies and their clients. The annual meeting will facilitate effective implementation of the ATMP because it will be used to review and discuss implementation of this ATMP between Park staff, local FAA FSDO, and all operators. It will thus serve to ensure that air tour operators remain informed regarding the terms and conditions of this ATMP, including any adaptive management measures or amendments, and are made aware of new or reoccurring concerns regarding the Parks' resources.

The condition that commercial air tours may not hover in place is intended to minimize disturbances to noise sensitive wildlife and visitor experience.

The requirements to equip aircraft with flight monitoring technology, to use flight monitoring technology during all air tours under this ATMP, and to report flight monitoring data as an attachment to the operator's semi-annual reports are necessary to enable the agencies to appropriately monitor operations and ensure compliance with this ATMP.

6.0 NEW ENTRANTS

For the purposes of this ATMP, a "new entrant" is a commercial air tour operator that has not been granted any operations under this ATMP or that no longer holds operations under this ATMP at the time of the application. New entrants must apply for and be granted operating authority before conducting commercial air tours over the lands and waters covered by this ATMP.

The FAA and the NPS will publish additional information for interested parties about the form and required content of a new entrant application. The FAA and the NPS will jointly consider new entrant applications and determine whether to approve such applications. Review of applications submitted prior to the effective date of this ATMP will commence within six months of the effective date. Applications submitted after that time will be considered no less frequently than every three years from the effective date of this ATMP.

If any new entrant is granted operating authority under this ATMP, the FAA will issue OpSpecs (and, if necessary, will revise OpSpecs of operators whose allocation of operating authority changes due to accommodation of a new entrant) within 90 days of the publication of an amended ATMP or of the effective date of ATMP changes implemented through the adaptive management process.

7.0 COMPETITIVE BIDDING

When appropriate, the FAA and the NPS will conduct a competitive bidding process pursuant to the criteria set forth in 49 U.S.C. § 40128(a)(2)(B) and other criteria

developed by the agencies. Competitive bidding may be appropriate to address: a new entrant application; a request by an existing operator for additional operating authority; consideration by the agencies of park-specific resources, impacts, or safety concerns; or for other reasons.

The agencies will request information necessary for them to undertake the competitive bidding process from operators. Operators who do not provide information in a timely manner may be disqualified from further consideration in the competitive bidding process.

Competitive bidding may necessitate an amendment to this ATMP, additional environmental review, and/or the issuance of new or revised OpSpecs. If updated OpSpecs are required, they will be issued within 90 days.

8.0 ADAPTIVE MANAGEMENT

Adaptive management allows for minor modifications to this ATMP without a formal ATMP amendment if the impacts of such changes are within the impacts already analyzed by the agencies under the National Environmental Policy Act, the National Historic Preservation Act, the Coastal Zone Management Act, and the Endangered Species Act. Adjustments to the number of commercial air tours allocated to individual operators as a result of the competitive bidding process and minor changes to routes, altitudes, or other operating parameters are examples of adaptive management measures that may not require a formal ATMP Amendment. Such modifications may be made if: 1) the NPS determines that they are necessary to avoid adverse impacts to park resources, values, or visitor experiences; 2) the FAA determines the need for such changes due to safety concerns; or 3) the agencies determine that appropriate, minor changes to this ATMP are necessary to address new information (including information received through tribal input and/or consultation) or changed circumstances.

9.0 AMENDMENT

This ATMP may be amended at any time: if the NPS, by notification to the FAA and the operators, determines that the ATMP is not adequately protecting park resources and/or visitor enjoyment; if the FAA, by notification to the NPS and the operators, determines that the ATMP is adversely affecting aviation safety and/or the national aviation system; or, if the agencies determine that appropriate changes to this ATMP are necessary to address new information or changed circumstances that cannot be addressed through adaptive management.

The FAA and the NPS will jointly consider requests to amend this ATMP from interested parties. Requests must be made in writing and submitted to both the FAA and the NPS. Requests must also include justification that includes information regarding how the requested amendment: is consistent with the objectives of this ATMP with respect to protecting park resources, or visitor use and enjoyment; and would not adversely affect aviation safety or the national aviation system. The FAA and the NPS will publish

additional information for interested parties about the form and manner for submitting a request.

Increases to the total number of air tours authorized per year under this ATMP resulting from accommodation of a new entrant application or a request by an existing operator will require an amendment to this ATMP and additional environmental review. Notice of all amendments to this ATMP will be published in the Federal Register for notice and comment.

10.0 CONFORMANCE OF OPERATIONS SPECIFICATIONS

New OpSpecs that incorporate the operating parameters set forth in this ATMP will be issued within 90 days of the date of signature on this ATMP.

11.0 EFFECTIVE DATE

This ATMP is effective on the date new OpSpecs incorporating its operating parameters are issued.

Craig Kenkel Acting General Superintendent Golden Gate National Recreation Area and Muir Woods National Monument National Park Service	Date	Erik Amend Regional Administrator (Acting) Western-Pacific Region Federal Aviation Administration	Date
Paul DePrey Superintendent San Francisco Maritime National Historical Park National Park Service	Date	Kevin Welsh Executive Director Office of Environment & Energy Federal Aviation Administration	Date
Anne Altman Acting Superintendent Point Reyes National Seashore National Park Service	Date		
Frank W. Lands Regional Director Interior Regions 8, 9, 10 & 12 National Park Service	Date		
Raymond M. Sauvajot Associate Director Natural Resource Stewardship and Science Directorate National Park Service	Date		

APPENDIX A

1.0 COMMERCIAL AIR TOUR ALLOCATIONS

Table 1 provides allocations of the annual operations along with authorized aircraft type by operator. IOA previously issued for the Parks terminates on the effective date of this ATMP.

Table 1. Air Tour Operations and Aircraft Type by Operator

Air Tour Operator	Annual Operations	Daily Operations	Aircraft Type
San Francisco Helicopters, LLC	For routes that fly over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: 1,280	No set limit	BHT-407-407, BHT-427-427
San Francisco Seaplane Tours, Inc.	For routes that fly over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: 1,125 For the route that flies over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore: 143	Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: No set limit Point Reyes National Seashore: 1 tour per day on Standard Days, with 5 Flex Days per year on which 2 tours per day may be conducted.	DHC-2-MKI

2.0 DAY/TIME RESTRICTIONS

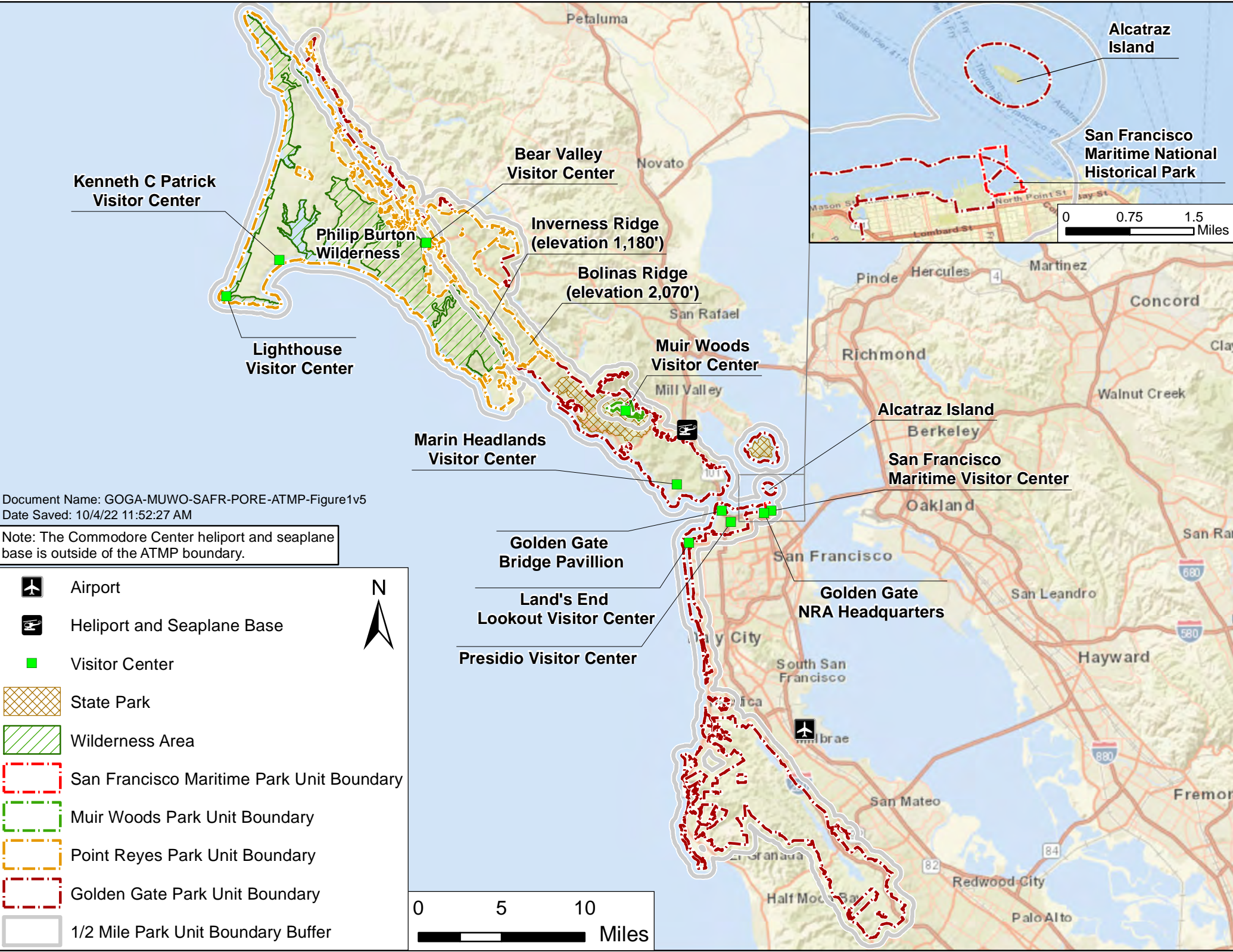
Table 2 lists the time-of-day and day-of-week operating parameters.

Table 2. Air Tour Time-of-Day and Day-of-Week Restrictions by Operator

Air Tour Operator	Time-of-Day	Day-of-Week
San Francisco Helicopters, LLC	Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: Tours may operate from 9:00 AM until 30 minutes after sunset.	The NPS can establish temporary no-fly periods that applies to air tours for special events or planned park management.
San Francisco Seaplane Tours, Inc.	Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: Tours may operate from 9:00 AM until 30 minutes after sunset. Point Reyes National Seashore: 12:00 PM to 5:00 PM	The NPS can establish temporary no-fly periods that applies to air tours for special events or planned park management.

APPENDIX B

Enlarged Figure 1



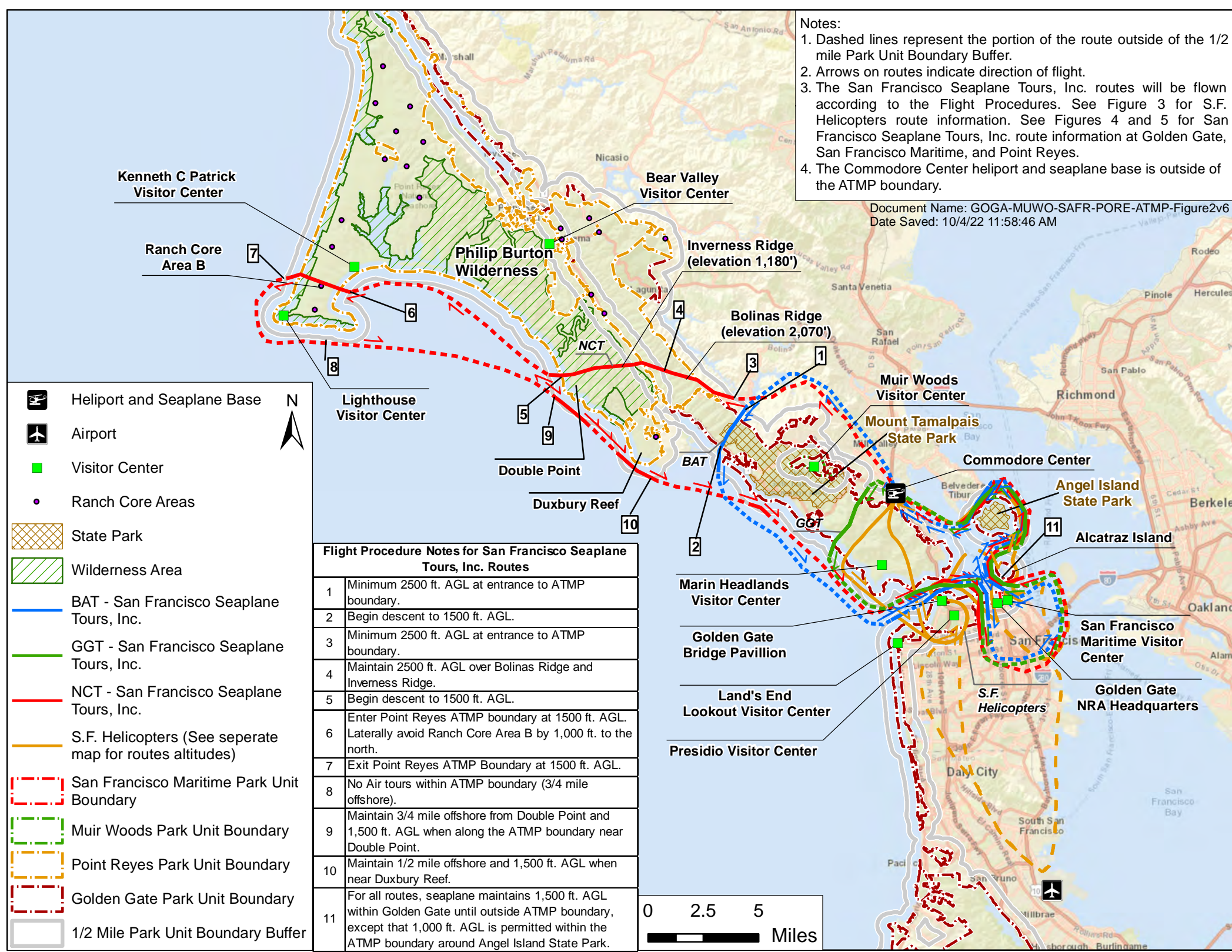
APPENDIX C

Enlarged Figures 2-5

Notes:

1. Dashed lines represent the portion of the route outside of the 1/2 mile Park Unit Boundary Buffer.
2. Arrows on routes indicate direction of flight.
3. The San Francisco Seaplane Tours, Inc. routes will be flown according to the Flight Procedures. See Figure 3 for S.F. Helicopters route information. See Figures 4 and 5 for San Francisco Seaplane Tours, Inc. route information at Golden Gate, San Francisco Maritime, and Point Reyes.
4. The Commodore Center heliport and seaplane base is outside of the ATMP boundary.

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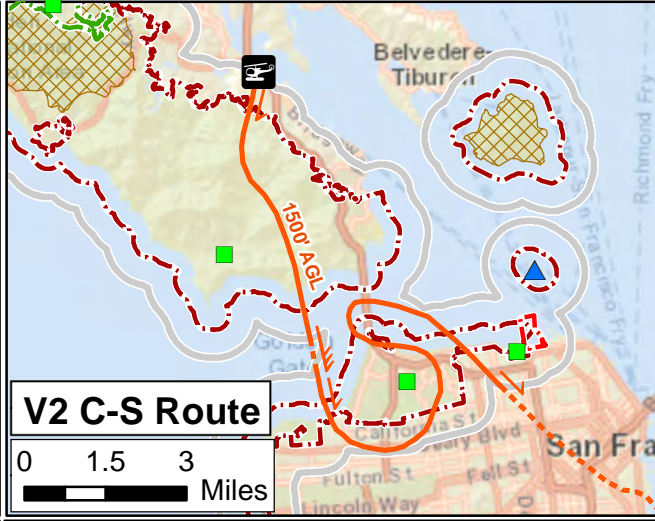
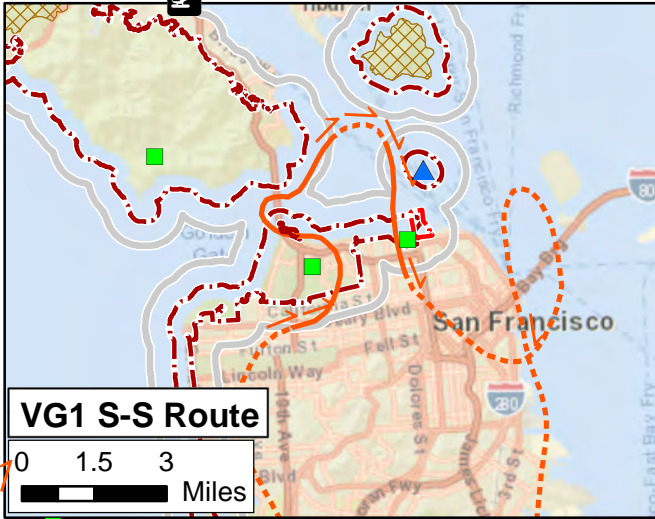
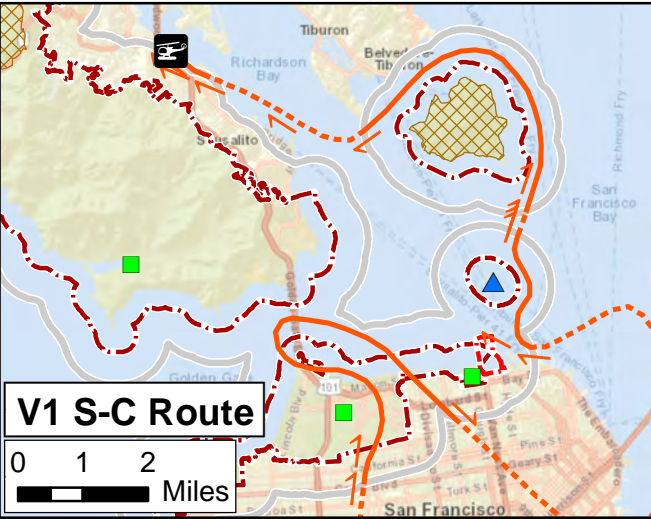
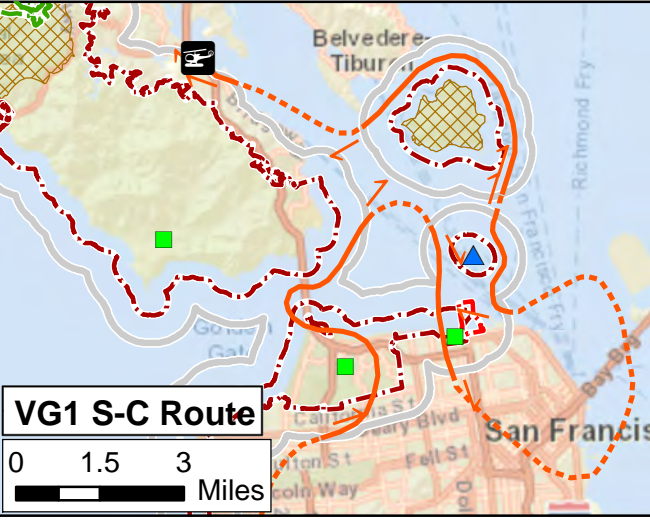
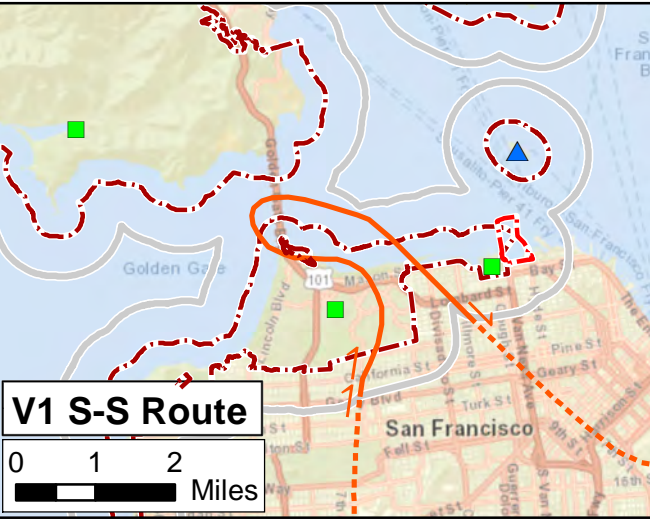
- Heliport and Seaplane Base
- Airport
- Visitor Center
- Ranch Core Areas

- State Park
- Wilderness Area
- BAT - San Francisco Seaplane Tours, Inc.
- GGT - San Francisco Seaplane Tours, Inc.
- NCT - San Francisco Seaplane Tours, Inc.
- S.F. Helicopters (See separate map for routes altitudes)
- San Francisco Maritime Park Unit Boundary
- Muir Woods Park Unit Boundary
- Point Reyes Park Unit Boundary
- Golden Gate Park Unit Boundary
- 1/2 Mile Park Unit Boundary Buffer

Flight Procedure Notes for San Francisco Seaplane Tours, Inc. Routes

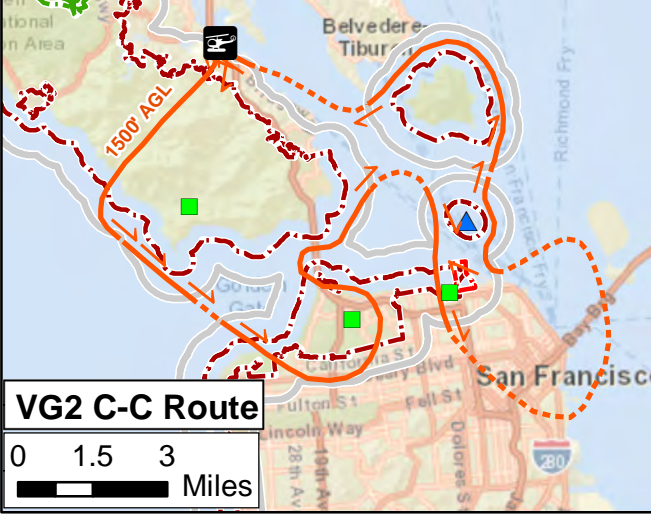
1	Minimum 2500 ft. AGL at entrance to ATMP boundary.
2	Begin descent to 1500 ft. AGL.
3	Minimum 2500 ft. AGL at entrance to ATMP boundary.
4	Maintain 2500 ft. AGL over Bolinas Ridge and Inverness Ridge.
5	Begin descent to 1500 ft. AGL.
6	Enter Point Reyes ATMP boundary at 1500 ft. AGL. Laterally avoid Ranch Core Area B by 1,000 ft. to the north.
7	Exit Point Reyes ATMP Boundary at 1500 ft. AGL.
8	No Air tours within ATMP boundary (3/4 mile offshore).
9	Maintain 3/4 mile offshore from Double Point and 1,500 ft. AGL when along the ATMP boundary near Double Point.
10	Maintain 1/2 mile offshore and 1,500 ft. AGL when near Duxbury Reef.
11	For all routes, seaplane maintains 1,500 ft. AGL within Golden Gate until outside ATMP boundary, except that 1,000 ft. AGL is permitted within the ATMP boundary around Angel Island State Park.





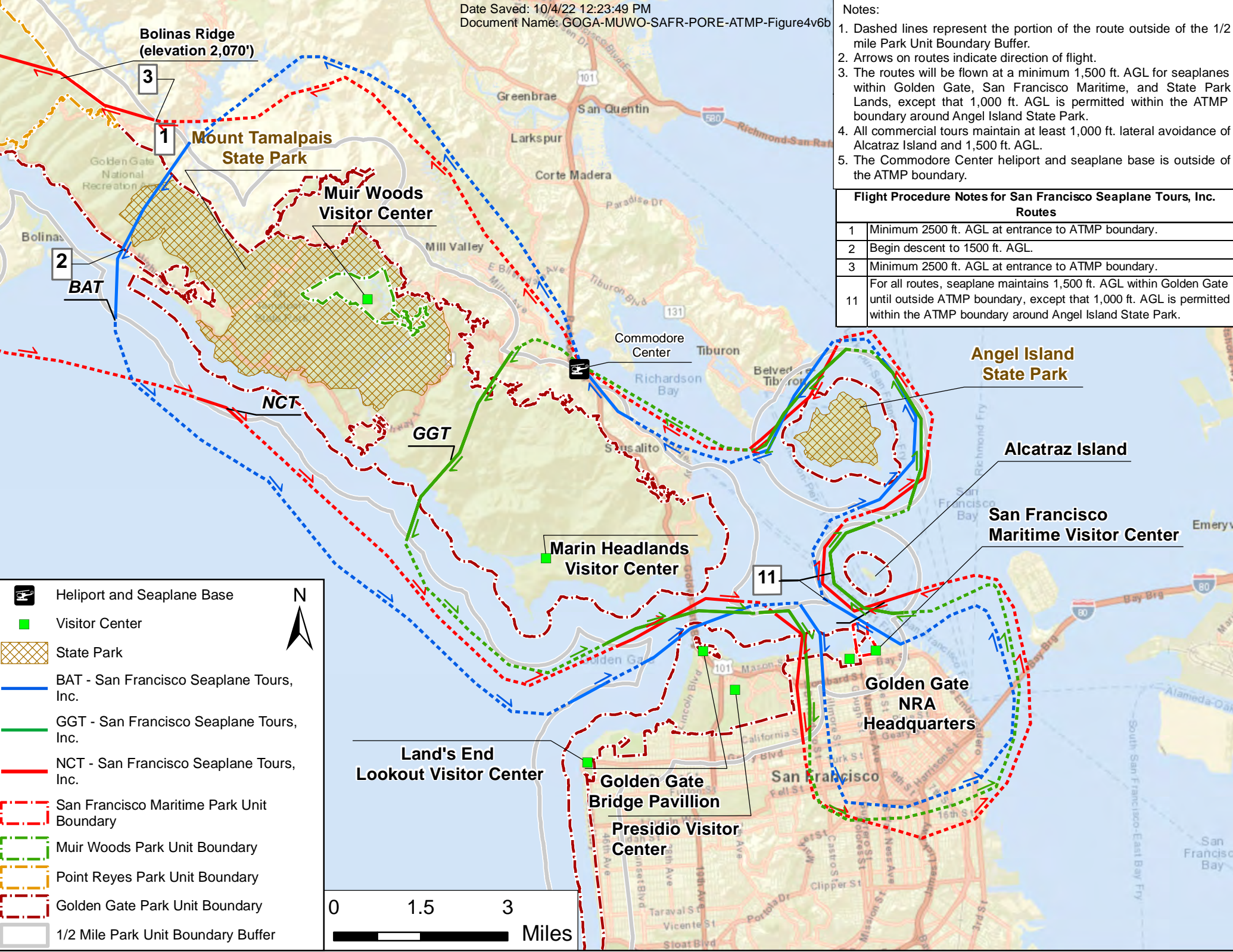
- Heliport and Seaplane Base
- Airport
- Visitor Center
- Alcatraz Island
- State Park
- S.F. Helicopters
- 1/2 Mile Park Unit Boundary Buffer
- San Francisco Maritime Park Unit Boundary
- Muir Woods Park Unit Boundary
- Point Reyes Park Unit Boundary


- Notes:
- Dashed lines represent the portion of the route outside of the 1/2 mile Park Unit Boundary Buffer.
 - Arrows on routes indicate direction of flight.
 - The routes will be flown at a minimum 1,000 ft. AGL within Golden Gate and San Francisco Maritime, except that a minimum 1,500 ft. AGL is required within the ATMP boundary around Alcatraz Island, and a minimum 1,500 ft. AGL while flying over park lands in Marin County.
 - All commercial tours maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL.
 - The Commodore Center heliport and seaplane base is outside of the ATMP boundary.





- Notes:
1. Dashed lines represent the portion of the route outside of the 1/2 mile Park Unit Boundary Buffer.
 2. Arrows on routes indicate direction of flight.
 3. The routes will be flown at a minimum 1,500 ft. AGL for seaplanes within Golden Gate, San Francisco Maritime, and State Park Lands, except that 1,000 ft. AGL is permitted within the ATMP boundary around Angel Island State Park.
 4. All commercial tours maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL.
 5. The Commodore Center heliport and seaplane base is outside of the ATMP boundary.


Flight Procedure Notes for San Francisco Seaplane Tours, Inc. Routes	
1	Minimum 2500 ft. AGL at entrance to ATMP boundary.
2	Begin descent to 1500 ft. AGL.
3	Minimum 2500 ft. AGL at entrance to ATMP boundary.
11	For all routes, seaplane maintains 1,500 ft. AGL within Golden Gate until outside ATMP boundary, except that 1,000 ft. AGL is permitted within the ATMP boundary around Angel Island State Park.





 Heliport and Seaplane Base


 Visitor Center


 State Park


 BAT - San Francisco Seaplane Tours, Inc.


 GGT - San Francisco Seaplane Tours, Inc.


 NCT - San Francisco Seaplane Tours, Inc.


 San Francisco Maritime Park Unit Boundary

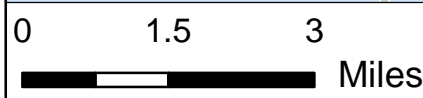
 Muir Woods Park Unit Boundary

 Point Reyes Park Unit Boundary

 Golden Gate Park Unit Boundary

 1/2 Mile Park Unit Boundary Buffer





Notes:

1. Dashed lines represent the portion of the route outside of the 1/2 mile Park Unit Boundary Buffer.
2. Arrows on routes indicate direction of flight.
3. The routes will be flown at a minimum AGL of 1,500 ft. for seaplanes over Golden Gate, San Francisco Maritime, and State park lands.

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Kenneth C Patrick
Visitor Center

Ranch Core
Area B

Bear Valley
Visitor Center

Phillip Burton
Wilderness

Pacific Ocean

Inverness Ridge
(elevation 1,180')

Bolinas Ridge
(elevation 2,070')

Lighthouse
Visitor Center

Flight Procedure Notes for San Francisco Seaplane Tours, Inc. Routes

1	Minimum 2500 ft. AGL at entrance to ATMP boundary.
2	Begin descent to 1500 ft. AGL.
3	Minimum 2500 ft. AGL at entrance to ATMP boundary.
4	Maintain 2500 ft. AGL over Bolinas Ridge and Inverness Ridge.
5	Begin descent to 1500 ft. AGL.
6	Enter Point Reyes ATMP boundary at 1500 ft. AGL. Laterally avoid Ranch Core Area B by 1,000 ft. to the north.
7	Exit Point Reyes ATMP Boundary at 1500 ft. AGL.
8	No Air tours within ATMP boundary (3/4 mile offshore).
9	Maintain 3/4 mile offshore from Double Point and 1,500 ft. AGL when along the ATMP boundary near Double Point.
10	Maintain 1/2 mile offshore and 1,500 ft. AGL when near Duxbury Reef.



Heliport and Seaplane Base



Visitor Center



Ranch Core Areas



State Park



Wilderness

NCT - San Francisco Seaplane Tours, Inc.

BAT - San Francisco Seaplane Tours, Inc.

Point Reyes Park Unit Boundary

Golden Gate Park Unit Boundary

1/2 Mile Park Unit Boundary Buffer

Double Point

NCT

Duxbury Reef

0 1 2 3 4 5
Miles

APPENDIX B

Environmental Screening Form



ENVIRONMENTAL SCREENING FORM (ESF)

PROJECT INFORMATION

Project Title: Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan

PEPC Project Number: 103175

Project Type: Categorical Exclusion

Project Location: San Francisco County and Marin County, California

PROJECT DESCRIPTION

The proposed action is to implement an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore. The “Project Description” section of the Categorical Exclusion (CE) Form for the ATMP sets out the elements of the ATMP and is incorporated herein by reference.

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. Though the ATMP covers four parks, this ESF analyzes the impacts to Golden Gate National Recreation Area (Park) from the implementation of the ATMP. The north district of Golden Gate National Recreation Area, which is managed by Point Reyes National Seashore under a Regional Directive for Management, is not included in the area analyzed in this ESF. Refer to the ESF for Point Reyes National Seashore for an analysis of impacts in that area.

RESOURCE IMPACTS TO CONSIDER

Definition of Effects or Impacts (40 C.F.R. § 1508.1(g))

Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct effects, indirect effects, and cumulative effects. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.

For the purposes of considering environmental impacts, the NPS evaluated the change to the human environment resulting from implementation of the ATMP. Consistent with Council on Environmental Quality regulations, the baseline from which to measure environmental impacts of the ATMP is the current condition of the human environment. In this case, the baseline is the current condition of Park resources and values, as impacted by 2,548 commercial air tours per year (existing three-year average of tours conducted on an annual basis from 2017-2019) along with other planned actions and trends. The baseline also includes the route and altitude information of

commercial air tours provided by the operators, as well as the timing and daily commercial air tour information from commercial air tour reports provided by the operators from 2017-2019.

Existing Conditions of Commercial Air Tours over the Park

Two commercial air tour operators, San Francisco Helicopters, LLC and San Francisco Seaplane Tours, Inc., hold Interim Operating Authority (IOA) to conduct a combined total of 5,090 commercial air tours over the Park, or within ½ mile of its boundary, each year. San Francisco Helicopters, LLC holds IOA for 2,900 commercial air tours over the Park each year, and San Francisco Seaplane Tours, Inc. holds IOA for 2,190 commercial air tours over the Park each year. Based on the three-year average of reporting data from 2017 to 2019, the operators conduct an average of 2,548 commercial air tours over the Park each year. San Francisco Helicopters, LLC conducts an average of 1,280 commercial air tours over the Park each year, and San Francisco Seaplane Tours, Inc. conducts an average of 1,268 commercial air tours over the Park each year. The operators conduct commercial air tours on 11 different routes over the Park. San Francisco Helicopters, LLC conducts commercial air tours on eight different routes using BHT-407-407 and BHT-427-427 aircraft (helicopter) at a minimum altitude of 1,000 – 1,500 feet (ft.) above ground level (AGL) depending on location over the Park. San Francisco Seaplane Tours, Inc. conducts commercial air tours on three different routes using DHC-2-MKI aircraft (fixed-wing) at a minimum altitude of approximately 1,000 – 2,500 ft. AGL depending on location over the Park. Commercial air tours are typically conducted between the hours of 9:00 AM and 6:00 PM and occur year-round. San Francisco Seaplane Tours, Inc. also offers a sunset tour.

Summary of the ATMP as Applied to the Park

The ATMP limits the number of commercial air tours that the operators are authorized to conduct per year over the Park to the three-year average of tours conducted on an annual basis from 2017-2019 (2,548 tours per year). The operators will be allowed to conduct commercial air tours on the existing routes that the operators currently report flying over the Park. The ATMP increases the minimum altitude that fixed-wing and helicopter aircraft must fly over portions of the Park, from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. Other than these portions of the Park and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Park (minimum 1,000 – 1,500 ft. AGL, depending on location over the Park for helicopter tours, and minimum 1,500 – 2,500 ft. AGL depending on location over the Park for fixed-wing tours except for near Angel Island where fixed-wing tours must fly at minimum 1,000 ft. AGL). All commercial air tour routes must maintain a 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. The routes described in the ATMP maintain these avoidance distances of currently known nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. All commercial air tours must also maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island. Except as provided by quiet technology incentives, the ATMP restricts the hours during which commercial air tours may be conducted over the Park, beginning at 9:00 AM until 30 minutes after sunset. The ATMP allows the NPS to establish no-fly periods for special events or planned park management. The ATMP requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Refer to the ATMP document for more information.

Evaluation of the ATMP

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis* below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that

the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Table 1. Potential Issues and Impacts to Resources

Resource	Potential Issues & Impacts
Air Air Quality	The findings from the screening analysis demonstrate that implementing the ATMP will not meaningfully impact (meaning that it will have no or minimal impact) local air quality and will not have regional impacts. See <i>Air Quality Technical Analysis</i> below.
Biological Species of Special Concern or Their Habitat	<p><u>Federally Listed Threatened and Endangered Species</u></p> <p>The Park has a number of Federally designated threatened and endangered species, including listed mammals, birds, amphibians, reptiles, plants, fish, and insects. Commercial air tours will have no impact on these species or their habitat due to the proposed commercial air tour routes, minimum altitudes, time of day restrictions, type of aircraft, and limit on the maximum number of flights per year that will be permitted under the ATMP. Based on these measures, the ATMP results in no impact on listed species, and after having informal discussions with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), the agencies determined the ATMP will have <i>No Effect</i> on listed species or their critical habitat. The condition that in certain locations the commercial air tours fly no lower than 1,500 ft. AGL over the Park is consistent with avoidance recommendations for northern spotted owls. Noise from a fixed fixed-wing aircraft at 1,500 ft. AGL (DHC- 2 Beaver floatplane, 70 decibels (dB) L_{max}) is below the sound-only injury threshold of 92 dB for northern spotted owls (USFWS, 2006; USFWS 2012).</p> <p>The Section 7 analysis conducted by the agencies considered the potential effects of the ATMP on listed species and/or designated critical habitat without the consequences to those listed species by the existing commercial air tours, in accordance with 50 CFR § 402.02. Refer to the Section 7 documentation for additional information, which includes the agencies’ analysis. The ATMP is expected to have no impacts or only beneficial impacts on listed species when compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, routes will remain the same as those currently flown, and altitudes will remain the same or increase when compared with existing operations.</p> <p><u>Special Status Species and Migratory Birds</u></p> <p>Marine mammals, including harbor seals (<i>Phoca vitulina</i>) are present within the Park.¹ While this species may be sensitive to noise, the ATMP sets the minimum altitude at 1,000 – 1,500 ft. AGL, depending on location over the Park for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Park for fixed-wing tours which is protective of these species. For all Park lands in Marin County, which is where marine mammal haul outs are located within the Park, the ATMP requires helicopter tours to maintain minimum 1,500 ft. AGL. In addition, the ATMP ensures operators maintain 1,000 ft. lateral avoidance of marine mammal haul outs. Therefore, it has been determined that the ATMP will result in negligible and only beneficial impacts</p>

¹ Marine mammals are protected under the Marine Mammal Protection Act.

	<p>to these species from current conditions and the agencies determined that the ATMP will have <i>No Effect</i> on marine mammals. Refer to the Section 7 documentation for additional information, which includes the agencies' analysis.</p> <p>Located on the Pacific Flyway, the Park supports a wide variety of native birds that are protected under the Migratory Bird Treaty Act. Many species of raptors that occur in the Park are especially sensitive to low flying aircraft and their associated noise. Nesting birds that are repeatedly disturbed by noise will abandon their nests. Additionally, raptors or other birds may collide with aircraft. Bald and golden eagles are occasionally observed migrating over or using Park lands but do not currently nest in the Park. Scientific and national level guidance recommends maintaining a buffer of 1,000 ft. for bald eagles (USFWS, 2007) and golden eagles during nesting to reduce noise impacts (Richardson & Miller, 1997). The route requirements in the ATMP also ensure operators maintain 1,000 ft. lateral avoidance of peregrine falcon nests. The ATMP authorizes the same number of flights on the same routes when compared to current conditions, and sets the minimum altitude for commercial air tours at 1,000 – 1,500 ft. AGL, depending on location over the Park for helicopter tours, and minimum 1,500 – 2,500 ft. AGL in most locations over the Park for fixed-wing tours. Therefore, the ATMP is expected to have limited to no impacts on these species when compared to current conditions.</p> <p>A number of other migratory birds including waterbirds, shorebirds² and other avian species use the Park. The route requirements in the ATMP ensures that operators maintain 1,000 ft. lateral avoidance of nesting waterbird colonies which is protective of these species. Information related to migratory birds are summarized more generally below under wildlife. Migratory birds will be exposed to noise at a similar or decreased level compared to what is currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and routes will remain the same. Therefore, the ATMP is expected to have negligible impacts on these species when compared to current conditions. In addition, because altitudes will increase on some route segments when compared with existing operations, any impacts from the ATMP are expected to only be beneficial for these species when compared to current conditions. It should be noted that when the altitude of an aircraft is increased, the total area exposed to the noise from that aircraft may also increase depending on the surrounding terrain. Although the area exposed to noise might increase, this would not meaningfully affect raptors or migratory birds because of the attenuation of the noise from higher altitude and transient nature of the impacts.</p> <p>The requirement to report bird strikes, detailed above, also will allow the agencies to assess the effectiveness of these protections, and to modify them in the event that unanticipated adverse impacts are observed.</p>
Biological Wildlife and/or Wildlife Habitat including terrestrial and aquatic species	<p>The Park and its surroundings are home to a wide variety of wildlife. The Park's coastal ecosystems support a rich assemblage of wildlife including 387 vertebrate species. Its grasslands, scrublands, wetlands, and forests also support a rich diversity of invertebrates. In total, the Park is home to nearly 53 species of mammals, 250 species of birds, 20 species of reptiles, and 11 species of amphibians.</p> <p>Noise from commercial air tours may impact wildlife in a number of ways: altered vocal behavior, breeding relocation, changes in vigilance and foraging behavior, and impacts</p>

² Migratory bird species are protected under the Migratory Bird Treaty Act.

	<p>on individual fitness and the structure of ecological communities to name a few (Shannon et al., 2016; Kunc et al., 2016; Kunc & Schmidt, 2019). Understanding the relationships between commercial air tour noise attributes (e.g., timing, intensity, duration, and location) and ecosystem responses is essential for understanding impacts to these species and developing management actions to address them (Gutzwiller et al., 2017).</p> <p>The ATMP limits the maximum number of commercial air tours that may be conducted over the Park to 2,548 flights, which is consistent with the existing three-year average of operations. Since the ATMP authorizes a maximum number of commercial air tours per year equivalent to the three-year average from 2017-2019 on the same routes currently used, it is anticipated that there will be little to no change to existing operating conditions and the resultant disturbances to wildlife. Furthermore, the ATMP requires the operators to continue to fly on the existing designated routes at the same or increased altitudes that are flown under existing operations (minimum 1,000 – 1,500 ft. AGL, depending on location over the Park for helicopter tours, and minimum 1,500 – 2,500 ft. AGL depending on location over the Park for fixed-wing tours with the exception of 1,000 ft. AGL near Angel Island). This limits noise exposure to wildlife in the Park and will result in a beneficial impact compared to current conditions. It should be noted that when the altitude of an aircraft is increased, the total area exposed to the noise from that aircraft may also increase depending on the surrounding terrain. Although the area exposed to noise might increase, this would not meaningfully impact wildlife because of the attenuation of the noise from higher altitude and transient nature of the impacts. Many species of wildlife move, making daily maximum exposure less likely.</p> <p>Sunrise is an important time of the day for wildlife, including many species of present within the Park. Biologically important behaviors for many species occur during this time, such as the dawn chorus for songbirds, foraging, and communication. The day/time restrictions and quiet technology incentives included in the ATMP provide protection to wildlife that are active during sunrise, which represents an improvement to current conditions. In the event that operators request and are authorized to use the quiet technology incentive, those tours would result in the possibility of noise beginning one hour after sunrise. The impacts from these flights would be less than the noise modeled in the <i>Noise Technical Analysis</i> but could be more than when there are no flights during this time of day.</p> <p>In conclusion, while wildlife will continue to be exposed to noise, effects are expected to be insignificant and will not be widespread throughout the Park. Any disturbances will likely be temporary in nature and infrequent on both a daily and annual basis. Noise from commercial air tours will be experienced by only those wildlife under or near the designated routes, leaving most wildlife in the Park unaffected. The level of noise exposure will be similar or decrease compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the same routes will be used. Therefore, impacts to wildlife are negligible and not significant, and because altitudes will increase along certain route segments when compared to existing flight operations, impacts from the ATMP are expected to be only beneficial for these species when compared to current conditions. See also the discussion above for special status species.</p>
Coastal	<p>Portions of the planning area for the ATMP overlap with designated coastal zone areas. The agencies analyzed the ATMP's consistency with the provisions of the California Coastal Act and found the ATMP to be consistent to the maximum extent practicable</p>

Coastal Resources and Coastal Zones	with the enforceable provisions of the California Coastal Act. The California Coastal Commission concurred with this determination on November 17, 2022. The agencies also analyzed the ATMP's consistency with the enforceable provisions of the McAteer-Petris Act and the policies set forth in the San Francisco Bay Plan, and have found the ATMP to be consistent to the maximum extent practicable with them. The San Francisco Bay Conservation and Development Commission is presumed to concur with the agencies' determination. Refer to the coastal zone consistency review documentation for more information.
Cultural Cultural Landscapes	<p>The NPS defines a Cultural Landscape as: a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general kinds of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (NPS, 2002).</p> <p>An impact to a cultural landscape will occur if the project alters any of the characteristics that help make the cultural landscape eligible for listing in the National Register of Historic Places (NRHP). This includes any diminishment of the cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. The potential impacts to cultural landscapes from the ATMP are limited to the continuation of visual and audible elements that diminish the integrity of the landscape setting and/or feeling.</p> <p>The Fort Mason Historic District, Alcatraz Island, Sutro Historic District, Fort Baker, Ranch M (Golden Gate Dairy), Point Bonita, U.S. Coast Guard Fort Point Station, and Ranch A/B (Miwok Stables) are historic properties within the Area of Potential Effects that have been identified and evaluated within the context of cultural landscapes and are considered eligible for listing on the NRHP. The number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the same routes will be used. The <i>Noise Technical Analysis</i>³ shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than 20 minutes a day (see Figure 2 in the <i>Noise Technical Analysis</i>). Therefore, impacts to cultural landscapes will be similar or decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019.</p> <p>The Federal Aviation Administration (FAA), in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including cultural landscapes as part of Section 106 consultation. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding. See CE Form for further information.</p>
Cultural Ethnographic Resources	The NPS defines Ethnographic Resources as: a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS,

³ See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

	<p>2002). Ethnographic resources include Traditional Cultural Properties (TCPs) (NPS, 1992).</p> <p>An impact to an Ethnographic Resource will occur if the project affects those elements of the resources that make it significant to the group traditionally associated with the resource, or if the project interferes with the use of the resource by the associated groups.</p> <p>The Federated Indians of Graton Rancheria, California, attach religious or cultural significance to areas within and adjacent to Golden Gate National Recreation Area. The Tribe informed Park staff that there are TCPs within the Park that are significant to the Tribe. The ATMP includes provisions that allow for the establishment of no-fly periods. These no-fly periods may be established to avoid conflicts or impacts to tribal ceremonies or similar activities, therefore no impacts on ethnographic resources are anticipated. Sacred ceremonies or other tribal activities which occur without notice to the NPS may be interrupted by noise, however, commercial air tours have no effect on tribal access.</p> <p>The FAA, in coordination with the NPS, consulted with the Federated Indians of Graton Rancheria, California on the potential impacts of the ATMP on Ethnographic Resources, through compliance with Section 106 of the National Historic Preservation Act. That consultation led to a finding that the ATMP will have no adverse effect on historic properties, which includes Ethnographic Resources. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Cultural Prehistoric/historic structures	<p>Cultural resources within the Park include a number of archaeological sites and historic structures. As noted above, impacts to these resources will occur if the ATMP alters the characteristics of an archaeological site or historic structure that make it eligible for NRHP listing. Commercial air tours, by their nature, have the potential to impact resources for which only feeling and setting are the contributing elements. Feeling and setting have been identified as contributing elements for 82 cultural resources in the Area of Potential Effects for the Park. Refer to the Section 106 documentation for a complete list.</p> <p>Commercial air tours will result in the continuation of visual and audible elements that are inconsistent with the feeling and setting for these resources. These intrusions will be limited to a maximum of 2,548 instances per year, and of limited duration. The <i>Noise Technical Analysis</i>⁴ shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than 20 minutes a day. These impacts will be similar to or decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 using the same routes. Therefore, the ATMP is expected to have negligible or only beneficial impacts on cultural resources when compared to current conditions.</p> <p>The FAA, in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribe, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including Cultural; prehistoric/historic structures. That consultation process led to a finding that the ATMP will have no</p>

⁴ See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

	adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.
Lightscapes Lightscapes	Under the ATMP, unless they qualify for the quiet technology incentive, commercial air tours are not permitted before 9:00 AM or 30 minutes after sunset. Any lights from commercial air tour aircraft are not likely to be noticeable and any impacts will be similar to or decrease compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 using the same routes. Therefore, impacts to lightscapes will not be significant.
Other Human Health and Safety	Commercial air tours are subject to the FAA regulations for protecting individuals and property on the ground, and preventing collisions between aircraft, land or water vehicles, and airborne objects. The operators must continue to meet the FAA safety regulations.
Other National Natural Landmarks	The Park contains one National Natural Landmark (NNL), Audubon Canyon Ranch. The ATMP authorizes the same number of commercial air tours per year as the average number of flights from 2017-2019 and requires the operators to continue to fly on the existing designated routes that the operators report flying over the Park. Therefore, no changes in impacts to NNLs are anticipated from the ATMP.
Socioeconomic Minority and low-income populations, size, migration patterns, etc.	U.S. Census data (United States Census Bureau, 2021) for census blocks surrounding the Park was reviewed to determine the presence of minority or low-income populations immediately outside and within ½-mile of the Park boundary. Based on this review, minority populations were identified in San Francisco County. However, commercial air tours will not have a disproportionate impact on low-income or minority populations, since the noise associated with commercial air tours will occur in areas directly beneath and adjacent to the routes over the Park and will not be concentrated over low-income or minority populations. The <i>Noise Technical Analysis</i> ⁵ shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than 20 minutes a day. Therefore, the ATMP will not have a disproportionate impact on low-income or minority populations.
Socioeconomic Socioeconomic	Commercial air tours generate income for operators and potentially generate income for other ancillary visitor industry businesses. Visitors from outside the immediate area contribute to this income. Because the number of commercial air tours authorized under the ATMP is the same as the average number of flights from 2017-2019, the Park does not expect visitor spending on commercial air tours or economic activity in the local communities to change. The competitive bidding process may redistribute the number of flights and income between individual operators in the future but is not anticipated to affect the overall average number of flights or local business activity generated by these flights.
Soundscapes Acoustic Environment	Baseline acoustic conditions in the Park were measured in 2007-2008 (Lee & MacDonald, 2011). At the locations nearest commercial air tour routes, the existing ambient daytime sound level was reported to be 40-55 decibels, while the natural ambient daytime sound level was reported to be 30-55 decibels. The existing ambient condition includes all sound associated with a given environment, i.e., natural, human, and mechanical sounds, such as automobiles and aircraft. Aircraft sound measured at a sampling location may include general aviation, commercial jets, military, and air tours. The natural ambient is the sound conditions found in a study area, including all sounds of nature (i.e., wind, water, wildlife, etc.) and excluding all human and mechanical sounds. Both the existing and natural ambient conditions were considered in the resource impacts analysis.

⁵ See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

	<p>Depending on a receiver's location on the ground in relation to an aircraft flying overheard, aircraft sound can range from faint and infrequent to loud and intrusive. Impacts of aircraft noise range from masking quieter sounds of nature such as bird vocalizations to noise loud enough to interrupt conversational speech between visitors. To capture how noise may affect quieter natural sounds or conversations, the <i>Noise Technical Analysis</i> examines the time above 35 decibels (for quieter natural sounds and impacts to natural resources) and time above 52 decibels for conversational speech disturbance and impacts to visitor experience.</p> <p>Overall, noise impacts associated with commercial air tours over the Park are not expected to measurably change, since the ATMP authorizes the same number of flights per year as the average number of flights from 2017-2019 using the same routes and requires commercial air tours to maintain the same or increased altitudes flown under existing operations.</p> <p>For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under the National Environmental Policy Act (NEPA), the FAA noise evaluation is based on Yearly⁶ Day Night Average Sound Level (DNL); the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for NEPA. Refer to the <i>Noise Technical Analysis</i> below.</p>
Viewsheds Viewsheds	<p>While studies indicate that aircraft noise in national parks can impact human perceptions of aesthetic quality of viewsheds (Weinzimmer et al. 2014, Benfield et al. 2018), because the level of commercial air tour activity under the ATMP will remain the same, there will be no change in the effect to visitors in this regard. Other literature for studies on impacts from commercial air tours or overflights generally on viewsheds conclude that the visual impacts of overflights are difficult to identify because visitors primarily notice aircraft because of the accompanying noise. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights (along with the position in the scene as viewed from most locations) make it unlikely the typical visitor will notice or be visually distracted by aircraft. The viewer's eye is often drawn to the horizon to take in a park view and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography.</p> <p>Under existing operations, commercial air tours over the Park are flown on 11 different routes. The ATMP limits the number of commercial air tours per year to 2,548 tours and maintains the same routes as are currently flown under existing operations. Therefore, impacts to viewsheds will be similar to or decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and routes will remain the same as compared to existing operations. They would therefore not be considered significant, and because altitudes will increase along certain route segments when compared to</p>

⁶ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low operational levels per year and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

	existing flight operations, and therefore visitors are less likely to notice them, any impacts from the ATMP are expected to result in only beneficial impacts to viewsheds compared to current conditions.
Visitor Use and Experience Recreation Resources	<p>Commercial air tours offer a recreational experience for those who wish to view the Park from a different vantage point. Because the number of commercial air tours under the ATMP is consistent with the average number of flights from 2017-2019, there are no or minimal changes anticipated to the number of commercial air tours offered per year compared to current operations.</p> <p>Currently, customers on commercial air tours are not required to pay an entrance fee at the Park, nor are the commercial air tour operators required to pay a fee to the Park.</p>
Visitor Use and Experience Visitor Use and Experience	<p>The NPS allows visitor uses that are appropriate to the purpose for which the Park was established and can be sustained without causing unacceptable impacts to Park resources or values. Unacceptable impacts are impacts that, individually or cumulatively, will unreasonably interfere with Park programs or activities including interpretive programs, or the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the Park (NPS, 2006).</p> <p>Effects of commercial air tours on Park visitor experience have been well documented over many years. See <i>Report on the Effects of Aircraft Overflights on the National Park System</i> (Department of Interior/NPS, July 1995). The primary effect of commercial air tours is the introduction of noise into the acoustic environment. Numerous studies have identified the value and importance of soundscapes as one of the motivations for visiting parks (Haas & Wakefield, 1998; McDonald et al., 1995; Merchan et al., 2014; Miller et al., 2018), including in a cross-cultural context (Miller et al., 2018). Other studies have focused specifically on the effects of aircraft on the visitor experience both in parks and protected areas, and a laboratory setting, indicating that aircraft noise negatively impacts the visitor experience (Anderson et al., 2011; Ferguson, 2018; Mace et al., 2013; Rapoza et al., 2015).</p> <p>Currently, some Park visitors may hear noise from commercial air tours, which may disrupt visitors or degrade the visitor experience at the Park by disturbing verbal communications and masking the sounds of nature. For example, noise from commercial air tours may disrupt visitors during interpretive and educational programs at historical sites or while hiking, camping, fishing, or participating in other activities. Visitors respond differently to noise from commercial air tour overflights – noise may be more acceptable to some visitors than others. Visitors in backcountry and wilderness areas often find commercial air tours more intrusive than visitors in developed and frontcountry areas where noise from commercial air tours may not be as audible (Rapoza et al., 2015; Anderson et al. 2011).</p> <p>Visitor points of interest include campgrounds, coastal areas, visitor centers, and trails. Ranger-led education and interpretative programs occur across the Park. Noise disturbances to visitors from commercial air tours are not expected to measurably change under the ATMP because the ATMP authorizes the same number of commercial air tours as the average number of flights from 2017-2019 using the same routes and requires commercial air tours to fly at the same or increased altitudes reported by the operators,</p>

	<p>depending on location over the Park. The <i>Noise Technical Analysis</i>⁷ shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than 20 minutes a day. It should be noted that when the altitude of an aircraft is increased, the total area exposed to the noise from that aircraft may also increase depending on the surrounding terrain. Although the area, and therefore number of visitors, exposed to noise might increase with higher altitudes, this would not meaningfully affect visitor experience because of the attenuation of sound from the higher altitude and transient nature of the impacts. Finally, limiting the operation of commercial air tours from 9:00 AM until 30 minutes after sunset, or beginning one hour after sunrise for operators that have converted to quiet technology aircraft and have been authorized by the agencies, provides times when visitors seeking solitude may explore the Park without disruptions from commercial air tours. Collectively, these changes from existing operations and their effect on the current condition of visitor experience will result in beneficial impacts to the visitor experience at the Park.</p>
Wilderness Wilderness	<p>There is no wilderness located within the Park. Therefore, no impacts to Park wilderness will occur as a result of the ATMP.</p>
Cumulative Effects	<p>The cumulative impact analysis for the ATMP focuses on noise and viewshed impacts. Impacts to other resources, i.e., wildlife, visitor experience, ethnographic resources, wilderness, etc. all result from noise or viewshed impacts.</p> <p>Many activities may contribute noise to the Park's acoustic environment. Aviation activities such as commercial air tours above 5,000 ft. AGL, and overflights by high altitude jets or private aviation regardless of altitude are not subject to regulation under the National Parks Air Tour Management Act (NPATMA). All of these aviation activities may currently contribute noise to the project area. Private and commercial overflights associated with the nearby San Francisco International Airport are commonly flown over the Park. These flights may detract from the Park's viewshed as well.</p> <p>The Park's developed areas and roadways also contribute to ambient noise. Maintenance and other administrative activities may also contribute noise to the acoustic environment, but are generally temporary, irregular, and do not last more than a few hours. Intermittent construction activities may add noise to the Park's acoustic environment, though generally those occur in already developed areas where noise is generally more acceptable and expected.</p> <p>The agencies have qualitatively considered the cumulative impacts of commercial air tours along with impacts from existing activities generally described above. Depending on the level of Park activities at various times of the year, the noise contribution from other sources such as road traffic and visitor use in developed areas may be substantial. There is no known future project that would significantly contribute noise impacts to the project area. Considering existing ambient noise sources and foreseeably future noise sources, the commercial air tour noise is a small contribution of overall noise. Furthermore, the ATMP establishes operating conditions to protect Park natural and cultural resources, and it is unlikely it would measurably change the overall acoustic environment. Commercial air tours over Park roadways are likely to be masked by existing noise and therefore the impacts would be de minimis. Finally, the ATMP does not add new noise to the existing acoustic environment. Therefore, when considering</p>

⁷ See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

	<p>other sources of noise in the Park that are likely to continue under the ATMP, the continuation of 2,548 commercial air tours will not result in a meaningful change to the current condition of the Park's visual or auditory landscape.</p> <p>As noted above under viewsheds, visual or viewshed impacts associated with aircraft are most noticeable because of noise. As described above, the ATMP will not result in significant impacts to the acoustic environment. Additionally, there should not be significant cumulative changes to the viewshed since the number of commercial air tours is not increasing but is consistent with the 3-year average.</p> <p>Therefore, no significant cumulative environmental impacts are likely to result from the ATMP.</p>
Indirect Effects	<p>The ATMP applies to all commercial air tours over the Park, San Francisco Maritime National Historical Park, Muir Woods National Monument⁸, and Point Reyes National Seashore, or within ½ mile outside these Parks' boundaries, that are flown below 5,000 ft. AGL. These flights takeoff and land from the San Francisco International Airport and the Commodore Center heliport in Sausalito, CA which are outside of the area regulated by the ATMP. Land uses between the airports and the Park's ½-mile boundary buffer primarily include heavily developed commercial and residential areas within the greater San Francisco metropolitan area, although some undeveloped areas associated with other protected areas of open space are also present. Commercial air tours traveling to and from the Park could result in some temporary noise disturbances in these areas. Commercial air tours may fly over residential areas resulting in temporary noise disturbance to homeowners. Undeveloped lands will likely experience similar impacts to those described in other sections of this ESF, i.e., temporary disturbances to wildlife, etc. although flight altitudes may be different outside the Park boundary resulting in potentially more adverse impacts than those occurring within the ATMP boundary. Because the number of flights authorized by the ATMP (no more than 2,548 tours per year) is consistent with existing conditions, these effects are expected to be insignificant.</p> <p>Since the ATMP authorizes the same number of commercial air tours per year as existing operations on the same routes, it is unlikely that the frequency and nature of these disturbances outside of the Park and its ½-mile buffer would result in a change from current condition. Therefore, the agencies consider indirect effects of the ATMP to be negligible. However, since the ATMP cannot regulate the flight path, altitude, duration, etc. of flights beyond ½-mile boundary of the four parks included in the ATMP (the operators must comply with relevant FAA regulations), the agencies are unable to require operators to continue to fly more than ½ mile outside parks' boundaries in the manner in which they currently fly under existing operations or to require operators to change any operational parameters (e.g., altitude or routes). However, the agencies are unaware of any reason the operator would deviate from their current flight paths outside the ATMP boundary since routes have not changed.</p>

⁸ The ATMP does not authorize any air tours over Muir Woods National Monument or its ½-mile boundary, which maintains the current level of air tour activity.

Additional Technical Analysis

AIR QUALITY TECHNICAL ANALYSIS

Potential air quality impacts from proposed commercial air tour operations were estimated using an emissions inventory approach. Annual flight miles by aircraft type were calculated for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (GOGA-SAFR-PORE) – 68,300 flight miles. The two aircraft that fly commercial air tours are the DHC-2 Beaver Floatplane (fixed-wing) and Bell 407 (helicopter). The potential impacts of commercial air tours were analyzed jointly across all three parks.

The FAA’s Aviation Environmental Design Tool (AEDT) version 3d was used to develop emission factors (pounds of emissions per mile flown) for these aircraft, which were derived from the Environmental Protection Agency’s (EPA) AP-42: Compilation of Emission Factors. Although the AP-42 emission factors represent the best available data, they have not been updated since the 1990s and most aircraft engines in use today are likely to be cleaner due to less-polluting fuels and improvements in engine emissions controls. Therefore, these emission rates are considered a conservative estimate of emission rates for aircraft used in commercial air tours.

The maximum emissions (tons per year) were calculated for GOGA-SAFR-PORE⁹ by multiplying the total number of operations (by aircraft type), the longest routes flown by each aircraft type over the parks and the ½ mile boundary outside of the parks, and the aircraft-specific emission factor. The sum of total emissions by aircraft type represent the maximum emissions conditions for the parks. To highlight the potential impacts to ambient air quality for all criteria pollutants, GOGA-SAFR-PORE emissions results were compared with the EPA’s General Conformity *de minimis* thresholds for the most stringent¹⁰ nonattainment areas. EPA’s General Conformity *de minimis* thresholds represent a surrogate for impacts to ambient air quality.

The NPS must also consider impacts to resources that are sensitive to air pollution under the NPS Organic Act mandates and the Clean Air Act (CAA). Such resources include (but are not limited to) sensitive vegetation, streams and lakes, aquatic biota and visibility. These resources are typically referred to as Air Quality Related Values (AQRVs). Parks designated Class I areas under the CAA also receive an additional measure of protection under the CAA provisions. The CAA gives the NPS an “affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a Class I area.”

Additionally, a portion of GOGA-SAFR-PORE and the ½ mile boundary outside GOGA-SAFR-PORE is classified as Marginal Nonattainment for ozone (2015 standard), Moderate Nonattainment for PM_{2.5} (2006 standard), and Moderate Maintenance for carbon monoxide (1971 standard) and is thus subject to the General Conformity regulations. However, since emissions estimates for all pollutants in across the three parks and the ½-mile boundary outside the parks are well below the most stringent *de minimis* levels (Table 2), a General Conformity Determination is not required. Furthermore, the most stringent *de minimis* emission thresholds for federal conformity determinations are sufficiently low relative to emission thresholds the NPS will use to determine whether additional air quality analysis is necessary under a NEPA analysis. Given this, and the fact that the maximum projected emissions from overflights in GOGA-SAFR-PORE are well below these *de minimis* levels (< 1 TPY for particulate matter and sulfur dioxide, and <2 TPY for nitrogen oxides – criteria pollutants that have the most significant impact on AQRVs), it is expected that emissions from overflights in GOGA-SAFR-PORE under the ATMP will not meaningfully impact AQRVs, or local air quality, and will not have regional impacts from implementation of the ATMP in GOGA-SAFR-PORE.

⁹ Muir Woods National Monument was not included in this analysis because the ATMP does not authorize any commercial air tours over that Park or its ½ mile boundary.

¹⁰ The most stringent non-attainment areas (i.e., lowest *de minimis* thresholds) are categorized as “extreme” for ozone (VOCs or NOx) and “serious” for particulate matter and sulfur dioxide.

Table 2. Comparison of the emissions inventory for proposed commercial air tours in GOGA-SAFR-PORE with *de minimis* thresholds for the most stringent nonattainment areas.

Pollutant	<i>de minimis</i> threshold (Tons per Year)	Emissions Inventory for GOGA-SAFR- PORE (Tons per Year)
Carbon Monoxide	100	0.221
Volatile Organic Compounds	10	0.008
Nitrogen Oxides	10	1.806
Particulate Matter, diam. < 2.5 µm	70	0.019
Particulate Matter, diam. < 10 µm	70	0.019
Lead	25	0.122
Sulfur Oxides	70	0.254
Carbon Dioxide	n/a	683.707

NOISE TECHNICAL ANALYSIS

Indicators of acoustic conditions

There are numerous ways to measure the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The metrics and acoustical terminology used for the ATMP are shown in Table 3.

Table 3. Primary metrics used for the noise analysis.

Metric	Relevance and citation
Time Above 35 dBA ¹¹	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (American National Standards Institute (ANSI), 2007); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (American National Standards Institute/Acoustical Society of America S12.60/Part 1-2010).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974).</p>

¹¹ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 µPa. The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.
Day-night average sound level, L_{dn} (or DNL)	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day, DNL takes into account the increased sensitivity to noise at night by including a 10 dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>For aviation noise analyses, the FAA (2015, Appendix. B, B-1) has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of DNL.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and L_{dn} characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for L_{dn}) <p>If there are no nighttime events, then $L_{Aeq, 12\text{ hr}}$ is arithmetically three dBA higher than L_{dn}.</p> <p>The FAA's (2015 Exhibit 4-1) indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.

ATMP as related to indicators

The potential impacts of commercial air tours were analyzed jointly across Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks). In order to provide a conservative evaluation of potential noise effects produced by commercial air tours under the ATMP, the CE analysis is based on a representation of a peak day¹² of commercial air tour activity. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity over the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

¹² As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at operational levels per year and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

Noise contours for the following acoustic indicators were developed using the FAA's AEDT version 3d and are shown below. A noise contour presents a graphical illustration or "footprint" of the area potentially affected by the noise.

- Time above 35 dBA (minutes) – see Figure 1
 - Note: The utility of this metric may be limited in urban environments such as certain areas of Golden Gate National Recreation Area and surrounding urban areas where the ambient sound level is generally greater than 45-50 dBA.
- Time above 52 dBA (minutes) – see Figure 2
- Equivalent sound level, $L_{Aeq, 12hr}$ – see Figure 3
 - Note: Contours are not presented for L_{dn} (or DNL) as it is arithmetically three dBA lower than $L_{Aeq, 12hr}$ if there are no nighttime events, which is the case for the ATMP modeled at Golden Gate National Recreation Area.
- Maximum sound level or L_{max} – see Figure 4

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis*. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

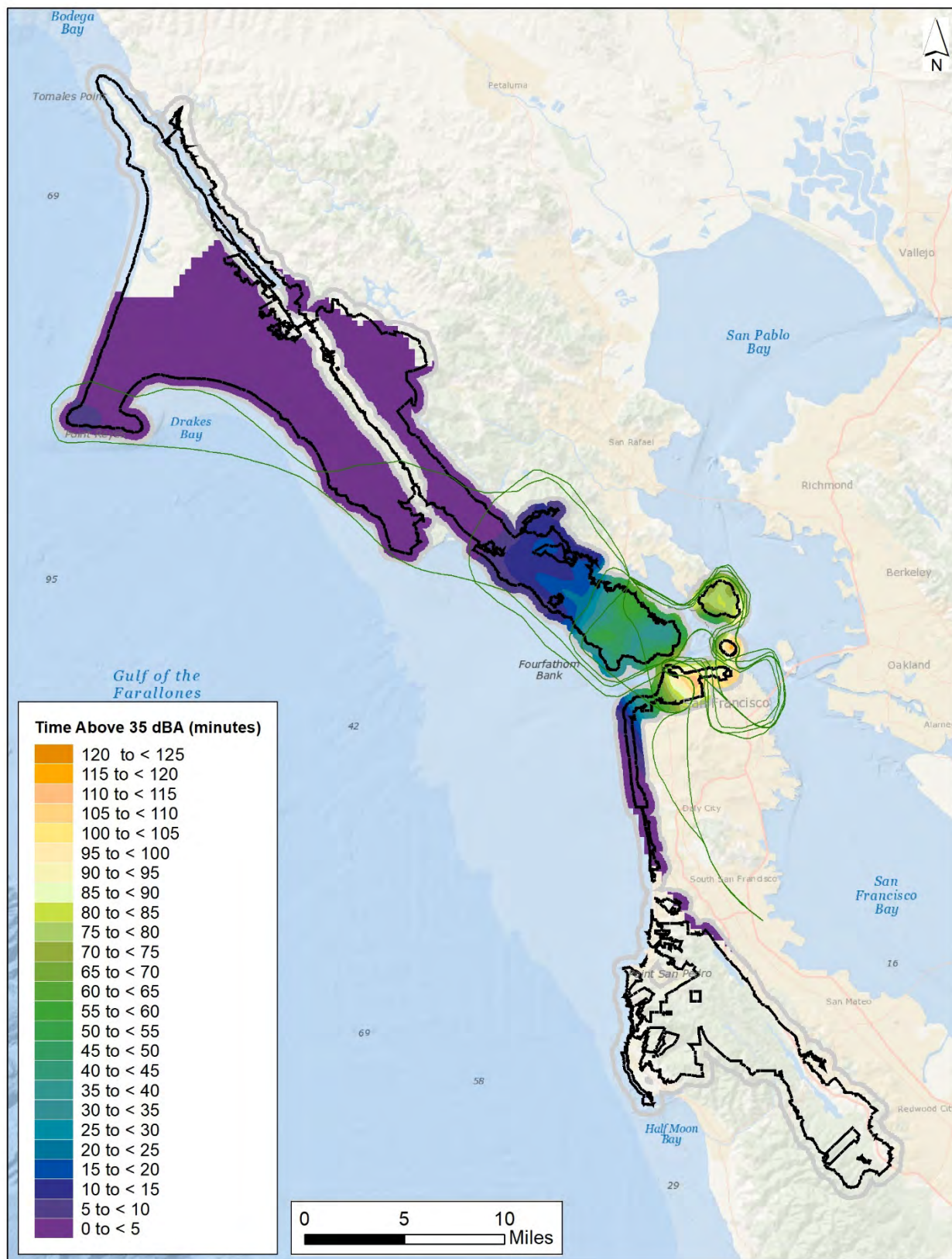


Figure 1. Noise contour results for Time Above 35 dBA

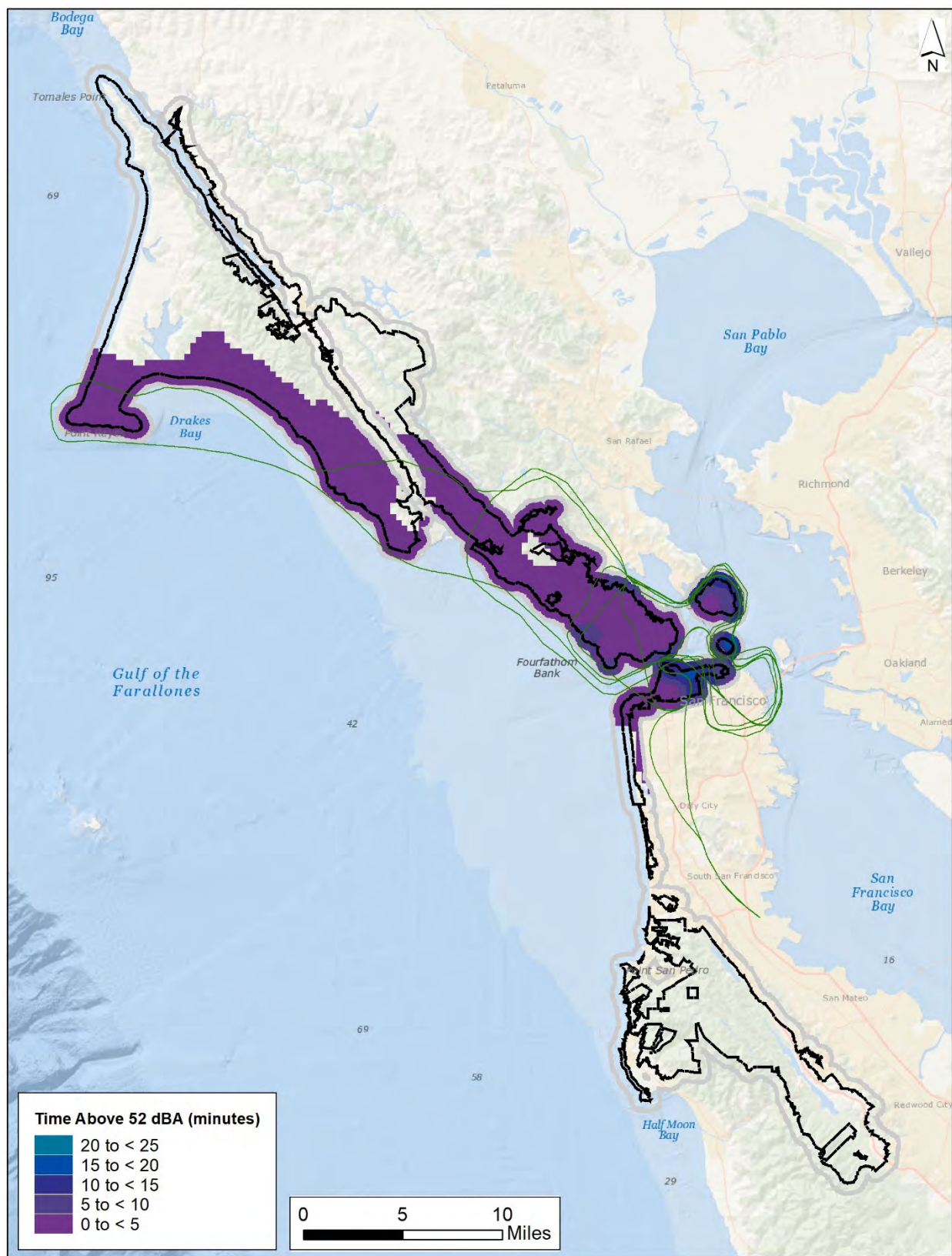


Figure 2. Noise contour results for Time Above 52 dBA

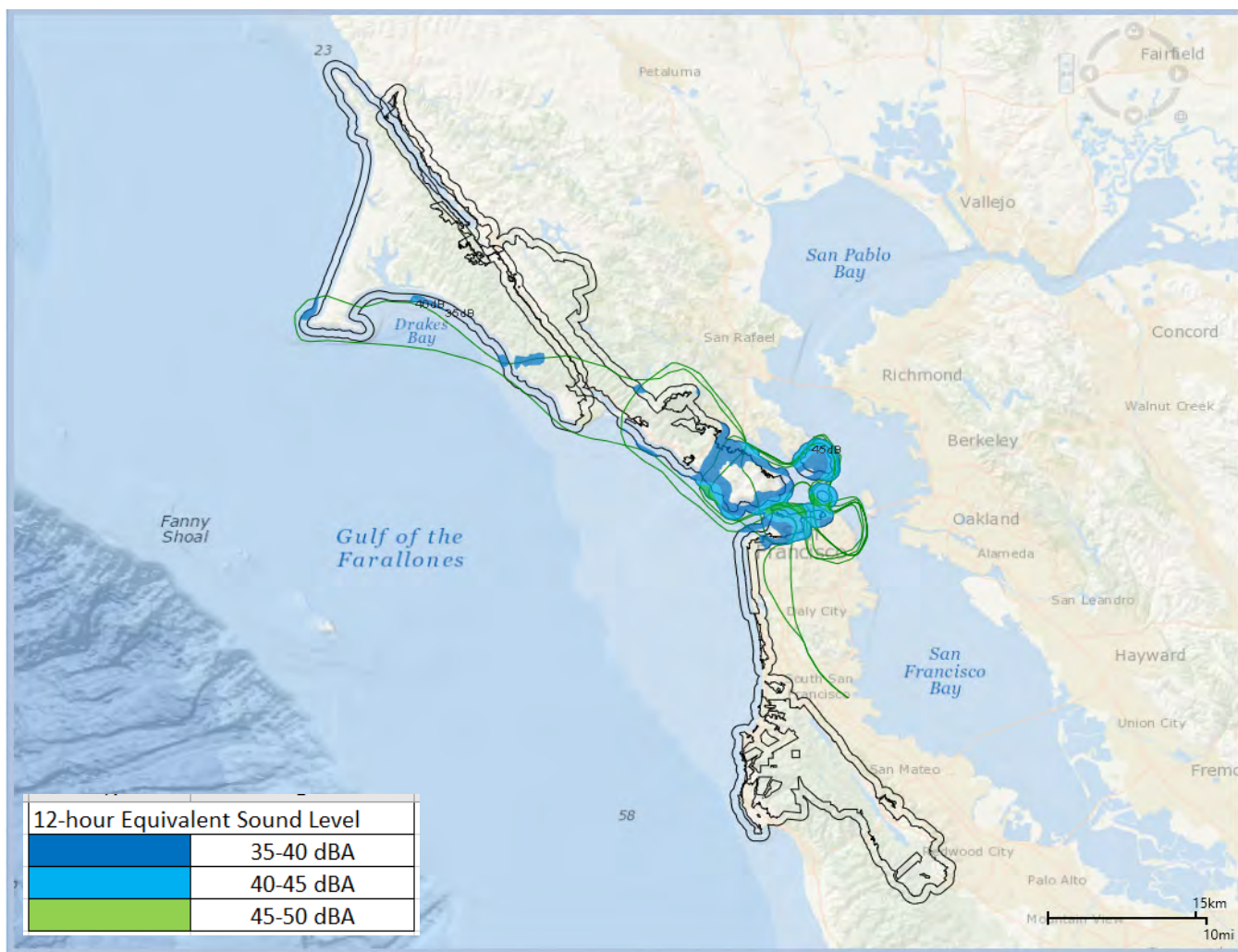


Figure 3. Noise contour results for $L_{Aeq, 12hr}$

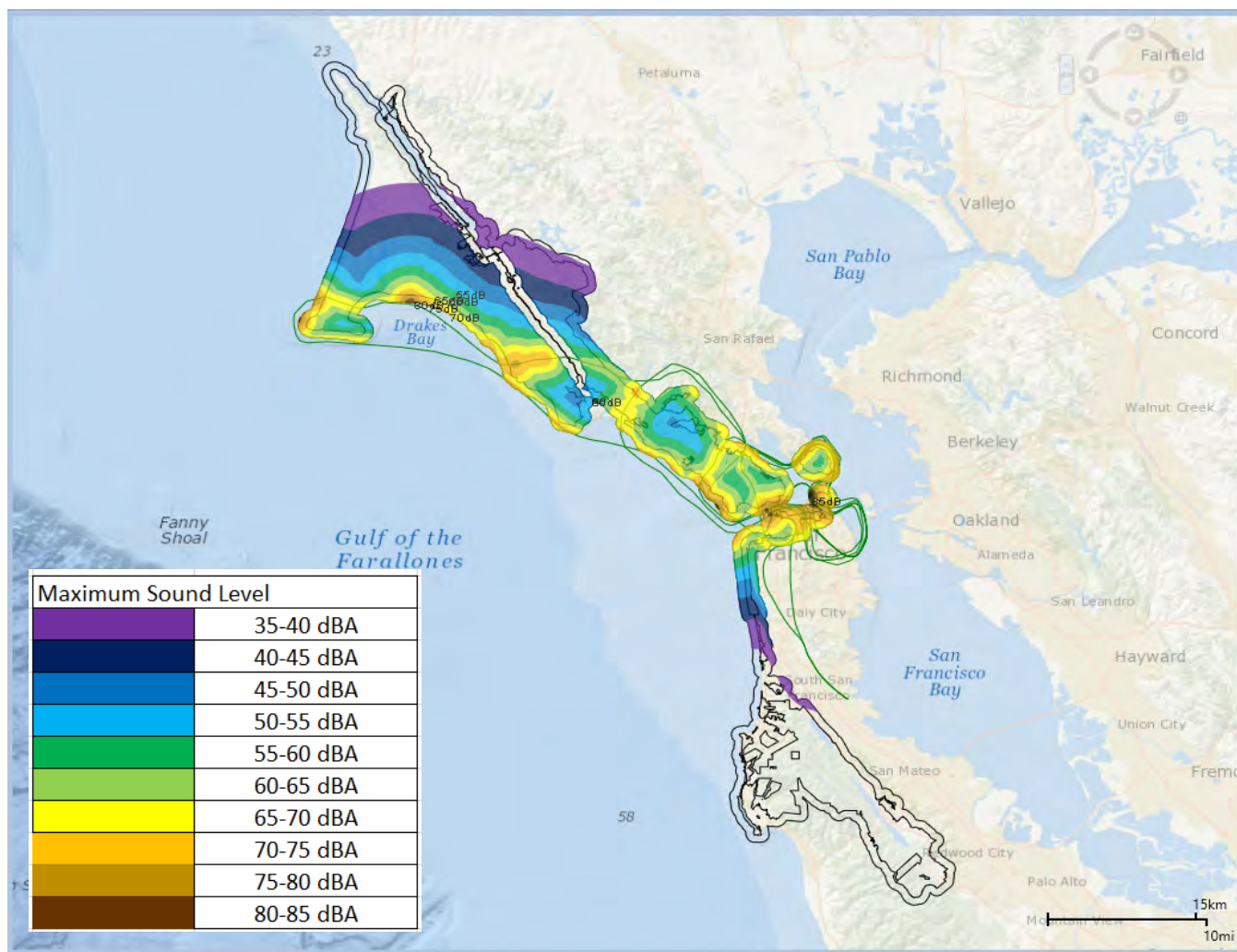


Figure 4. Noise contour results for L_{\max}

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ENVIRONMENTAL SCREENING FORM (ESF)

PROJECT INFORMATION

Project Title: Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan

PEPC Project Number: 103175

Project Type: Categorical Exclusion

Project Location: San Francisco County and Marin County, California

PROJECT DESCRIPTION

The proposed action is to implement an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore. The “Project Description” section of the Categorical Exclusion (CE) Form for the ATMP sets out the elements of the ATMP and is incorporated herein by reference.

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. Point Reyes National Seashore manages the north district of Golden Gate National Recreation Area under a Regional Directive for Management. Though the ATMP covers four parks, this ESF analyzes the impacts to Point Reyes National Seashore and the north district of Golden Gate National Recreation area (Park) from the implementation of the ATMP.

RESOURCE IMPACTS TO CONSIDER

Definition of Effects or Impacts (40 C.F.R. § 1508.1(g))

Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct effects, indirect effects, and cumulative effects. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.

For the purposes of considering environmental impacts, the NPS evaluated the change to the human environment resulting from implementation of the ATMP. Consistent with Council on Environmental Quality regulations, the baseline from which to measure environmental impacts of the ATMP is the current condition of the human environment. In this case, the baseline is the current condition of Park resources and values, as impacted by 143 commercial air tours per year (existing three-year average of tours conducted on an annual basis from 2017-2019) along with other planned actions and trends. The baseline also includes the route and altitude information of

commercial air tours provided by the operator, as well as the timing and daily commercial air tour information from commercial air tour reports provided by the operator from 2017-2019.

Existing Conditions of Commercial Air Tours over the Park

Two commercial air tour operators, San Francisco Helicopters, LLC and San Francisco Seaplane Tours, Inc., hold Interim Operating Authority (IOA) to conduct a combined total of 5,090 commercial air tours over the Park each year. However, San Francisco Helicopters, LLC has not reported flying commercial air tours over the Park from 2017 to 2019. Based on the three-year average of reporting data from 2017 to 2019, San Francisco Seaplane Tours, Inc. conducts an average of 143 total commercial air tours over the Park each year.

San Francisco Seaplane Tours, Inc. conducts commercial air tours on one route over the Park using DHC-2-MKI aircraft (fixed-wing). Commercial air tours are conducted at altitudes ranging between 1,500 feet and 2,500 feet (ft.) above ground level (AGL) depending on location over the Park. Commercial air tours are typically conducted between the hours of 12:00 PM and 5:00 PM. Tours occur year-round, with tours on an average of 137 days per year based on the three-year average. For the majority of those days, San Francisco Seaplane Tours, Inc. has reported flying just one flight, though multiple flights on a single day have occasionally been reported.

Summary of the ATMP as applied to the Park

The ATMP limits the number of commercial air tours that the operator is authorized to conduct per year over the Park to the existing three-year average of tours conducted on an annual basis from 2017-2019 (143 annual tours). The ATMP restricts the number of commercial air tours that San Francisco Seaplane Tours, Inc. may conduct per day over the Park (up to one tour per day on Standard Days, up to two tours per day on Flex Days, and no more than five Flex Days per year). San Francisco Seaplane Tours, Inc. will be allowed to conduct commercial air tours on substantially the same route that the operator reports flying over the Park, with a modification to the lateral offsets from Ranch Core Areas. The ATMP results in no change to the minimum altitude that commercial air tours may be conducted over the Park (minimum 1,500 ft. AGL, minimum 2,000 ft. AGL over land-based wilderness, and minimum 2,500 ft. AGL over Bolinas Ridge and Inverness Ridge). Except as provided for by quiet technology incentives, the ATMP restricts the hours during which commercial air tours may be conducted over the Park, from 12:00 PM to 5:00 PM. The ATMP allows the Park to establish no-fly periods for special events or planned Park management. The ATMP requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Refer to the ATMP document for more information.

Evaluation of the ATMP

Table 1. Potential Issues and Impacts to Resources

Resource	Potential Issues & Impacts
Agricultural Grazing and Ranching	Approximately 28,000 acres of NPS lands managed by the Park are currently under agricultural production, including livestock grazing and ranching operations. The route over the Park authorized by the ATMP includes a 1,000 ft. lateral offset to ranch core areas and 1,500 ft. AGL over these areas. Through the establishment of documented route and flight elevation requirements reflecting this offset, the level of noise exposure will be similar or decrease compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and the lateral offset will provide protection to ranch core areas. Therefore, agricultural impacts are not anticipated to occur as a result of the ATMP.
Air Air Quality	The findings from the screening analysis demonstrate that implementing the ATMP will not meaningfully impact (meaning that it will have no or minimal impact) local air quality and will not have regional impacts. See <i>Air Quality Technical Analysis</i> below.

<p>Biological Species of Special Concern or Their Habitat</p>	<p><u>Federally Listed Threatened and Endangered Species</u></p> <p>The Park has a number of Federally designated threatened and endangered species, including listed birds and fish. Commercial air tours will have no impact on these species or their habitat due to the proposed commercial air tour route, minimum altitudes, time of day restrictions, type of aircraft, and limit on the maximum number of flights per day and per year that will be permitted under the ATMP. In addition, the ATMP requires operator to maintain 1,000 ft. lateral avoidance of nesting shorebird colonies or marine mammal haul outs. The ATMP requires minimum 1,500 ft. AGL over most portions of the Park and ½ mile buffer, minimum 2,000 ft. AGL over land-based wilderness, and minimum 2,500 ft. AGL over Bolinas Ridge and Inverness Ridge. These altitudes are also identified as protective of nesting Northern Spotted Owl as well as wilderness resources. Based on these measures, the ATMP results in no impact on listed species, and after having informal discussions with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), the agencies determined the ATMP will have <i>No Effect</i> on listed species or their critical habitat.</p> <p>The Section 7 analysis conducted by the agencies considered the potential effects of the ATMP on listed species and/or designated critical habitat without the consequences to those listed species by the existing commercial air tours, in accordance with 50 CFR § 402.02. Refer to the Section 7 documentation for additional information, which includes the agencies' analysis. The ATMP is expected to have no impacts or only beneficial impacts on listed species when compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and the route will remain substantially the same as those currently flown under existing operations.</p> <p><u>Special Status Species and Migratory Birds</u></p> <p>Marine mammals, including harbor seals (<i>Phoca vitulina</i>) are present within the Park.¹ While these species may be sensitive to noise, the ATMP sets the minimum altitude at 1,500 ft. AGL for commercial air tours over the outer coastal lands and waters of the Park. Refer to the Section 7 documentation for additional information, which includes the agencies' analysis. In addition, the route requirements in the ATMP ensure operators maintain 1,000 ft. lateral avoidance of marine mammal haul outs which has been shown to be protective of these species. Therefore, it has been determined that the ATMP will result in negligible and only beneficial impacts to these species from current conditions and the agencies have determined that the ATMP will have <i>No Effect</i> on marine mammals.</p> <p>Bald eagles, golden eagles, and peregrine falcons are protected raptor species that are present in the Park.² These species are especially sensitive to low flying aircraft and their associated noise. Nesting eagles that are repeatedly disturbed by noise will abandon their nests. Additionally, raptors may collide with aircraft because of the altitude at which raptors fly. Scientific and national level guidance recommend aircraft standoff of 1,000 ft. for bald eagles (USFWS, 2007) and golden eagles to reduce noise impacts</p>
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¹ Marine mammals are protected under the Marine Mammal Protection Act.

² Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act. Peregrine falcons are protected under the Migratory Bird Treaty Act.

	<p>(Richardson and Miller, 1997). As raptors may be impacted by flights below 1,000 ft. AGL during nesting season and near communal roost sites based on the National Bald Eagle Management Guidelines, there will be beneficial impacts from maintaining the minimum altitude at 1,500-2,500 ft. AGL depending on location over the Park. The route requirements in the ATMP also ensure operators maintain a 1,000 ft. lateral avoidance of peregrine falcon nests which has been shown to be protective of these species. The ATMP authorizes the same number of flights on substantially the same route when compared to existing operations and maintains the same altitudes. Therefore, the ATMP is expected to have no impacts on these species when compared to current conditions. The requirement to report bird strikes, detailed above, also will allow the agencies to assess the effectiveness of these protections, and to modify them in the event that unanticipated adverse impacts are observed.</p> <p>A number of other migratory birds² and other avian species use the Park. The ATMP ensures operators maintain 1,000 ft. lateral avoidance (through route requirements) as well as at least 1,500 ft. vertical avoidance (through altitude restrictions) of nesting shorebird colonies which is protective of these species. Information related to migratory birds are summarized more generally below under wildlife. Migratory birds will be exposed to noise at a similar or decreased level compared to what is currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the route will remain substantially the same. Therefore, the ATMP is expected to have negligible or only beneficial impacts on these species when compared to current conditions.</p>
<p>Biological Wildlife and/or Wildlife Habitat including terrestrial and aquatic species</p>	<p>The Park and its surroundings are home to a wide variety of wildlife. The Park contains approximately 80 species of mammals, 85 species of fish, 29 species of reptiles and amphibians, and thousands of aquatic and terrestrial invertebrate species. Nearly half the bird species of North America, 490 species, have been seen within the Park.</p> <p>Noise from commercial air tours may impact wildlife in a number of ways: altered vocal behavior, breeding relocation, changes in vigilance and foraging behavior, and impacts on individual fitness and the structure of ecological communities to name a few (Shannon et al., 2015; Kunc et al., 2016; Kunc & Schmidt, 2019). Understanding the relationships between commercial air tour noise attributes (e.g., timing, intensity, duration, and location) and ecosystem responses is essential for understanding impacts to these species and developing management actions to address them (Gutzwiller et al., 2017).</p> <p>Since the ATMP authorizes a maximum number of commercial air tours per year equivalent to three-year average of existing operations on substantially the same route currently used, it is anticipated that there will be little to no change to existing operating conditions and the resultant disturbances to wildlife. Furthermore, the ATMP requires the operator to continue to fly at the same altitudes that are flown under existing operations (minimum 1,500-2,500 ft. AGL, depending on location over the Park). This limits noise exposure to wildlife in the Park and will result in negligible or only beneficial impacts compared to current conditions. Many species of wildlife move, making daily maximum exposure to individual animals less likely.</p> <p>Sunrise and sunset are important times of the day for wildlife, including many species of crepuscular wildlife present within the Park. Biologically important behaviors for many species occur during this time, such as the dawn chorus for songbirds, foraging, and communication. The day/time restrictions and quiet technology incentives included in</p>

	<p>the ATMP provide protection to wildlife that are active during sunrise and sunset, which represents an improvement to current conditions. In the event that operators request and are authorized to use the quiet technology incentive, those tours would result in the possibility of noise beginning one hour after sunrise. The impacts from these flights would be less than the noise modeled in the <i>Noise Technical Analysis</i> but could be more than when there are no flights during this time of day.</p> <p>In conclusion, while wildlife will continue to be exposed to noise, effects are expected to be insignificant and will not be widespread throughout the Park. Any disturbances will likely be temporary in nature and infrequent on both a daily and annual basis. Noise from commercial air tours will be experienced by only those wildlife under or near the designated route, leaving most wildlife in the Park unaffected. The level of noise exposure will be similar or decrease compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the route will remain substantially the same. Therefore, impacts to wildlife are not significant. See also the discussion above for special status species.</p>
Coastal Coastal Resources and Coastal Zones	<p>Portions of the planning area for the ATMP overlap with designated coastal zone areas. The agencies analyzed the ATMP's consistency with the provisions of the California Coastal Act and have found the ATMP to be consistent to the maximum extent practicable with the enforceable provisions of the Act. The California Coastal Commission concurred with this determination on November 17, 2022. Refer to the coastal zone consistency review documentation for more information.</p>
Cultural Cultural Landscapes	<p>The NPS defines a Cultural Landscape as: a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general kinds of cultural landscape, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (NPS, 2002).</p> <p>An impact to a cultural landscape will occur if the project alters any of the characteristics that help make the cultural landscape eligible for listing the National Register of Historic Places (NRHP). This includes any diminishment of the cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. The potential impacts to cultural landscapes from the ATMP are limited to the continuation of visual and audible elements that diminish the integrity of the landscape setting and/or feeling.</p> <p>The Park contains 28 properties documented by the NPS as cultural landscapes. The number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and substantially the same route will be used. On days when commercial air tours will occur, the <i>Noise Technical Analysis</i> shows that aircraft noise related to commercial air tours is predicted to be audible (exceed 35 dBA) for less than ten minutes per day. Therefore, impacts to cultural landscapes will be similar or decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019.</p> <p>The Federal Aviation Administration (FAA), in coordination with the NPS, consulted with the California State Historic Preservation Office, Federated Indians of Graton Rancheria, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including cultural landscapes. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this</p>

	<p>finding to all consulting parties. The FAA did not receive any objections to the finding. See CE Form for further information.</p>
<p>Cultural Ethnographic Resources</p>	<p>The NPS defines Ethnographic Resources as: a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS, 2002). Ethnographic resources include Traditional Cultural Properties (TCPs) (NPS, 1992).</p> <p>An impact to an Ethnographic Resource will occur if the project affected those elements of the resources that make it significant to the group traditionally associated with the resource, or if the project interferes with the use of the resource by the associated groups.</p> <p>The Federated Indians of Graton Rancheria, California, attach religious or cultural significance to areas within and adjacent to the Park. The Tribe has informed Park staff that there are TCPs within the Park that are significant to the Tribe. There are a number of areas throughout the Park that contain traditional natural resources significant to the Tribe such as medicine and food plants and minerals used in pigments and for ceremonial purposes.</p> <p>The ATMP includes provisions that allow for the establishment of no-fly periods. These no-fly periods may be established to avoid conflicts or impacts to tribal ceremonies or similar activities, therefore no impacts on ethnographic resources are anticipated. Sacred ceremonies or other tribal activities which occur without notice to the NPS may be interrupted by noise, however, commercial air tours have no effect on tribal access.</p> <p>The FAA, in coordination with the NPS, consulted with the Federated Indians of Graton Rancheria on the potential impacts of the ATMP on Ethnographic Resources, through compliance with Section 106 of the National Historic Preservation Act. That consultation led to a finding that the ATMP will have no adverse effect on historic properties, which includes Ethnographic Resources. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
<p>Cultural Prehistoric/historic structures</p>	<p>Cultural resources within the Park include a number of archaeological sites and historic structures. As noted above, impacts to these resources will occur if the ATMP alters the characteristics of an archaeological site or historic structure that make it eligible for NRHP listing. Commercial air tours, by their nature, have the potential to impact resources for which only feeling and setting are the contributing elements. Feeling and setting have been identified as contributing elements for 82 cultural resources in the Area of Potential Effects for the Park. Refer to the Section 106 documentation for a complete list.</p> <p>Commercial air tours will result in the continuation of visual and audible elements that are inconsistent with the feeling and setting for these resources. These intrusions will remain infrequent, with no more than 143 instances annually, and of limited duration. Based on the <i>Noise Technical Analysis</i>, on days when commercial air tours will occur, the noise associated with commercial air tours is predicted to be audible (exceed 35 dBA) for less than ten minutes per day. These impacts will be similar to or decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 on</p>

	<p>substantially the same route. Therefore, the ATMP is expected to have negligible or only beneficial impacts on cultural resources when compared to current conditions.</p> <p>The FAA, in coordination with the NPS, consulted with the California State Historic Preservation Office, Federated Indians of Graton Rancheria, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including Cultural; prehistoric/historic structures. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Lightscares Lightscares	Under the ATMP, unless they qualify for the quiet technology incentive, commercial air tours are not permitted before 12:00 PM and after 5:00 PM. Any lights from commercial air tour aircraft are not likely to be noticeable and changes from the current condition will not occur.
Other Human Health and Safety	Commercial air tours are subject to the FAA regulations for protecting individuals and property on the ground, and preventing collisions between aircraft, land or water vehicles, and airborne objects. The operator must continue to meet the FAA safety regulations.
Socioeconomic Minority and low-income populations, size, migration patterns, etc.	U.S. Census data for census blocks surrounding the Park was reviewed to determine the presence of minority or low-income populations outside the Park or within ½-mile of its boundary (United States Census Bureau, 2022). Based on this review, no minority or low-income populations were identified in Marin County. Therefore, the ATMP will not have a disproportionate impact on low-income or minority populations.
Socioeconomic Socioeconomic	Commercial air tours generate income for operators and potentially generate income for other ancillary visitor industry businesses. Visitors from outside the immediate area contribute to this income. Because the number of commercial air tours authorized under the ATMP is the same as the average number of flights from 2017-2019, the NPS does not expect visitor spending on commercial air tours or economic activity in the local communities to change. The competitive bidding process may redistribute the number of flights and income between individual operators in the future but is not anticipated to affect the overall average number of flights or local business activity generated by these flights.
Soundscapes Acoustic Environment	<p>Baseline acoustic conditions in the Park were measured in 2009 and 2010 (Lee and MacDonald, 2011). At the locations nearest the commercial air tour route, the existing ambient daytime sound level was reported to be 30-40 decibels (A-weighted), while the natural ambient daytime sound level was reported to be 25-35 decibels. The existing ambient condition includes all sound associated with a given environment, i.e., natural, human, and mechanical sounds, such as automobiles and aircraft. Aircraft sound measured at a sampling location may include general aviation, commercial jets, military, and air tours. The natural ambient is the sound conditions found in a study area, including all sounds of nature (i.e., wind, water, wildlife, etc.) and excluding all human and mechanical sounds. Both the existing and natural ambient conditions were considered in the resource impacts analysis. Buxton, et al. (2017) found that anthropogenic noise in protected areas is closely linked with transportation, development, and other uses. Aircraft noise was audible at all acoustic monitoring locations in the Park.</p> <p>Depending on a receiver's location on the ground in relation to an aircraft flying overheard, aircraft sound can range from faint and infrequent to loud and intrusive. Impacts of aircraft noise range from masking quieter sounds of nature such as bird vocalizations to noise loud enough to interrupt conversational speech between visitors. To capture how noise may affect quieter natural sounds or conversations, the resource</p>

	<p>impacts analysis examines the time above 35 decibels (for quieter natural sounds and impacts to natural resources) and time above 52 decibels for conversational speech disturbance and impacts to visitor experience.</p> <p>Overall, noise impacts associated with commercial air tours over the Park are not expected to measurably change, since the ATMP authorizes the same number of flights per year as the average number of flights from 2017-2019 on substantially the same route, and requires commercial air tours to maintain the same altitudes flown under existing operations.</p> <p>For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under the National Environmental Policy Act (NEPA), the FAA noise evaluation is based on Yearly³Day Night Average Sound Level (DNL); the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for NEPA. Refer to the <i>Noise Technical Analysis</i> below.</p>
<p>Viewsheds Viewsheds</p>	<p>While studies indicate that aircraft noise in national parks can impact human perceptions of aesthetic quality of viewsheds (Weinzimmer et al. 2014; Benfield et al., 2018), given the relatively low level of flight activity associated with the commercial air tours authorized over the Park by the ATMP, the NPS does not anticipate any impacts. Further, because the level of commercial air tour activity under the ATMP will remain the same, there will be no change in the effect to visitors in this regard. Other literature for studies on impacts from commercial air tours or overflights generally on viewsheds conclude that the visual impacts of overflights are difficult to identify because visitors primarily notice aircraft because of the accompanying noise. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights (along with the position in the scene as viewed from most locations) make it unlikely the typical visitor will notice or be visually distracted by aircraft. The viewer’s eye is often drawn to the horizon to take in a park view and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography.</p> <p>Under existing operations, commercial air tours over the Park are flown on a single route, which flies in a northwesterly direction across the Park, makes a turn around the Lighthouse Visitor Center, then continues in a southeasterly direction back towards the southern end of the Park. The ATMP limits the number of commercial air tours to 143 tours per year and maintains substantially the same route as is currently flown under existing operations. Therefore, impacts to viewsheds will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and the route will remain substantially the same as compared to existing operations. Therefore, impacts to viewsheds would not be considered significant.</p>

³ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low operational levels per year and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

Visitor Use and Experience Recreation Resources	<p>Commercial air tours offer a recreational experience for those who wish to view the Park from a different vantage point. Because the number of commercial air tours under the ATMP is consistent with the average number of flights from 2017-2019, there are no or minimal changes anticipated to the number of commercial air tours offered per year compared to current operations.</p> <p>Currently, customers on commercial air tours are not required to pay an entrance fee at the Park, nor are the commercial air tour operators required to pay a fee to the Park.</p>
Visitor Use and Experience Visitor Use and Experience	<p>The NPS allows visitor uses that are appropriate to the purpose for which the Park was established and can be sustained without causing unacceptable impacts to Park resources or values. Unacceptable impacts are impacts that, individually or cumulatively, will unreasonably interfere with Park programs or activities including interpretive programs, or the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the Park (2006 NPS Management Policies 8.2).</p> <p>Effects of commercial air tours on Park visitor experience have been well documented over many years. See <i>Report on the Effects of Aircraft Overflights on the National Park System</i> (Department of Interior and NPS, 1995). The primary effect of commercial air tours is the introduction of noise into the acoustic environment. Numerous studies have identified the value and importance of soundscapes as one of the motivations for visiting parks (Haas and Wakefield, 1998; McDonald et al., 1995; Merchan et al., 2014; Miller et al., 2018), including in a cross-cultural context (Miller et al., 2018). Other studies have focused specifically on the effects of aircraft on the visitor experience both in parks and protected areas, and a laboratory setting, indicating that aircraft noise negatively impacts the visitor experience (Anderson et al., 2011; Ferguson, 2018; Mace et al., 2013; Rapoza et al., 2015).</p> <p>Currently, some park visitors may hear noise from commercial air tours, which may disrupt visitors or degrade the visitor experience at the Park by disturbing verbal communications and masking the sounds of nature. For example, noise from commercial air tours may disrupt visitors during interpretive and educational programs at historical sites or while hiking, camping, fishing, or participating in other activities. Visitors respond differently to noise from commercial air tour overflights – noise may be more acceptable to some visitors than others. Visitors in backcountry and wilderness areas often find commercial air tours more intrusive than visitors in developed and frontcountry areas where noise from commercial air tours may not be as audible (Rapoza et al., 2015; Anderson et al., 2011).</p> <p>Visitor points of interest include campgrounds, coastal areas, visitor centers, and trails. Ranger-led education and interpretative programs occur across the Park. Wildlife viewing, particularly during morning hours, is a popular visitor activity. Noise disturbances to visitors from commercial air tours are not expected to measurably change under the ATMP because the ATMP authorizes the same number of commercial air tours as the existing three-year average on the same routes, and requires commercial air tours to fly at the existing altitudes reported by the operator. The limited number of commercial air tours on both a daily and annual basis will make it less likely that a visitor is disrupted by multiple commercial air tours during their visit. On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than five minutes a day over the Park. See <i>Noise Technical Analysis</i> below. Finally, limiting the operation of commercial air tours from</p>

	<p>12:00 PM to 5:00 PM, or beginning at 11:00 AM for operators that have converted to quiet technology aircraft and have been authorized by the agencies, provides times when visitors seeking solitude may explore the Park without disruptions from commercial air tours, including providing visitors at the Park opportunities to experience the sights and sounds of wildlife. Collectively, these changes from existing operations will result in some improvement to the visitor experience at the Park.</p>
Wilderness Wilderness	<p>Within the Park, the almost 33,000-acre Phillip Burton Wilderness offers an extraordinary opportunity for solitude and unconfined recreation in untrammelled terrestrial and marine environments and includes one of only two marine wilderness areas in the national park system.</p> <p>Section 2(a) of the Wilderness Act states that wilderness areas “shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character.” Commercial air tours over the Park may impact the following qualities of wilderness character: opportunity for solitude, the natural quality, and other features of value (e.g., cultural resources). Aircraft that land in wilderness detract from the undeveloped quality of wilderness. Because commercial air tours do not land in wilderness or the Park, the undeveloped quality of wilderness is not considered here. As commercial air tours do not in any way manipulate or control wilderness or any resources therein, the untrammelled quality of wilderness is not considered here either.</p> <p><i>Keeping it Wild 2, An Updated Interagency Strategy to Monitor Trends in Wilderness Character Across the National Wilderness Preservation System</i> (Landres, et al., 2015) notes that solitude includes attributes such as “separation from people and civilization, inspiration (an awakening of the senses, connection with the beauty of nature and the larger community of life), and a sense of timelessness (allowing one to let go of day-to-day obligations, go at one’s own pace, and spend time reflecting). A review of research suggests that solitude encapsulates a range of experiences, including privacy, being away from civilization, inspiration, self-paced activities, and a sense of connection with times past (Borrie and Roggenbuck, 2001).” Generally, solitude improves when sights and sounds of human activity are remote. Commercial air tours can represent both a sight and sound of human activity and therefore detract from this quality of wilderness character.</p> <p>Noise from commercial air tours has the potential to disrupt the opportunity for solitude in designated wilderness areas. On days when commercial air tours will occur, noise levels above 35 dBA are not predicted to exceed ten minutes in areas beneath and adjacent to the route (see Figure 1 in the <i>Noise Technical Analysis</i>). The average sound levels (Equivalent Sound Level or $LA_{eq, 12hr}$) are not anticipated to exceed 45 dB in small areas beneath the route. See <i>Noise Technical Analysis</i> below. However, as described in analyses for soundscapes, viewsheds, and visitor use and experience, because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and substantially the same route will be used at the existing altitudes reported by the operator, the NPS anticipates with clear enforceable routes and elevation requirements, impacts would be the same or less when compared to current conditions. Therefore, the impacts to solitude will not be significant.</p> <p>Impacts on the natural quality of wilderness character are the same as those described under the natural resource categories above (biological resources) and will be limited on</p>

	<p>an annual basis under the ATMP. Therefore, the ATMP is not expected to result in a change in impacts to solitude over current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019. Additionally, because the ATMP requires commercial air tours to fly at enforceable altitudes and routes identified in the ATMP which will be further protective of these natural qualities, the NPS anticipates impacts would be similar or decrease when compared to current conditions. Therefore, the impacts to natural character will not be significant.</p> <p>Section 2 (c)(4) of the Wilderness Act states that wildernesses "may contain features of ecological, geological, scientific, educational, scenic, or historical value." Where present, cultural resources are part of this "unique" quality of wilderness character. Therefore, active management of wilderness cultural resources must take into account both cultural resource values and contributions to wilderness character.</p> <p>Flights over sensitive cultural resources located in designated wilderness areas have the potential to impact the auditory and visual area of potential effects of both known and yet unidentified cultural resources. However, as described in analyses for cultural resources above, because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and requires commercial air tours to fly at the same altitudes reported by the operator and on substantially the same route, which are enforceable as identified in the ATMP, the NPS anticipates impacts would be the same or less compared to current conditions. Therefore, the impacts to other features of value within wilderness will not be significant.</p>
Cumulative Effects	<p>The cumulative impact analysis for the ATMP focuses on noise and viewshed impacts. Impacts to other resources, i.e., wildlife, visitor experience, ethnographic resources, wilderness, etc. all result from noise or viewshed impacts.</p> <p>Many activities may contribute noise to the Park's acoustic environment. Aviation activities such as commercial air tours above 5,000 ft. AGL, and overflights by high altitude jets or private aviation regardless of altitude are not subject to regulation under the National Parks Air Tour Management Act (NPATMA). All of these aviation activities may currently contribute noise to the project area. Private and commercial overflights associated with the nearby San Francisco International Airport are commonly flown over the Park. These flights may detract from the Park's viewshed as well.</p> <p>The Park's developed areas and roadways also contribute to ambient noise. Maintenance and other administrative activities may also contribute noise to the acoustic environment, but are generally temporary, irregular, and do not last more than a few hours. Intermittent construction activities may add noise to the Park's acoustic environment, though generally those occur in already developed areas where noise is generally more acceptable and expected.</p> <p>The agencies have qualitatively considered the cumulative impacts of commercial air tours along with impacts from existing activities generally described above. Depending on the level of Park activities at various times of the year, the noise contribution from other sources such as road traffic and visitor use in developed areas may be substantial. There is no known future project that would significantly contribute noise impacts to the project area. Considering existing ambient noise sources and foreseeably future noise sources, the commercial air tour noise is a small contribution of overall noise. Furthermore, the ATMP establishes operating conditions to protect Park natural and</p>

	<p>cultural resources, and it is unlikely it would measurably change the overall acoustic environment. Commercial air tours over Park roadways are likely to be masked by existing noise and therefore the impacts would be de minimis. Finally, the ATMP does not add new noise to the existing acoustic environment. Therefore, when considering other sources of noise in the Park that are likely to continue under the ATMP, the continuation of 143 commercial air tours will not result in a meaningful change to the overall current condition of the Park's visual or auditory landscape.</p> <p>As noted above under viewsheds, visual or viewshed impacts associated with aircraft are most noticeable because of noise. As described above, the ATMP will not result in significant impacts to the acoustic environment. Additionally, there should not be significant cumulative changes to the viewshed since the number of air tours is not increasing but is consistent with the 3-year average.</p> <p>Therefore, no significant cumulative environmental impacts are likely to result from the ATMP.</p>
Indirect Effects	<p>The ATMP applies to all commercial air tours over the four parks or within ½ mile outside their boundaries, that are flown below 5,000 ft. AGL. These flights takeoff and land from the Commodore Center Seaplane Base in Sausalito, CA. The Commodore Center is located approximately eight miles from the Park's ½-mile ATMP boundary. Land uses between the Commodore Center Seaplane Base and the Park's ½-mile boundary buffer primarily include developed residential areas within the greater San Francisco metropolitan area and undeveloped open space. Commercial air tours traveling to and from the Park could result in some temporary noise disturbances in these areas. Commercial air tours may fly over residential areas resulting in temporary noise disturbance to homeowners. Undeveloped lands will likely experience similar impacts to those described in other sections of this ESF, i.e., temporary disturbances to wildlife, etc. although flight altitudes may be different outside the Park's boundary resulting in potentially more adverse impacts than those occurring within the ATMP boundary. Commercial air tours that fly over Golden Gate National Recreation Area or San Francisco Maritime National Historical Park in order to reach the Park are regulated by the ATMP and therefore, the indirect effects to these areas resulting from commercial air tours over the Park are regulated and minimized. Because the number of flights authorized by the ATMP (no more than 143 tours per year) is consistent with existing conditions, these effects are expected to be insignificant.</p> <p>Since the ATMP authorizes the same number of commercial air tours per year as existing operations on substantially the same route, it is unlikely that the frequency and nature of these disturbances outside of the Park and its ½-mile buffer would result in a change from current condition. Therefore, the agencies consider indirect effects of the ATMP to be negligible. However, since the ATMP cannot regulate the flight path, altitude, duration, etc. of flights beyond ½-mile boundary of the four parks included in the ATMP (the operator must comply with relevant FAA regulations), the agencies are unable to require the operator to continue to fly more than ½ mile outside of boundary of the parks in the manner in which they currently fly under existing operations or to require the operator to change any operational parameters (e.g., altitude or routes). However, the agencies are unaware of any reason the operator would deviate from their current flight paths outside the ATMP boundary since the route authorized over the Park has not substantially changed.</p>

Additional Technical Analysis

AIR QUALITY TECHNICAL ANALYSIS

Potential air quality impacts from proposed commercial air tour operations were estimated using an emissions inventory approach. Annual flight miles by aircraft type were calculated for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (GOGA-SAFR-PORE) – 68,300 flight miles. The two aircraft that fly commercial air tours are the DHC-2 Beaver Floatplane (fixed-wing) and Bell 407 (helicopter). The potential impacts of commercial air tours were analyzed jointly across all three parks.

The FAA's Aviation Environmental Design Tool (AEDT) version 3d was used to develop emission factors (pounds of emissions per mile flown) for these aircraft, which were derived from the Environmental Protection Agency's (EPA) AP-42: Compilation of Emission Factors (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974). Although the AP-42 emission factors represent the best available data, they have not been updated since the 1990s and most aircraft engines in use today are likely to be cleaner due to less-polluting fuels and improvements in engine emissions controls. Therefore, these emission rates are considered a conservative estimate of emission rates for aircraft used in commercial air tours.

The maximum emissions (tons per year) were calculated for GOGA-SAFR-PORE⁴ by multiplying the total number of operations (by aircraft type), the longest routes flown by each aircraft type over the parks and the ½ mile boundary outside of the parks, and the aircraft-specific emission factor. The sum of total emissions by aircraft type represent the maximum emissions conditions for the parks. To highlight the potential impacts to ambient air quality for all criteria pollutants, GOGA-SAFR-PORE emissions results were compared with the EPA's General Conformity *de minimis* thresholds for the most stringent⁵ nonattainment areas. EPA's General Conformity *de minimis* thresholds represent a surrogate for impacts to ambient air quality.

The NPS must also consider impacts to resources that are sensitive to air pollution under the NPS Organic Act mandates and the Clean Air Act (CAA). Such resources include (but are not limited to) sensitive vegetation, streams and lakes, aquatic biota and visibility. These resources are typically referred to as Air Quality Related Values (AQRVs). Parks designated Class I areas under the CAA also receive an additional measure of protection under the CAA provisions. The CAA gives the NPS an "affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a Class I area."

Additionally, a portion of GOGA-SAFR-PORE and the ½ mile boundary outside GOGA-SAFR-PORE is classified as Marginal Nonattainment for ozone (2015 standard), Moderate Nonattainment for PM_{2.5} (2006 standard), and Moderate Maintenance for carbon monoxide (1971 standard) and is thus subject to the General Conformity regulations. However, since emissions estimates for all pollutants in across the three parks and the ½-mile boundary outside the parks are well below the most stringent *de minimis* levels (Table 2), a General Conformity Determination is not required. Furthermore, the most stringent *de minimis* emission thresholds for federal conformity determinations are sufficiently low relative to emission thresholds the NPS will use to determine whether additional air quality analysis is necessary under a NEPA analysis. Given this, and the fact that the maximum projected emissions from overflights in GOGA-SAFR-PORE are well below these *de minimis* levels (< 1 TPY for particulate matter and sulfur dioxide, and <2 TPY for nitrogen oxides – criteria pollutants that have the most significant impact on AQRVs), it is expected that emissions from overflights in GOGA-SAFR-PORE under the ATMP will not meaningfully impact AQRVs, or local air quality, and will not have regional impacts from implementation of the ATMP in GOGA-SAFR-PORE.

⁴ Muir Woods National Monument was not included in this analysis because the ATMP does not authorize any commercial air tours over that Park or its ½ mile boundary.

⁵ The most stringent non-attainment areas (i.e., lowest *de minimis* thresholds) are categorized as "extreme" for ozone (VOCs or NOx) and "serious" for particulate matter and sulfur dioxide.

Table 2. Comparison of the emissions inventory for proposed commercial air tours in GOGA-SAFR-PORE with *de minimis* thresholds for the most stringent nonattainment areas.

Pollutant	<i>de minimis</i> threshold (Tons per Year)	Emissions Inventory for GOGA-SAFR- PORE (Tons per Year)
Carbon Monoxide	100	0.221
Volatile Organic Compounds	10	0.008
Nitrogen Oxides	10	1.806
Particulate Matter, diam. < 2.5 µm	70	0.019
Particulate Matter, diam. < 10 µm	70	0.019
Lead	25	0.122
Sulfur Oxides	70	0.254
Carbon Dioxide	n/a	683.707

NOISE TECHNICAL ANALYSIS

Indicators of acoustic conditions

There are numerous ways to measure the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The metrics and acoustical terminology used for the ATMP are shown in Table 3.

Table 3. Primary metrics used for the noise analysis.

Metric	Relevance and citation
Time Above 35 dBA ⁶	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (American National Standards Institute (ANSI), 2007); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (American National Standards Institute/Acoustical Society of America S12.60/Part 1-2010).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974).</p>

⁶ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 µPa. The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.
Day-night average sound level, L_{dn} (or DNL)	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day, DNL takes into account the increased sensitivity to noise at night by including a 10 dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>For aviation noise analyses, the FAA (2015, Appendix. B, B-1) has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of DNL.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and L_{dn} characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for L_{dn}) <p>If there are no nighttime events, then $L_{Aeq, 12\text{ hr}}$ is arithmetically three dBA higher than L_{dn}.</p> <p>The FAA's (2015 Exhibit 4-1) indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.

ATMP as related to indicators

The potential impacts of commercial air tours were analyzed jointly across Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks). In order to provide a conservative evaluation of potential noise effects produced by commercial air tours under the ATMP, the CE analysis is based on a representation of a peak day⁷ of commercial air tour activity. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations and total flight miles over the Park, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity over the Park. For the Park, the 90th percentile day was identified as the following:

- One flight on the Seaplane Adventures PORE – NCT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures GOGA – BAT route using a DHC-2-MKI aircraft

Noise contours for the following acoustic indicators were developed using the FAA's AEDT version 3d and are provided below. A noise contour presents a graphical illustration or "footprint" of the area potentially affected by the noise.

⁷ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low annual operational levels and are highly seasonal in nature, the FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy.

- Time above 35 dBA (minutes) – see Figure 1
- Time above 52 dBA (minutes) – see Figure 2
- Equivalent Sound Level or $L_{Aeq, 12hr}$ – see Figures 3-4
 - Equivalent sound level, $L_{Aeq, 12hr}$ Note: Contours are not presented for L_{dn} (or DNL) as it is arithmetically three dBA lower than $L_{Aeq, 12hr}$ if there are no nighttime events, which is the case for the ATMP modeled at the Park.
- Maximum sound level or L_{max} – see Figures 5-6

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis*. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

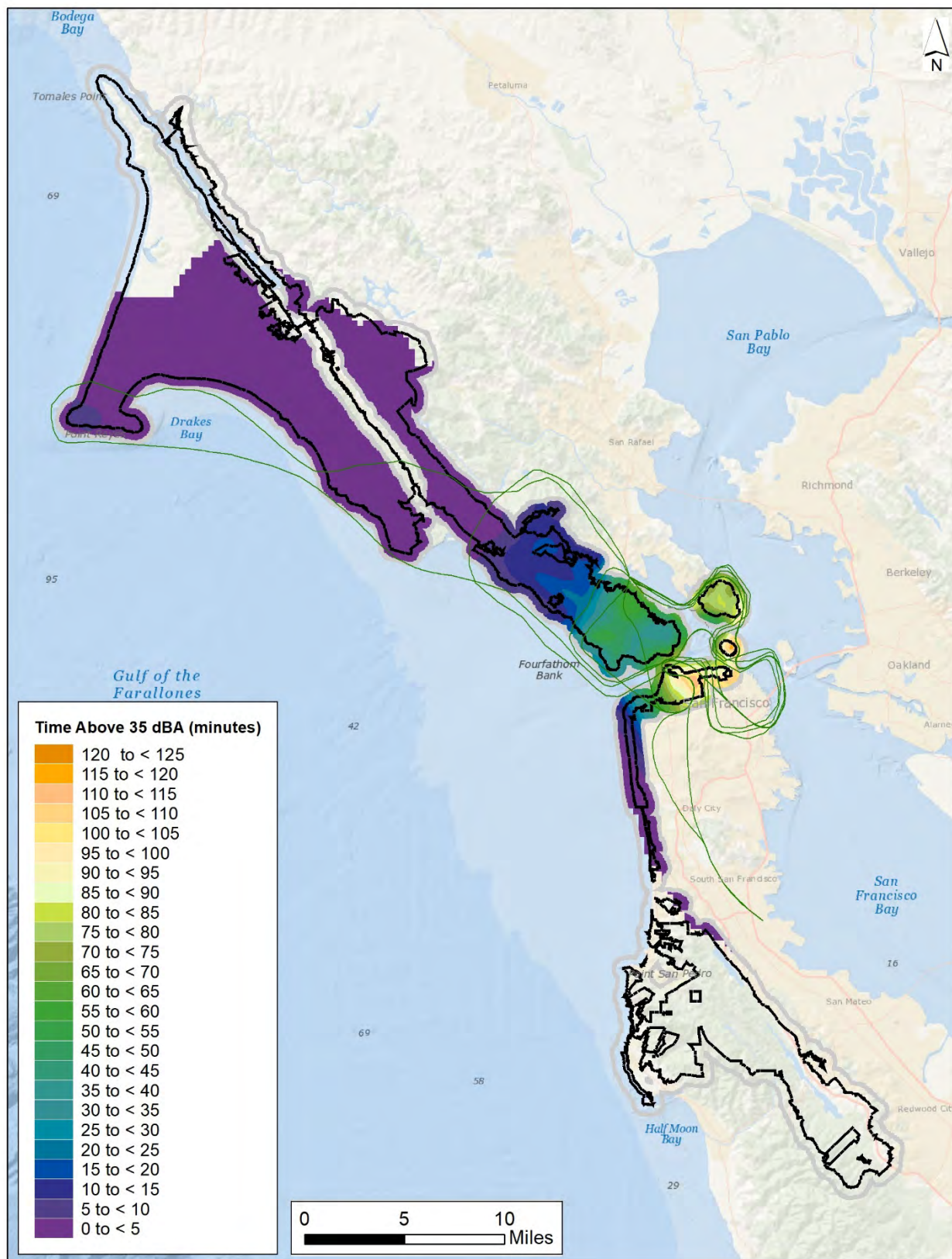


Figure 1. Noise contour results for Time Above 35 dBA

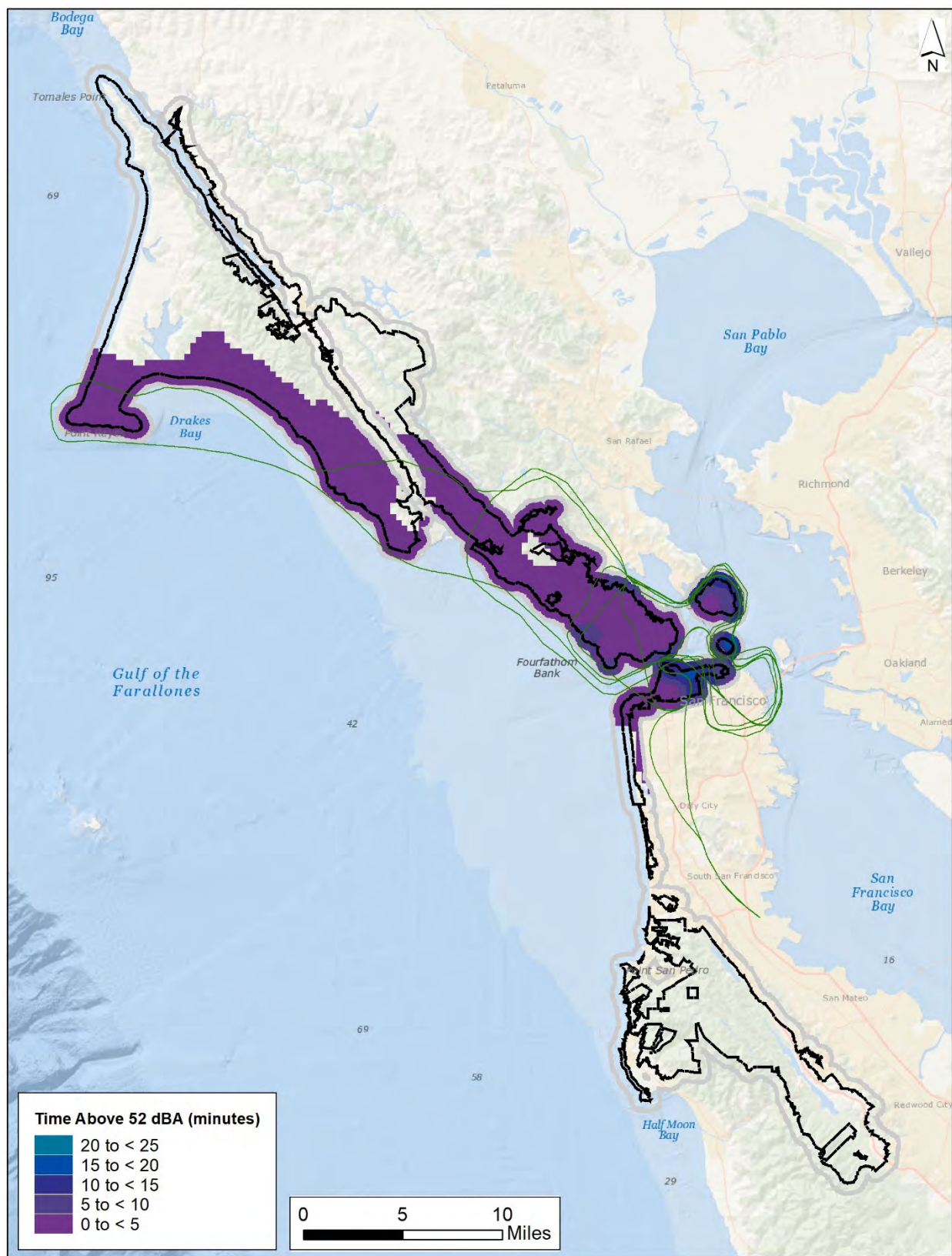


Figure 2. Noise contour results for Time Above 52 dBA

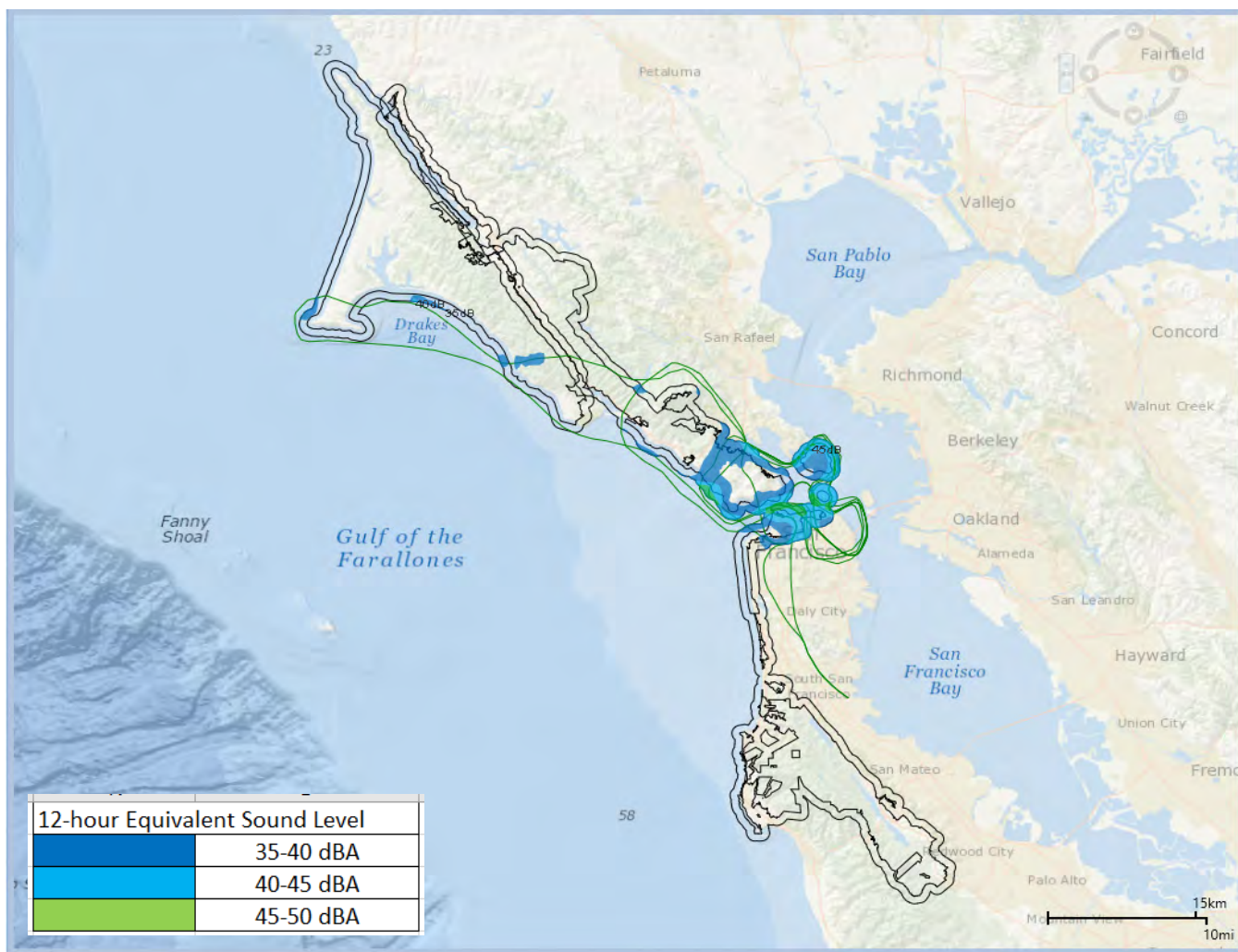


Figure 3. Noise contour results for $L_{Aeq, 12hr}$

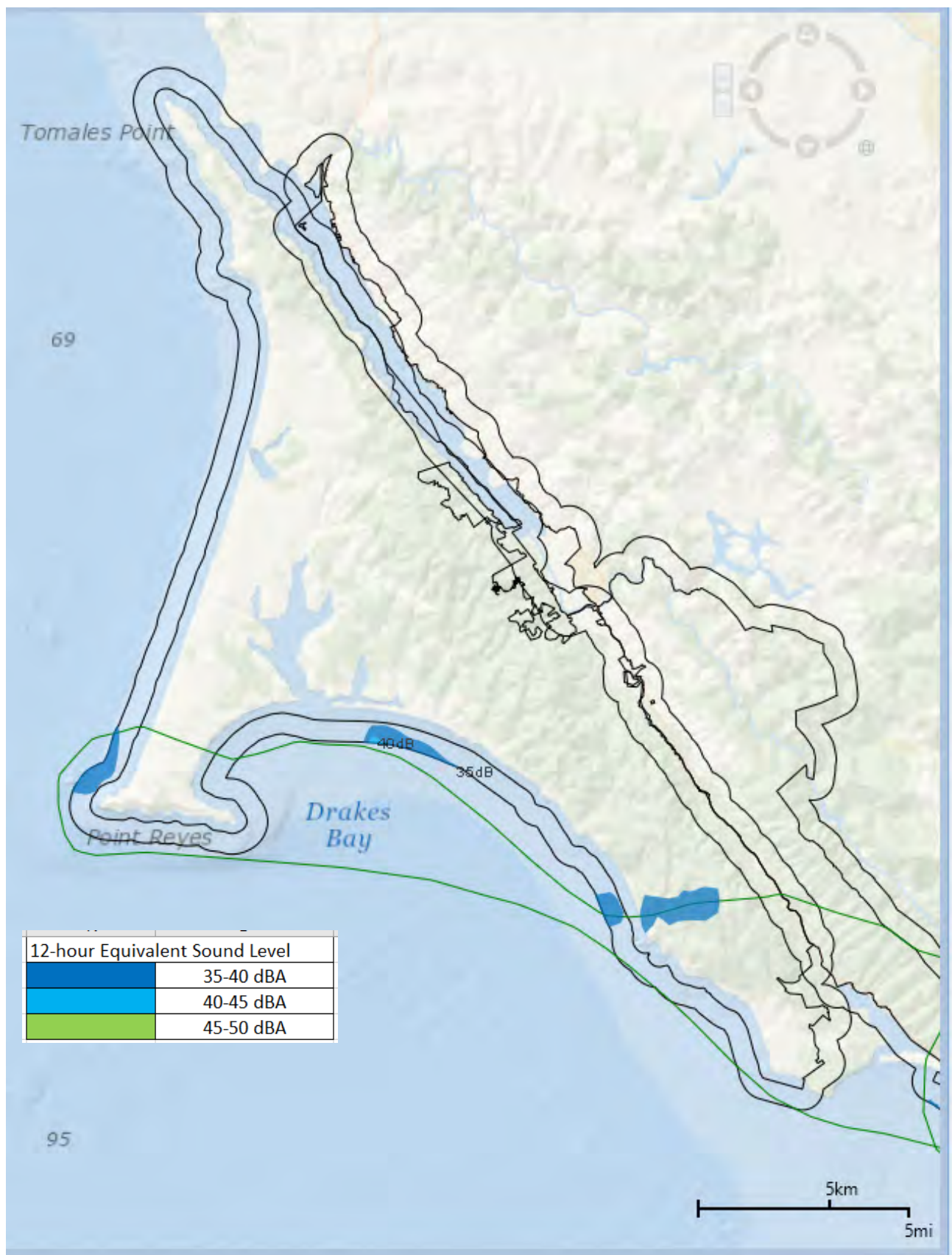


Figure 4. Noise contour results for $L_{Aeq, 12hr}$ (zoomed in)

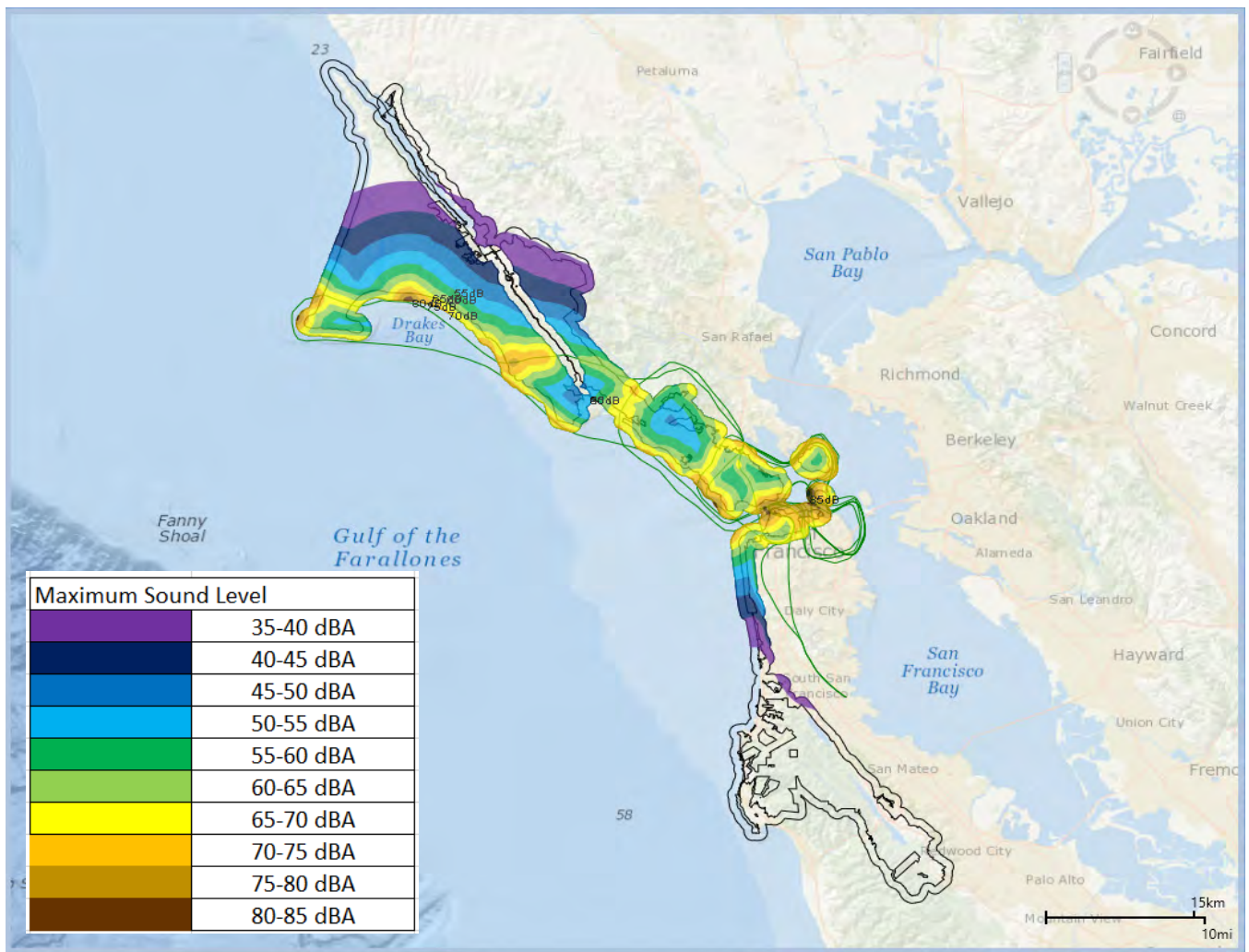


Figure 5. Noise contour results for L_{\max}

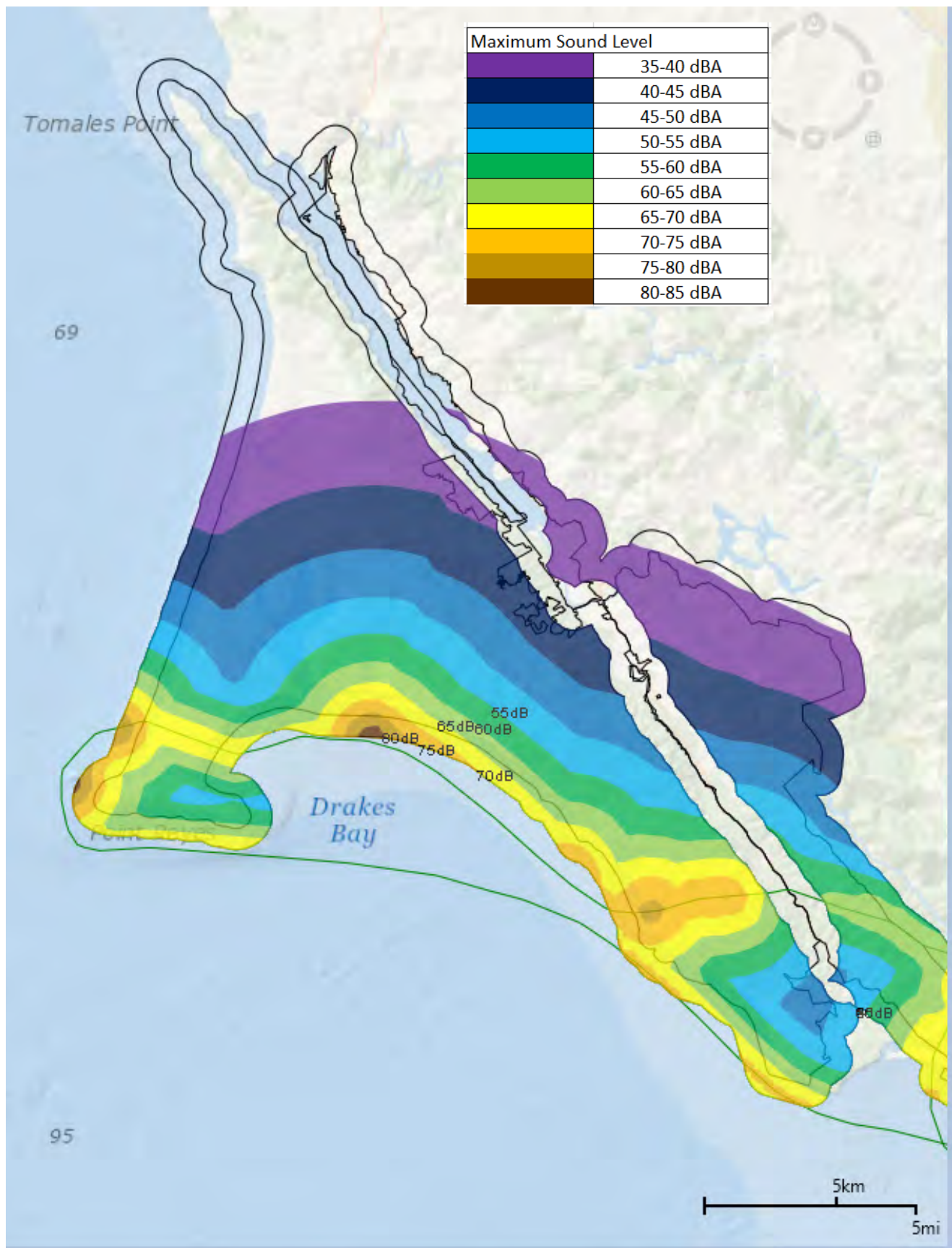


Figure 6. Noise contour results for L_{\max} (zoomed in)

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ENVIRONMENTAL SCREENING FORM (ESF)

PROJECT INFORMATION

Project Title: Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan

PEPC Project Number: 103175

Project Type: Categorical Exclusion

Project Location: San Francisco County and Marin County, California

PROJECT DESCRIPTION

The proposed action is to implement an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore. The “Project Description” section of the Categorical Exclusion (CE) Form for the ATMP sets out the elements of the ATMP and is incorporated herein by reference.

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. Though the ATMP covers four parks, this ESF analyzes the impacts to San Francisco Maritime National Historical Park (Park) from the implementation of the ATMP.

RESOURCE IMPACTS TO CONSIDER

Definition of Effects or Impacts (40 C.F.R. § 1508.1(g))

Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct effects, indirect effects, and cumulative effects. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.

For the purposes of considering environmental impacts, the NPS evaluated the change to the human environment resulting from implementation of the ATMP. Consistent with Council on Environmental Quality regulations, the baseline from which to measure environmental impacts of the ATMP is the current condition of the human environment. In this case, the baseline is the current condition of Park resources and values, as impacted by 2,548 commercial air tours per year (existing three-year average of tours conducted on an annual basis from 2017-2019) along with other planned actions and trends. The baseline also includes the route and altitude information of commercial air tours provided by the operators, as well as the timing and daily commercial air tour information from commercial air tour reports provided by the operators from 2017-2019.

Existing Conditions of Commercial Air Tours over the Park

Two commercial air tour operators, San Francisco Helicopters, LLC and San Francisco Seaplane Tours, Inc., hold Interim Operating Authority (IOA) to conduct a combined total of 5,090 commercial air tours over the Park or within ½ mile of its boundary each year. San Francisco Helicopters, LLC holds IOA for 2,900 commercial air tours over the Park each year, and San Francisco Seaplane Tours, Inc. holds IOA for 2,190 commercial air tours over the Park each year. Due to inconsistencies in commercial air tour reporting for the Park, the three-year average of reporting data from 2017-2019 for Golden Gate National Recreation Area is being used for the Park since it shares a boundary with Golden Gate National Recreation Area and commercial air tour routes that pass over Golden Gate National Recreation Area also pass over or within ½-mile of the Park. San Francisco Helicopters, LLC conducts an average of 1,280 commercial air tours over the Park each year, and San Francisco Seaplane Tours, Inc. conducts an average of 1,268 commercial air tours over the Park each year. The operators conduct commercial air tours on 11 different routes over the Park or within ½-mile of its boundary. San Francisco Helicopters, LLC conducts commercial air tours using BHT-407-407 and BHT-427-427 aircraft (helicopter aircraft) at a minimum altitude of approximately 1,000 ft. AGL. San Francisco Seaplane Tours, Inc. conducts commercial air tours using DHC-2-MKI aircraft (fixed-wing) at a minimum altitude of approximately 1,500 ft. AGL over the Park or within ½ mile of its boundary. Commercial air tours are typically conducted between the hours of 9:00 AM and 6:00 PM and occur year-round. San Francisco Seaplane Tours, Inc. also offers a sunset tour.

Summary of the ATMP as applied to the Park

The ATMP limits the number of commercial air tours that the operators are authorized to conduct over the Park each year to the three-year average of tours conducted on an annual basis from 2017-2019 (2,548 tours per year). The operators will be allowed to conduct commercial air tours on the existing routes and at the same altitudes that the operators currently report flying over the Park and ½ mile boundary (approximately 1,000 ft. AGL minimum altitude for helicopter aircraft, and approximately 1,500 ft. AGL altitude for fixed-wing aircraft). Except as provided for by quiet technology incentives, the ATMP restricts the hours during which commercial air tours may be conducted over the Park, beginning at 9:00 AM until 30 minutes after sunset. The ATMP allows the NPS to establish no-fly periods for special events or planned Park management. The ATMP requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Refer to the ATMP document for more information.

Evaluation of the ATMP

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis* below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Table 1. Potential Issues and Impacts to Resources

Resource	Potential Issues & Impacts
Air Air Quality	The findings from the screening analysis demonstrate that implementing the ATMP will not meaningfully impact (meaning that it will have no or minimal impact) local air quality and will not have regional impacts. See <i>Air Quality Technical Analysis</i> below.

<p>Biological Species of Special Concern or Their Habitat</p>	<p><u>Federally Listed Threatened and Endangered Species</u></p> <p>The Park contains Federally designated threatened and endangered species, including listed fish. Commercial air tours will have no impact on these species or their habitat due to the proposed commercial air tour routes, minimum altitudes, time of day restrictions, type of aircraft, and limit on the maximum number of flights per year that will be permitted under the ATMP. Based on these measures, the ATMP results in no impact on listed species, and after having informal discussions with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service, the agencies have determined the ATMP will have <i>No Effect</i> on listed species or their critical habitat.</p> <p>The Section 7 analysis conducted by the agencies considered the potential effects of the ATMP on listed species and/or designated critical habitat without the consequences to those listed species by the existing commercial air tours, in accordance with 50 CFR § 402.02. Refer to the Section 7 documentation for additional information, which includes the agencies' analysis. The ATMP is expected to have no impacts or only beneficial impacts on listed species when compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and routes and altitudes will remain the same when compared with existing operations.</p> <p><u>Special Status Species and Migratory Birds</u></p> <p>Raptors may collide with aircraft because of the altitude at which raptors fly. The ATMP authorizes the same number of flights on the same routes and altitudes as existing operations. Therefore, the ATMP is expected to have negligible impacts on these species when compared to current conditions. The requirement to report bird strikes, detailed above, also will allow the agencies to assess the effectiveness of these protections, and to modify them in the event that unanticipated adverse impacts are observed.</p>
<p>Biological Wildlife and/or Wildlife Habitat including terrestrial and aquatic species</p>	<p>The Park includes a maritime museum, a visitor center, and the Hyde Street Pier. These areas are highly developed. Some fish species, such as coho and steelhead fish are present in the areas around the pier and shoreline. Migratory birds may also be present in the area. Since the ATMP authorizes a maximum number of commercial air tours per year equivalent to the existing three-year average on the same routes and altitudes reported by the operators under existing operations, it is anticipated that there will be little to no change to existing operating conditions and the resultant disturbances to wildlife. While wildlife will continue to be exposed to noise, the level of noise exposure will be similar to existing conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019. Therefore, impacts to wildlife are not significant. See also the discussion above for special status species.</p>
<p>Coastal Coastal Resources and Coastal Zones</p>	<p>Portions of the planning area for the ATMP overlap with designated coastal zone areas. The agencies analyzed the ATMP's consistency with the McAteer-Petris Act and the policies set forth in the San Francisco Bay Plan, and have found the ATMP to be consistent with them to the maximum extent practicable. The San Francisco Bay Conservation and Development Commission is presumed to concur with the agencies' determination. Refer to the coastal zone consistency review documentation for more information.</p>

<p>Cultural Cultural Landscapes</p>	<p>The NPS defines a Cultural Landscape as: a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general kinds of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (NPS, 2002).</p> <p>An impact to a cultural landscape will occur if the project alters any of the characteristics that help make the cultural landscape eligible for listing in the National Register of Historic Places (NRHP). This includes any diminishment of the cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. The potential impacts to cultural landscapes from the ATMP are limited to the continuation of visual and audible elements that diminish the integrity of the landscape setting and/or feeling.</p> <p>The Aquatic Park is a historic district within the Area of Potential Effects that has been identified and evaluated within the context of cultural landscapes and is listed in the NRHP. The period of significance for this property dates to 1920-1945 and aircraft were part of the current visible and auditory landscape during that time. As such, authorizing commercial air tours to continue to operate as part of the undertaking will have no or minimal impact the integrity of the landscapes' setting, feeling, and association. The <i>Noise Technical Analysis</i>¹ shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than ten minutes a day. Furthermore, the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the same routes and altitudes will be used. Therefore, impacts to cultural landscapes will be similar compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019.</p> <p>The Federal Aviation Administration (FAA), in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including cultural landscapes. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding. See CE Form for further information.</p>
<p>Cultural Ethnographic Resources</p>	<p>The NPS defines Ethnographic Resources as: a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS, 2002). Ethnographic Resources include Traditional Cultural Properties (TCPs) (NPS, 1992).</p> <p>An impact to an Ethnographic Resource will occur if the project affected those elements of the resources that make it significant to the group traditionally</p>

¹ See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

	<p>associated with the resource, or if the project interferes with the use of the resource by the associated groups.</p> <p>There are no known Ethnographic Resources within the Park.</p> <p>The FAA, in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including cultural landscapes. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Cultural Prehistoric/historic structures	<p>The Park maintains the largest and most diverse collection of national historic landmark ships in the United States. As noted above, impacts to these resources will occur if the ATMP alters the characteristics of an archaeological site or historic structure that make it eligible for NRHP listing. Commercial air tours, by their nature, have the potential to impact resources for which only feeling and setting are the contributing elements. Feeling and setting have been identified as contributing elements for 82 cultural resources in the Area of Potential Effects for the Park. Refer to the Section 106 documentation for a complete list.</p> <p>The visual and audible elements of commercial air tours are consistent with the dense urban feeling and setting for these resources. These intrusions will be limited to a maximum of 2,548 instances per year, and of limited duration. The <i>Noise Technical Analysis</i>² shows that aircraft noise related to commercial air tours are predicted to be greater than 52 dBA for less than ten minutes a day. These impacts will be similar compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, and the ATMP requires operators to fly on the same routes and altitudes as existing operations. Therefore, the ATMP is expected to have negligible or only beneficial impacts on the Park's cultural resources when compared to current conditions.</p> <p>The FAA, in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including Cultural; prehistoric/historic structures. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Lightscapes Lightscapes	<p>Under the ATMP, unless they qualify for the quiet technology incentive, commercial air tours are not permitted before 9:00 AM or 30 minutes after sunset. Any lights from commercial air tour aircraft are not likely to be noticeable and any impacts will be similar to or decrease compared to current conditions because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019. Therefore, impacts to the Park's lightscapes will not be significant.</p>

² See also note preceding Table 1 regarding minor altitude adjustments not reflected in the noise modeling.

Other Human Health and Safety	Commercial air tours are subject to the FAA regulations for protecting individuals and property on the ground, and preventing collisions between aircraft, land or water vehicles, and airborne objects. The operators must continue to meet the FAA safety regulations.
Socioeconomic Minority and low-income populations, size, migration patterns, etc.	U.S. Census data for census blocks surrounding the Park was reviewed to determine the presence of minority or low-income populations outside the Park and within ½-mile of its boundary (United States Census Bureau, 2022). Based on this review, minority populations were identified in San Francisco County. However, commercial air tours will not have a disproportionate impact on low-income or minority populations, since the noise associated with commercial air tours will occur in areas directly beneath and adjacent to the routes over the Park and will not be concentrated over low-income or minority populations. Therefore, the ATMP will not have a disproportionate impact on low-income or minority populations.
Socioeconomic Socioeconomic	Commercial air tours generate income for operators and potentially generate income for other ancillary visitor industry businesses. Visitors from outside the immediate area contribute to this income. Because the number of commercial air tours authorized under the ATMP is the same as the average number of flights from 2017-2019, the Park does not expect visitor spending on commercial air tours or economic activity in the local communities to change. The competitive bidding process may redistribute the number of flights and income between individual operators in the future but is not anticipated to affect the overall average number of flights or local business activity generated by these flights.
Soundscapes Acoustic Environment	<p>Baseline acoustic conditions in the Park have not been measured but were measured nearby at Golden Gate National Recreation Area in 2007 and 2008. The existing acoustic conditions at the Park have been estimated using data from developed sites at Golden Gate National Recreation Area. Due to the urban setting of the Park, only the existing ambient conditions were considered in the resource impacts analysis. The modeled daytime existing ambient sound level without air tours was 55-60 decibels, which is typical of an urban setting (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974). The existing ambient condition includes all sound associated with a given environment, i.e., natural, human, and mechanical sounds, such as automobiles and aircraft. Aircraft sound measured at a sampling location may include general aviation, commercial jets, military, and air tours.</p> <p>Depending on a receiver's location on the ground in relation to an aircraft flying overheard, aircraft sound can range from faint and infrequent to loud and intrusive. Due to the urban setting of the Park, only time above 52 decibels for conversational speech disturbance and impacts to visitor experience were considered.</p> <p>Overall, noise impacts associated with commercial air tours over the Park are not expected to measurably change, since the ATMP authorizes the same number of flights per year as the average number of flights from 2017-2019 and requires commercial air tours to maintain the same routes and altitudes flown under existing operations. It should be noted that when the altitude of an aircraft is increased, the total area exposed to the noise from that aircraft may also increase depending on the surrounding terrain. Although the area exposed to noise might increase, this would not meaningfully affect the acoustic environment because of</p>

	<p>the attenuation of the noise from higher altitude and transient nature of the impacts.</p> <p>For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under the National Environmental Policy Act (NEPA), the FAA noise evaluation is based on Yearly³ Day Night Average Sound Level (DNL); the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for NEPA. Refer to the <i>Noise Technical Analysis</i> below.</p>
Viewsheds Viewsheds	<p>While studies indicate that aircraft noise in national parks can impact human perceptions of aesthetic quality of viewsheds (Weinzimmer et al., 2014; Benfield et al., 2018), because the level of commercial air tour activity under the ATMP will remain the same, there will be no change in the effect to visitors in this regard. Other literature for studies on impacts from commercial air tours or overflights generally on viewsheds conclude that the visual impacts of overflights are difficult to identify because visitors primarily notice aircraft because of the accompanying noise. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights (along with the position in the scene as viewed from most locations) make it unlikely the typical visitor will notice or be visually distracted by aircraft. The viewer’s eye is often drawn to the horizon to take in a park view and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography.</p> <p>Under existing operations, commercial air tours over the Park or outside the Park but within ½-mile of its boundary are flown on 11 different routes. The ATMP limits the number of commercial air tours per year to 2,548 tours and maintains the same routes and altitudes as are flown under existing operations. Therefore, impacts to the Park’s viewsheds will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019.</p>
Visitor Use and Experience Recreation Resources	<p>Commercial air tours offer a recreational experience for those who wish to view the Park from a different vantage point. Because the number of commercial air tours under the ATMP is consistent with the average number of flights from 2017-2019, there are no or minimal changes anticipated to the number of commercial air tours offered per year compared to current operations.</p> <p>Currently, customers on commercial air tours are not required to pay an entrance fee at the Park, nor are the commercial air tour operators required to pay a fee to the Park.</p>
Visitor Use and Experience Visitor Use and Experience	<p>The NPS allows visitor uses that are appropriate to the purpose for which the Park was established and can be sustained without causing unacceptable impacts to Park resources or values. Unacceptable impacts are impacts that, individually or</p>

³ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low operational levels per year and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

	<p>cumulatively, will unreasonably interfere with Park programs or activities including interpretive programs, or the historic or commemorative locations within the Park (NPS 2006 Management Policies 8.2).</p> <p>Effects of commercial air tours on Park visitor experience have been well documented over many years. See <i>Report on the Effects of Aircraft Overflights on the National Park System</i> (Department of Interior and the National Park Service, 1995). The primary effect of commercial air tours is the introduction of noise into the acoustic environment. Numerous studies have identified the value and importance of soundscapes as one of the motivations for visiting parks (Haas and Wakefield, 1998; McDonald et al., 1995; Merchan et al., 2014; Miller et al., 2018), including in a cross-cultural context (Miller et al., 2018). Other studies have focused specifically on the effects of aircraft on the visitor experience both in parks and protected areas, and a laboratory setting, indicating that aircraft noise negatively impacts the visitor experience (Anderson et al., 2011; Ferguson, 2018; Mace et al., 2013; Rapoza et al., 2015). Based on the results of a visitor survey that was conducted at the Park in 2017, the vast majority, 72%, reported that noise was not a problem, while another 25% reported noise was a small problem (NPS and Resource Systems Group, 2017). The results of this survey indicate that in general noise is not an issue for visitor experience at the Park.</p> <p>Currently, some park visitors may hear noise from commercial air tours, which may disrupt visitors or degrade the visitor experience at the Park by disturbing verbal communications. For example, noise from commercial air tours may disrupt visitors during interpretive and educational programs at historical sites. Visitors respond differently to noise from commercial air tour overflights – noise may be more acceptable to some visitors than others (Rapoza et al., 2015; Anderson et al., 2011).</p> <p>Visitor points of interest include the Park’s visitor center, historic ships, ranger-led interpretive programs, Maritime Museum, beach, and the Hyde Street Pier. Noise disturbances to visitors from commercial air tours are not expected to measurably change under the ATMP because the ATMP authorizes the same number of commercial air tours per year as the average number of flights from 2017-2019 and requires commercial air tours to fly at the same altitudes and on the same routes reported by the operators. Therefore, the ATMP is not expected to result in an impact to visitor experience at the Park.</p>
Wilderness Wilderness	There is no wilderness located within the Park. Therefore, no impacts to Park wilderness will occur as a result of the ATMP.
Cumulative Effects	<p>The cumulative impact analysis for the ATMP focuses on noise and viewshed impacts. Impacts to other resources, i.e., wildlife, visitor experience, ethnographic resources, wilderness, etc. all result from noise or viewshed impacts.</p> <p>Many activities may contribute noise to the Park’s acoustic environment. Aviation activities such as commercial air tours above 5,000 ft. AGL, and overflights by high altitude jets or private aviation regardless of altitude are not subject to regulation under the National Parks Air Tour Management Act (NPATMA). All of these aviation activities may currently contribute noise to the project area. Private and commercial overflights associated with the nearby San</p>

	<p>Francisco International Airport are commonly flown over the Park. These flights may detract from the Park's viewshed as well.</p> <p>The Park's developed areas, which encompass the entire Park, also contribute to ambient noise. Maintenance and other administrative activities may also contribute noise to the acoustic environment, but are generally temporary, irregular, and do not last more than a few hours. Intermittent construction activities may add noise to the Park's acoustic environment, though generally those occur in already developed areas where noise is generally more acceptable and expected. Developed areas surrounding the Park near downtown San Francisco also contribute ambient noise the Park's acoustic environment.</p> <p>The agencies have qualitatively considered the cumulative impacts of commercial air tours along with impacts from existing activities generally described above. Depending on the level of Park activities at various times of the year, the noise contribution from other sources such as road traffic and visitor use in developed areas may be substantial. There is no known future project that would significantly contribute noise impacts to the project area. Considering existing ambient noise sources and foreseeably future noise sources, the commercial air tour noise is a small contribution of overall noise. Furthermore, the ATMP establishes operating conditions to protect Park natural and cultural resources, and it is unlikely it would measurably change the overall acoustic environment. Commercial air tours over Park roadways are likely to be masked by existing noise and therefore the impacts would be de minimis. Finally, the ATMP does not add new noise to the existing acoustic environment. Therefore, when considering other sources of noise in the Park that are likely to continue under the ATMP, the continuation of 2,548 commercial air tours will not result in a meaningful change to the current condition of the Park's visual or auditory landscape.</p> <p>As noted above under viewsheds, visual or viewshed impacts associated with aircraft are most noticeable because of noise. As described above, the ATMP will not result in significant impacts to the acoustic environment. Additionally, there should not be significant cumulative changes to the viewshed since the number of commercial air tours is not increasing but is consistent with the 3-year average.</p> <p>Therefore, no significant cumulative environmental impacts are likely to result from the ATMP.</p>
Indirect Effects	<p>The ATMP applies to all commercial air tours over the Park, Golden Gate National Recreation Area, Muir Woods National Monument⁴, and Point Reyes National Seashore, or within ½ mile outside these parks' boundaries that are flown below 5,000 ft. AGL. These flights takeoff and land from the San Francisco International Airport and the Commodore Center heliport in Sausalito, CA. The Commodore Center is approximately six miles from the nearest point of the Park's ½-mile boundary buffer and the San Francisco International Airport is approximately 12 miles from the nearest point of the Park's ½-mile ATMP boundary. Land uses between the airports and the Park's ½-mile ATMP</p>

⁴ The ATMP does not authorize any air tours over Muir Woods National Monument or its ½-mile boundary, which maintains the current level of air tour activity.

	<p>boundary primarily include heavily developed commercial and residential areas within the greater San Francisco metropolitan area, although some undeveloped areas associated with other protected areas of open space are also present. Commercial air tours traveling to and from the Park could result in some temporary noise disturbances in these areas. Commercial air tours may fly over residential areas resulting in temporary noise disturbance to homeowners. Undeveloped lands will likely experience similar impacts to those described in other sections of this ESF, i.e., temporary disturbances to wildlife, etc. although flight altitudes may be different more than ½ mile of the outside the Park boundary resulting in potentially more adverse impacts than those occurring within the ATMP boundary. Because the number of flights authorized by the ATMP (no more than 2,548 tours per year) is consistent with existing operations, these effects are expected to be insignificant.</p> <p>Since the ATMP authorizes the same number of commercial air tours per year as existing operations on the same routes, it is unlikely that the frequency and nature of these disturbances outside of the Park and its ½-mile ATMP boundary would result in a change from current condition. Therefore, the agencies consider indirect effects of the ATMP to be negligible. However, since the ATMP cannot regulate the flight path, altitude, duration, etc. of flights more than ½-mile outside the boundaries of the four parks covered by the ATMP (the operators must comply with relevant FAA regulations), the agencies are unable to require operators to continue to fly outside of area covered by the ATMP in the manner in which they currently fly under existing operations or to require operators to change any operational parameters (e.g., altitude or routes). However, the agencies are unaware of any reason the operator would deviate from their current flight paths outside the ATMP boundary since routes have not changed.</p>
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Additional Technical Analysis

AIR QUALITY TECHNICAL ANALYSIS

Potential air quality impacts from proposed commercial air tour operations were estimated using an emissions inventory approach. Annual flight miles by aircraft type were calculated for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (GOGA-SAFR-PORE) – 68,300 flight miles. The two aircraft that fly commercial air tours are the DHC-2 Beaver Floatplane (fixed-wing) and Bell 407 (helicopter). The potential impacts of commercial air tours were analyzed jointly across all three parks.

The FAA's Aviation Environmental Design Tool (AEDT) version 3d was used to develop emission factors (pounds of emissions per mile flown) for these aircraft, which were derived from the Environmental Protection Agency's (EPA) AP-42: Compilation of Emission Factors (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974). Although the AP-42 emission factors represent the best available data, they have not been updated since the 1990s and most aircraft engines in use today are likely to be cleaner due to less-polluting fuels and improvements in engine emissions controls. Therefore, these emission rates are considered a conservative estimate of emission rates for aircraft used in commercial air tours.

The maximum emissions (tons per year) were calculated for GOGA-SAFR-PORE⁵ by multiplying the total number of operations (by aircraft type), the longest routes flown by each aircraft type over the parks and the ½ mile boundary outside of the parks, and the aircraft-specific emission factor. The sum of total emissions by aircraft type represent the maximum emissions conditions for the parks. To highlight the potential impacts to ambient air quality for all criteria pollutants, GOGA-SAFR-PORE emissions results were compared with the EPA’s General Conformity *de minimis* thresholds for the most stringent⁶ nonattainment areas. EPA’s General Conformity *de minimis* thresholds represent a surrogate for impacts to ambient air quality.

The NPS must also consider impacts to resources that are sensitive to air pollution under the NPS Organic Act mandates and the Clean Air Act (CAA). Such resources include (but are not limited to) sensitive vegetation, streams and lakes, aquatic biota and visibility. These resources are typically referred to as Air Quality Related Values (AQRVs). Parks designated Class I areas under the CAA also receive an additional measure of protection under the CAA provisions. The CAA gives the NPS an “affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a Class I area.”

Additionally, a portion of GOGA-SAFR-PORE and the ½ mile boundary outside GOGA-SAFR-PORE is classified as Marginal Nonattainment for ozone (2015 standard), Moderate Nonattainment for PM_{2.5} (2006 standard), and Moderate Maintenance for carbon monoxide (1971 standard) and is thus subject to the General Conformity regulations. However, since emissions estimates for all pollutants in the entirety of the Parks and also in the area within the ½-mile boundary outside the parks are well below the most stringent *de minimis* levels (Table 2), a General Conformity Determination is not required. Furthermore, the most stringent *de minimis* emission thresholds for federal conformity determinations are sufficiently low relative to emission thresholds the NPS will use to determine whether additional air quality analysis is necessary under a NEPA analysis. Given this, and the fact that the maximum projected emissions from overflights in GOGA-SAFR-PORE are well below these *de minimis* levels (< 1 TPY for particulate matter and sulfur dioxide, and <2 TPY for nitrogen oxides – criteria pollutants that have the most significant impact on AQRVs), it is expected that emissions from overflights in GOGA-SAFR-PORE under the ATMP will not meaningfully impact AQRVs, or local air quality, and will not have regional impacts from implementation of the ATMP in GOGA-SAFR-PORE.

Table 2. Comparison of the emissions inventory for proposed commercial air tours in GOGA-SAFR-PORE with *de minimis* thresholds for the most stringent nonattainment areas.

Pollutant	<i>de minimis</i> threshold (Tons per Year)	Emissions Inventory for GOGA-SAFR- PORE (Tons per Year)
Carbon Monoxide	100	0.221
Volatile Organic Compounds	10	0.008
Nitrogen Oxides	10	1.806
Particulate Matter, diam. < 2.5 µm	70	0.019
Particulate Matter, diam. < 10 µm	70	0.019
Lead	25	0.122
Sulfur Oxides	70	0.254
Carbon Dioxide	n/a	683.707

²Muir Woods National Monument was not included in this analysis because the ATMP does not authorize any commercial air tours over that Park or its ½ mile boundary.

³The most stringent non-attainment areas (i.e., lowest *de minimis* thresholds) are categorized as “extreme” for ozone (VOCs or NOx) and “serious” for particulate matter and sulfur dioxide.

NOISE TECHNICAL ANALYSIS

Indicators of acoustic conditions

There are numerous ways to measure the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The metrics and acoustical terminology used for the ATMP are shown in Table 3.

Table 3. Primary metrics used for the noise analysis.

Metric	Relevance and citation
Time Above 35 dBA ⁷	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (American National Standards Institute (ANSI), 2007); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (American National Standards Institute/Acoustical Society of America S12.60/Part 1-2010).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974).</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p>
Day-night average sound level, L_{dn} (or DNL)	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day, DNL takes into account the increased sensitivity to noise at night by including a 10 dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>For aviation noise analyses, the FAA (2015, Appendix. B, B-1) has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of DNL.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and L_{dn} characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for L_{dn}) <p>If there are no nighttime events, then $L_{Aeq, 12\text{ hr}}$ is arithmetically three dBA higher than L_{dn}.</p>

⁷ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	The FAA's (2015 Exhibit 4-1) indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.
Maximum sound level, L_{\max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{\max} does not provide any context of frequency, duration, or timing of exposure.

ATMP as related to indicators

The potential impacts of commercial air tours were analyzed jointly across Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. In order to provide a conservative evaluation of potential noise effects produced by commercial air tours under the ATMP, the CE analysis is based on a representation of a peak day⁸ of commercial air tour activity. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity over the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

Noise contours for the following acoustic indicators were developed using the FFAA's AEDT version 3d and are presented below. A noise contour presents a graphical illustration or "footprint" of the area potentially affected by the noise.

- Time above 35 dBA (minutes) – see Figure 1
 - Note: The utility of this metric may be limited in urban environments such as San Francisco Maritime National Historical Park and surrounding areas where the ambient sound level is generally greater than 45-50 dBA. Therefore, it is not referenced in the resource analysis.
- Time above 52 dBA (minutes) – see Figure 2
 - Note: The utility of this metric may be limited in urban environments such as San Francisco Maritime National Historical Park and surrounding areas where the ambient sound level is generally greater than 45-50 dBA.
- Equivalent Sound Level or $L_{Aeq, 12hr}$ – see Figure 3
 - Equivalent sound level or $L_{Aeq, 12hr}$ Note: Contours are not presented for L_{dn} (or DNL) as it is arithmetically three dBA lower than $L_{Aeq, 12hr}$ if there are no nighttime events, which is the case for the ATMP modeled at the Park.

⁸ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low operational levels per year and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

- Maximum sound level or L_{\max} – see Figure 4

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis*. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

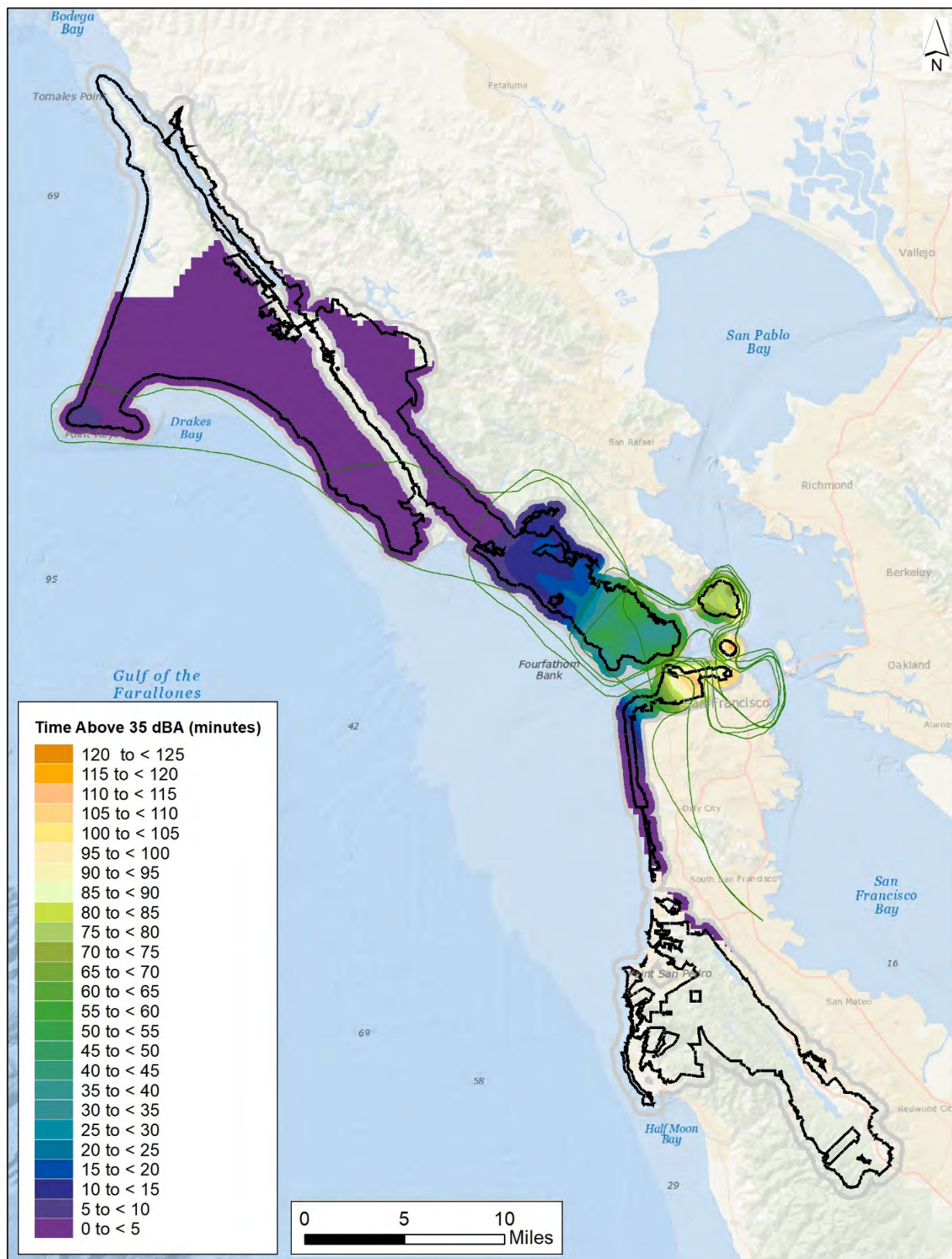


Figure 1. Noise contour results for Time Above 35 dBA

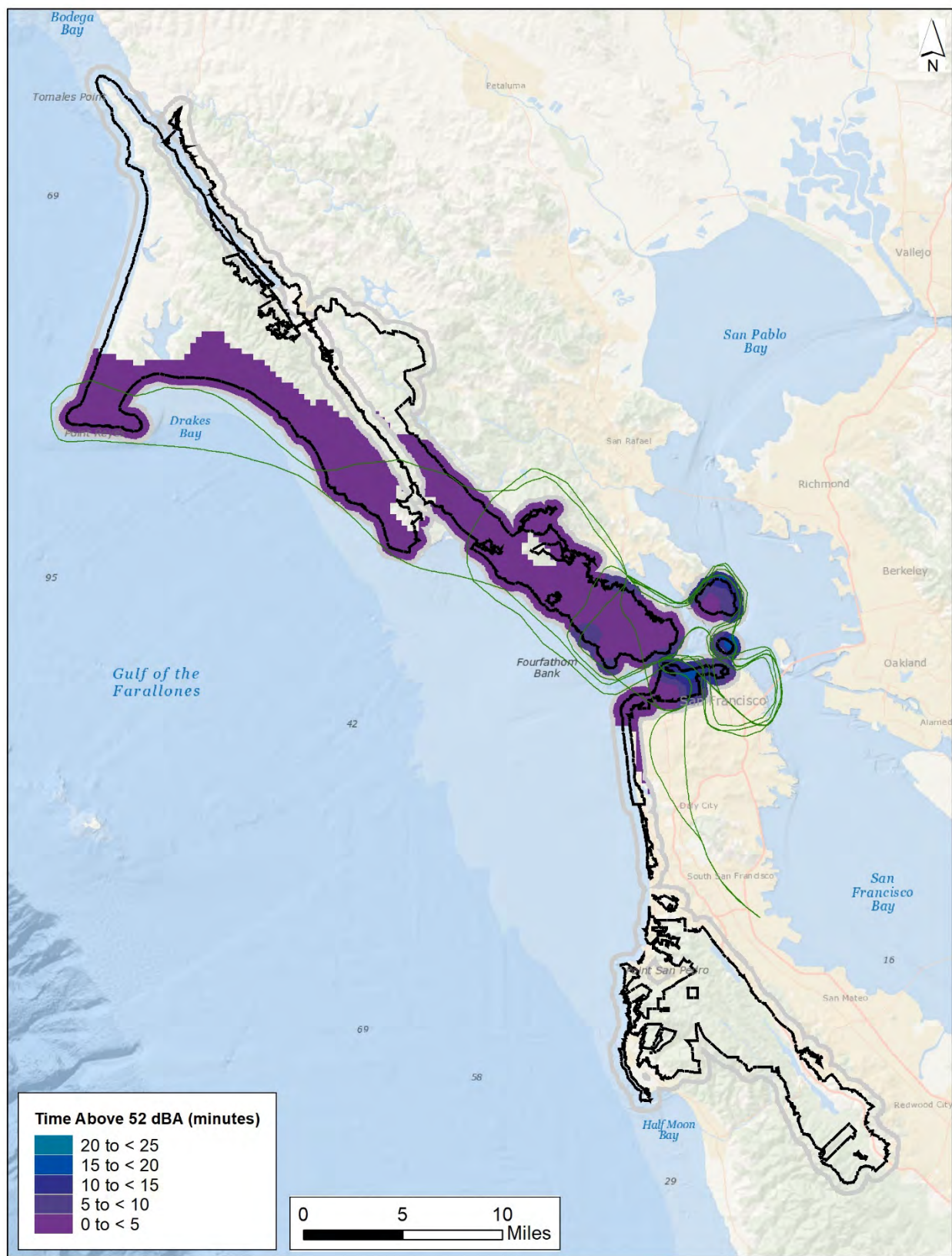


Figure 2. Noise contour results for Time Above 52 dBA

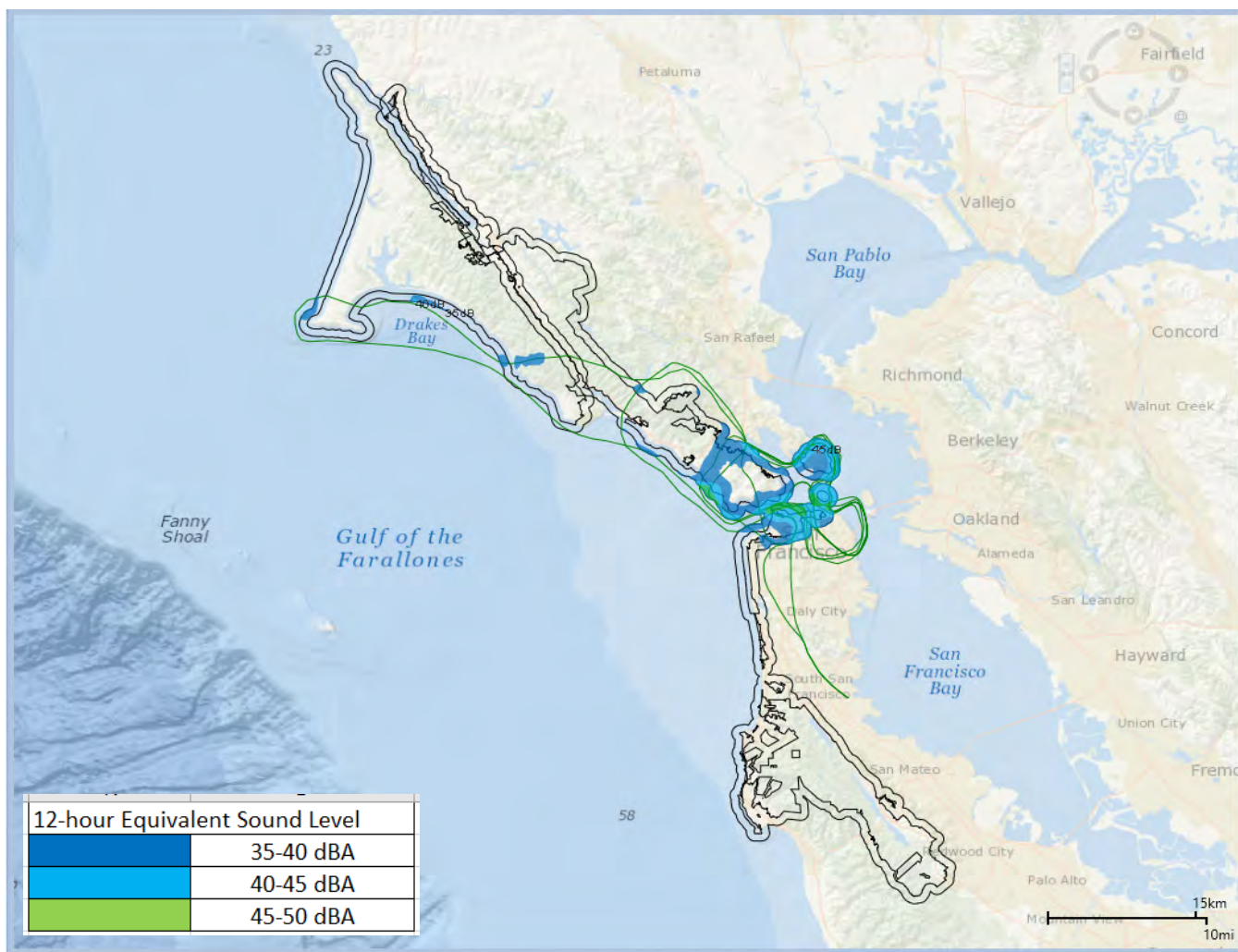


Figure 3. Noise contour results for $L_{Aeq, 12hr}$

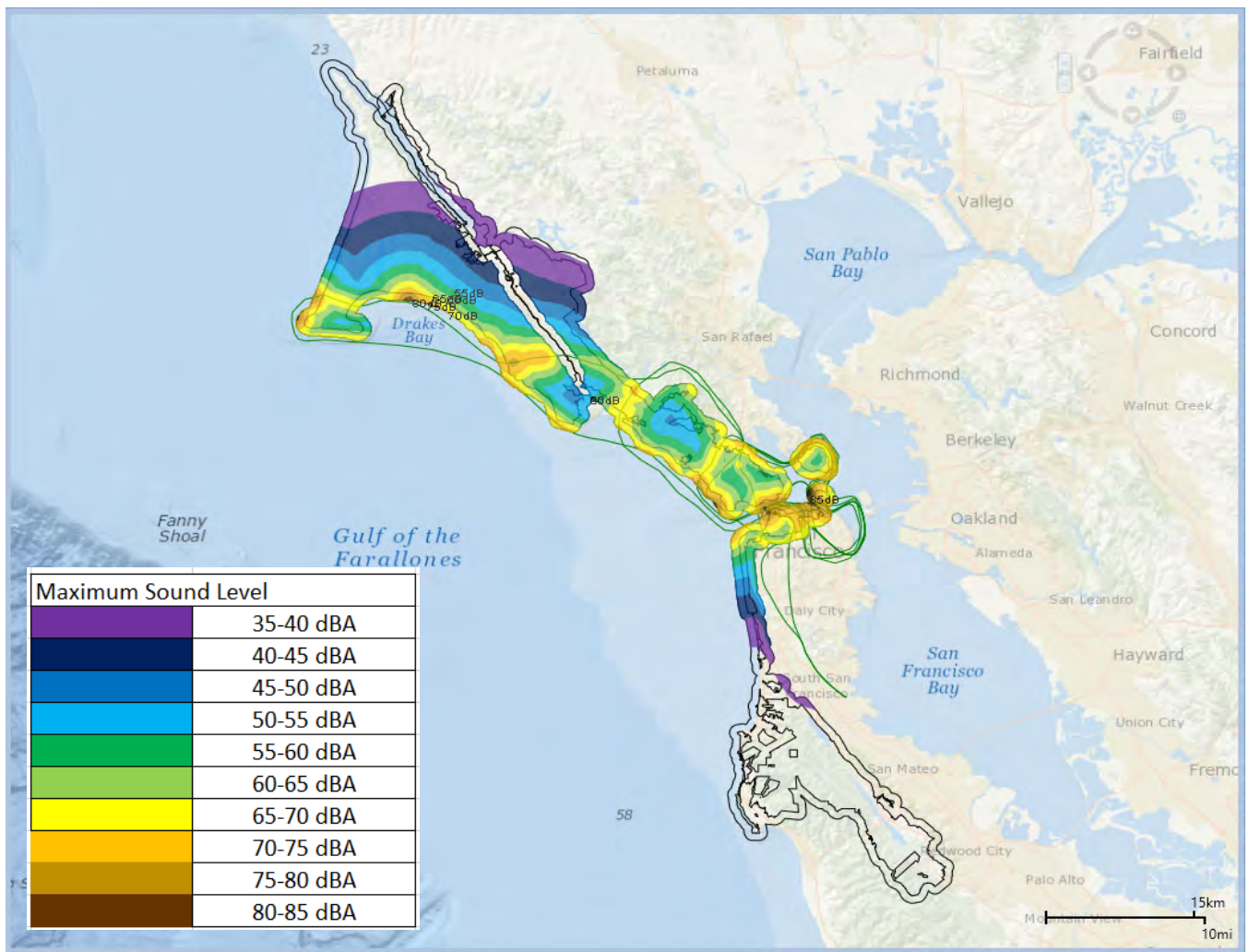


Figure 4. Noise contour results for L_{max}

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ENVIRONMENTAL SCREENING FORM (ESF)

PROJECT INFORMATION

Project Title: Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan

PEPC Project Number: 103175

Project Type: Categorical Exclusion

Project Location: San Francisco County and Marin County, California

PROJECT DESCRIPTION

The proposed action is to implement an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore. The “Project Description” section of the Categorical Exclusion (CE) Form for the ATMP sets out the elements of the ATMP and is incorporated herein by reference.

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. Though the ATMP covers four parks, this ESF analyzes the impacts to Muir Woods National Monument (Park) from the implementation of the ATMP. The ATMP does not authorize any commercial air tours over the Park.

RESOURCE IMPACTS TO CONSIDER

Definition of Effects or Impacts (40 C.F.R. § 1508.1(g))

Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct effects, indirect effects, and cumulative effects. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.

For the purposes of considering environmental impacts, the NPS evaluated the change to the human environment resulting from implementation of the ATMP. Consistent with Council on Environmental Quality regulations, the baseline from which to measure environmental impacts of the ATMP is the current condition of the human environment. In this case, the baseline is the current condition of Park resources and values, as impacted by zero commercial air tours per year (existing three-year average of tours conducted on an annual basis from 2017-2019) along with other planned actions and trends. The baseline also includes the route and altitude information of commercial air tours provided by the operators, as well as the timing and daily commercial air tour information from commercial air tour reports provided by the operators from 2017-2019.

Existing Conditions of Commercial Air Tours over the Park and Summary of the ATMP as applied to the Park

Two commercial air tour operators, San Francisco Helicopters, LLC and San Francisco Seaplane Tours, Inc., currently hold Interim Operating Authority (IOA) for a total of 5,090 flights over the Park each year. Though one of the operators had reported air tours over the Park from 2013 to 2017, the agencies determined that reporting was in error and that the operator had not conducted any air tours over the Park. The agencies have since corrected that error. No air tours have been reported over the Park from 2018 to 2021. The three-year average of air tours conducted over the Park based on reporting data from 2017-2019 is zero commercial air tours each year.¹ The ATMP does not authorize any commercial air tours over the Park which maintains the current level of air tour activity, zero tours per year, based on operator reporting.

Evaluation of the ATMP

Table 1. Potential Issues and Impacts to Resources

Resource	Potential Issues & Impacts
Air Air Quality	The ATMP does not authorize any commercial air tours over the Park. Therefore, the ATMP will not impact local air quality and will not have regional impacts.
Biological Species of Special Concern or Their Habitat	The ATMP does not authorize any commercial air tours over the Park. Therefore, the ATMP will result in no impact to the Park's threatened and endangered species or their habitat.
Biological Wildlife and/or Wildlife Habitat including terrestrial and aquatic species	The ATMP does not authorize any commercial air tours over the Park. Therefore, the ATMP will result in no impact to the Park's wildlife or their habitat.
Cultural Cultural Landscapes	<p>The NPS defines a Cultural Landscape as: a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general kinds of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (NPS, 2002).</p> <p>An impact to a cultural landscape will occur if the project alters any of the characteristics that help make the cultural landscape eligible for listing in the National Register of Historic Places (NRHP). This includes any diminishment of the cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. The potential impacts to cultural landscapes from the ATMP are limited to the continuation of visual and audible elements that diminish the integrity of the landscape setting and/or feeling.</p>

¹ Air tours reported for Muir Woods National Monument in 2017 were due to reporting errors by one of the operators. The NPS and the FAA worked with the operator to correctly identify the parks when reporting air tours. The operator started correctly reporting air tour activity over the Bay Area parks starting in 2018. See: https://www.nps.gov/subjects/sound/upload/NRSS_NRR_2017_Air_Tour_Report_Final508.pdf and National Park Service, [Reporting Information for Commercial Air Tour Operations over Units of the National Park System, 2018 Annual Report \(nps.gov\)](https://www.nps.gov/subjects/sound/upload/NRSS_NRR_2017_Air_Tour_Report_Final508.pdf)

	<p>The ATMP does not authorize any commercial air tours over the Park. Therefore, no impacts on cultural landscapes are anticipated.</p> <p>The Federal Aviation Administration (FAA), in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including cultural landscapes. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding. See CE Form for further information.</p>
Cultural Ethnographic Resources	<p>The NPS defines Ethnographic Resources as: a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS, 2002). Ethnographic resources include Traditional Cultural Properties (TCPs) (NPS, 1992).</p> <p>An impact to an Ethnographic Resource will occur if the project affects those elements of the resources that make it significant to the group traditionally associated with the resource, or if the project interferes with the use of the resource by the associated groups.</p> <p>The Federated Indians of Graton Rancheria, California, attach religious or cultural significance to areas within and adjacent to the Park. Because the ATMP does not authorize any commercial air tours over the Park, no impacts on ethnographic resources are anticipated.</p> <p>The FAA, in coordination with the NPS, consulted with the tribe listed above on the potential impacts of the ATMP on Ethnographic Resources, through compliance with Section 106 of the National Historic Preservation Act. That consultation led to a finding that the ATMP will have no adverse effect on historic properties, which includes Ethnographic Resources. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Cultural Prehistoric/historic structures	<p>Cultural resources within the Park include a number of archaeological sites and historic structures. As noted above, impacts to these resources will occur if the ATMP alters the characteristics of an archaeological site or historic structure that make it eligible for NRHP listing. Commercial air tours, by their nature, have the potential to impact resources for which only feeling and setting are the contributing elements. Because the ATMP does not authorize any commercial air tours over the Park, no impacts on historic properties, including prehistoric/historic structures are anticipated.</p> <p>The FAA, in coordination with the NPS, consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the ATMP on Historic Properties, including Cultural; prehistoric/historic structures. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding.</p>
Lightscapes Lightscapes	<p>Because the ATMP does not authorize any commercial air tours over the Park, no impacts on the Park's lightscapes are anticipated.</p>

Other Human Health and Safety	Commercial air tours are subject to the FAA regulations for protecting individuals and property on the ground, and preventing collisions between aircraft, land or water vehicles, and airborne objects. The operators must continue to meet the FAA safety regulations.
Socioeconomic Minority and low-income populations, size, migration patterns, etc.	U.S. Census data (United States Census Bureau, 2021) for census blocks surrounding the Park was reviewed to determine the presence of minority or low-income populations immediately outside and within ½-mile of the Park boundary. Based on this review, no minority or low-income populations were identified in Marin County. Therefore, the ATMP will not have a disproportionate impact on low-income or minority populations.
Socioeconomic Socioeconomic	Commercial air tours generate income for the operator as well as other ancillary visitor industry businesses. Visitors from outside the immediate area contribute to this income. Because the number of commercial air tours authorized under the ATMP is the same as the average number of flights from 2017-2019 (zero air tours), the NPS does not expect visitor spending on commercial air tours or economic activity in the local communities to change.
Soundscapes Acoustic Environment	<p>Baseline acoustic conditions in the Park were measured in 2007 and 2008 (NPS, 2013). The existing ambient daytime sound level was reported to be 25-55 decibels, while the natural ambient daytime sound level was reported to be 25-50 decibels. The existing ambient condition includes all sound associated with a given environment, i.e., natural, human, and mechanical sounds, such as automobiles and aircraft. Aircraft sound measured at a sampling location may include general aviation, commercial jets, military, and air tours. The natural ambient is the sound conditions found in a study area, including all sounds of nature (i.e., wind, water, wildlife, etc.) and excluding all human and mechanical sounds. Both the existing and natural ambient conditions were considered in the resource impacts analysis.</p> <p>Depending on a receiver's location on the ground in relation to an aircraft flying overheard, aircraft sound can range from faint and infrequent to loud and intrusive. Impacts of aircraft noise range from masking quieter sounds of nature such as bird vocalizations to noise loud enough to interrupt conversational speech between visitors. To capture how noise may affect quieter natural sounds or conversations, the resource impacts analysis below examines the time above 35 decibels (for quieter natural sounds and impacts to natural resources) and time above 52 decibels for conversational speech disturbance and impacts to visitor experience.</p> <p>Overall, noise impacts associated with commercial air tours are not expected to measurably change, since the ATMP, authorizes the average number of flights per year from 2017-2019 for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore and does not authorize any commercial air tours over Muir Woods National Monument. Furthermore, the ATMP requires commercial air tours maintain the same or increased altitudes flown under existing operations over the adjoining Golden Gate National Recreation Area. Therefore, the ATMP will result in minimal or only beneficial changes to the soundscape or acoustic environment at the Park compared to current conditions.</p> <p>For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under the National Environmental Policy Act (NEPA), the</p>

	FAA noise evaluation is based on Yearly Day Night Average Sound Level (DNL) ² ; the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for NEPA. Refer to the <i>Noise Technical Analysis</i> below.
Viewsheds Viewsheds	Since the ATMP does not authorize any commercial air tours over the Park which is consistent with the average number of flights from 2017-2019 (zero air tours), the NPS does not anticipate any impacts on the Park’s viewsheds.
Visitor Use and Experience Recreation Resources	Because the ATMP does not authorize any commercial air tours over the Park, which is consistent with the average number of flights from 2017-2019 (zero air tours), the ATMP will not impact the Park’s recreation resources.
Visitor Use and Experience Visitor Use and Experience	Visitor points of interest include visitor centers and trails. Since the ATMP does not authorize any commercial air tours over the Park, which is consistent with the average number of flights from 2017-2019 (zero air tours), the ATMP will not impact the Park’s visitor use or visitor experience.
Wilderness Wilderness	There is no wilderness present within the Park. Therefore, the ATMP will not impact wilderness in the Park.
Cumulative Effects	<p>Many activities may contribute noise to the Park’s acoustic environment. Aviation activities such as commercial air tours above 5,000 ft. AGL, and overflights by high altitude jets or private aviation regardless of altitude are not subject to regulation under the National Parks Air Tour Management Act (NPATMA). All of these aviation activities currently contribute noise to the project area. Private and commercial passenger jet overflights associated with the nearby San Francisco International Airport are commonly flown over the Park. These flights may detract from the Park’s viewshed as well.</p> <p>The Park’s developed areas and roadways also contribute to ambient noise. Maintenance and other administrative activities may also contribute noise to the acoustic environment, but are generally temporary, irregular, and do not last more than a few hours. Intermittent construction activities may add noise to the Park’s acoustic environment, though generally those occur in already developed areas where noise is generally more acceptable and expected.</p> <p>The agencies have qualitatively considered the cumulative impacts of commercial air tours along with impacts from existing activities generally described above. Since the ATMP does not authorize any commercial air tours over the Park, no cumulative environmental impacts to the Park are likely to result from the ATMP.</p>
Indirect Effects	The ATMP applies to all commercial air tours over the Park, as well as over Golden Gate National Recreation Area, Point Reyes National Seashore, and San Francisco Maritime National Historical Park that are flown below 5,000 ft. AGL and within ½ mile outside the boundary of the four parks. Since the ATMP does not authorize any commercial air tours over the Park which is consistent with the existing conditions, and the same number of commercial air tours as the three-year average on

² As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low annual operational levels and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

	substantially the same routes at each of the three nearby parks covered by the ATMP, it is unlikely that the frequency and nature of these disturbances which occur outside of these parks or within ½ mile of their boundaries would result in a change from current condition. Therefore, the agencies consider indirect effects of the ATMP to be negligible. However, since the ATMP cannot regulate the flight path, altitude, duration, etc. of flights outside the ATMP boundary, the agencies are unable to require operators to fly in the manner in which they may currently fly under existing conditions, or to require operators to change any operational parameters (e.g., altitude or routes). However, the agencies are unaware of any reason operators would deviate from their current flight paths outside the ATMP boundary since routes have not changed.
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NOISE TECHNICAL ANALYSIS

Indicators of acoustic conditions

There are numerous ways to measure the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The metrics and acoustical terminology used for the ATMP are shown in Table 2.

Table 2. Primary metrics used for the noise analysis.

Metric	Relevance and citation
Time Above 35 dBA ³	The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA) In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (American National Standards Institute [ANSI], 2007); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA, 2002).
Time Above 52 dBA	The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA) This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility (Environmental Protection Agency, 1974).
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.
Day-night average sound level, L_{dn} (or DNL)	The logarithmic average of sound levels, in dBA, over a 24-hour day, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. Note: Both $L_{Aeq, 12\text{ hr}}$ and L_{dn} characterize:

³ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI, 1994). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI, 2001). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	<ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12hr}$ and 24-hours for L_{dn}) <p>If there are no nighttime events, then $L_{Aeq, 12hr}$ is arithmetically three dBA higher than L_{dn}.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe (Federal Aviation Administration, 2015).</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.

ATMP as related to indicators

The potential impacts of commercial air tours were analyzed jointly across Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks). In order to provide a conservative evaluation of potential noise effects produced by commercial air tours under the ATMP, the CE analysis is based on a representation of a peak day⁴ of commercial air tour activity. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity over the Parks. For the Parks, the 90th percentile day was identified as the following (note that none of these commercial air tour routes are authorized over Muir Woods National Monument or its ½-mile buffer):

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

Noise contours for the following acoustic indicators were developed using the FAA's Aviation Environmental Design Tool (AEDT) version 3d and are presented below. A noise contour presents a graphical illustration or "footprint" of the area potentially affected by the noise.

- Time above 35 dBA (minutes) – see Figure 1
- Time above 52 dBA (minutes) – see Figure 2
- Equivalent sound level, $L_{Aeq, 12hr}$ – see Figure 3
 - Note: Contours are not presented for L_{dn} (or DNL) as it is arithmetically three dBA lower than $L_{Aeq, 12hr}$ if there are no nighttime events, which is the case for the ATMP modeled at Muir Woods National Monument.

⁴ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low annual operational levels and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions.

- Maximum sound level or L_{max} – see Figure 4

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis*. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are not authorized) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a brief increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

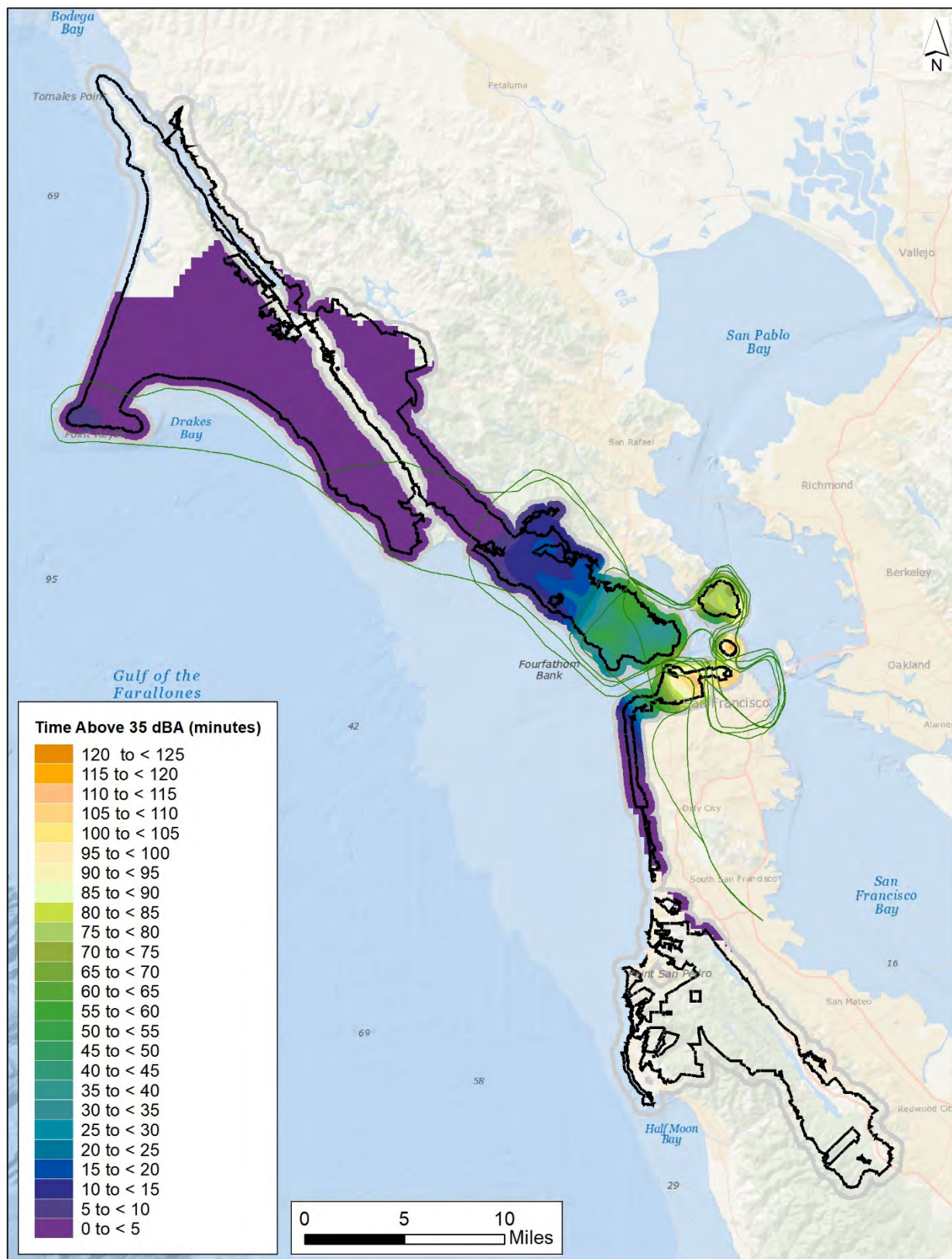


Figure 1. Noise contour results for Time Above 35 dBA

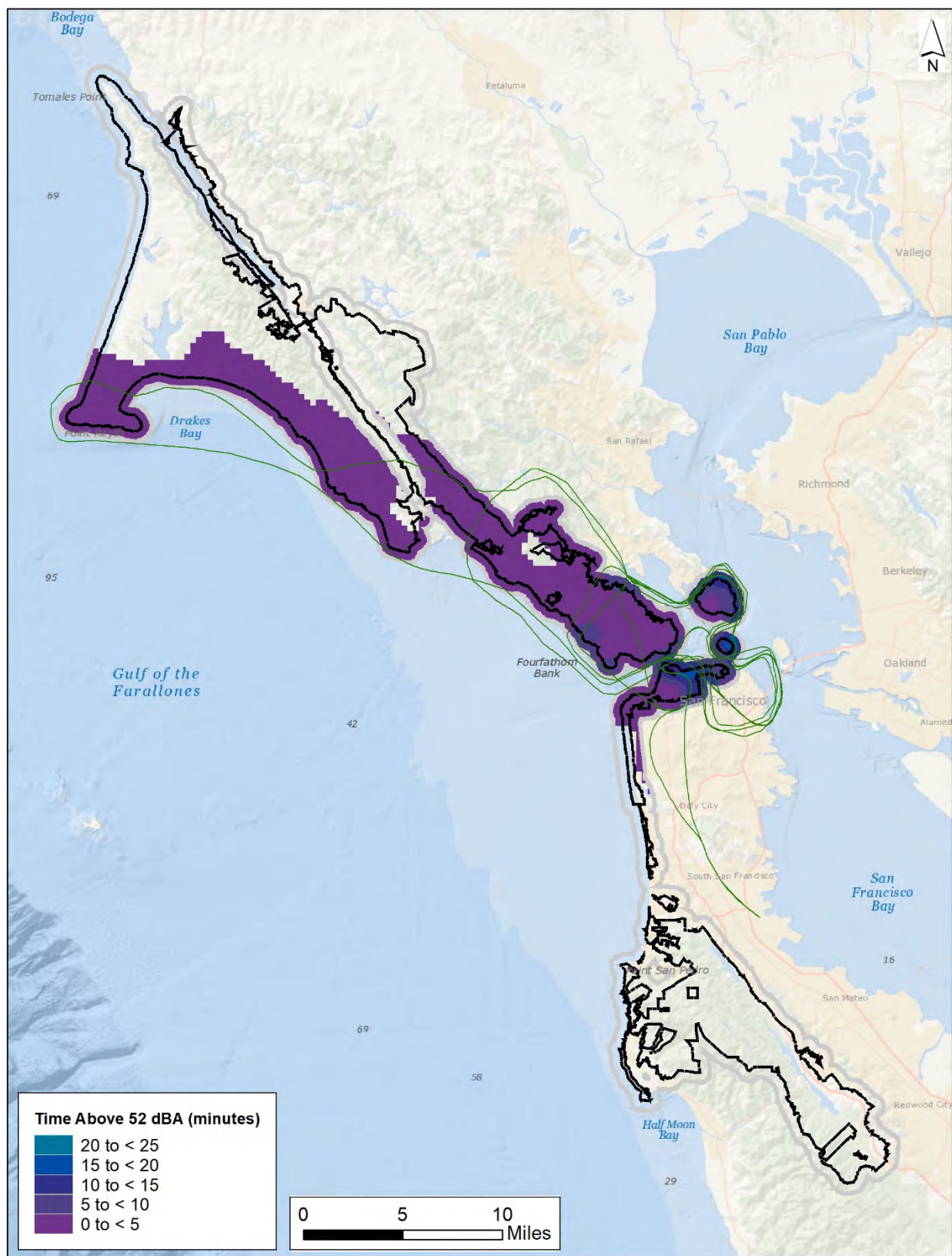


Figure 2. Noise contour results for Time Above 52 dBA

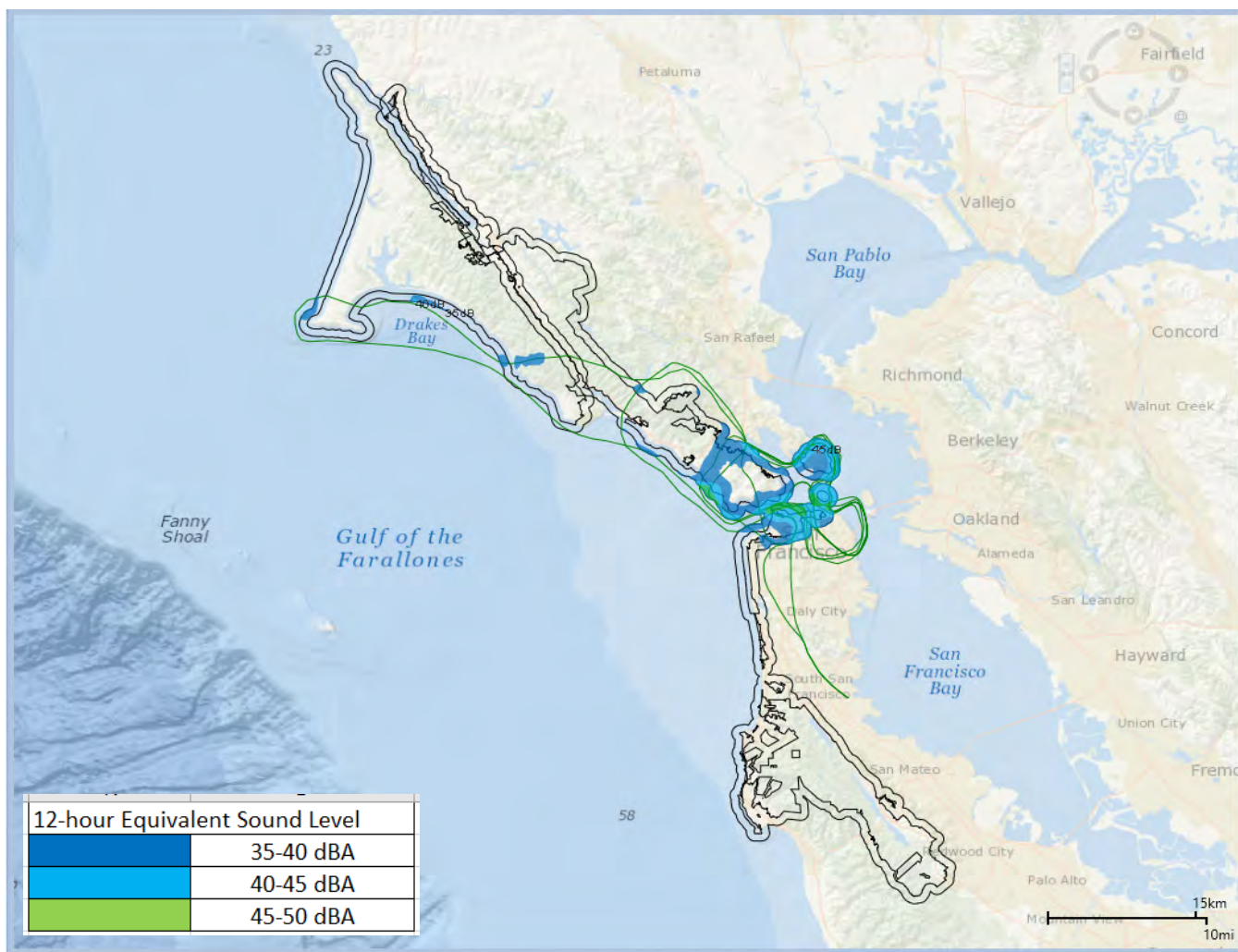


Figure 3. Noise contour results for $L_{Aeq, 12hr}$

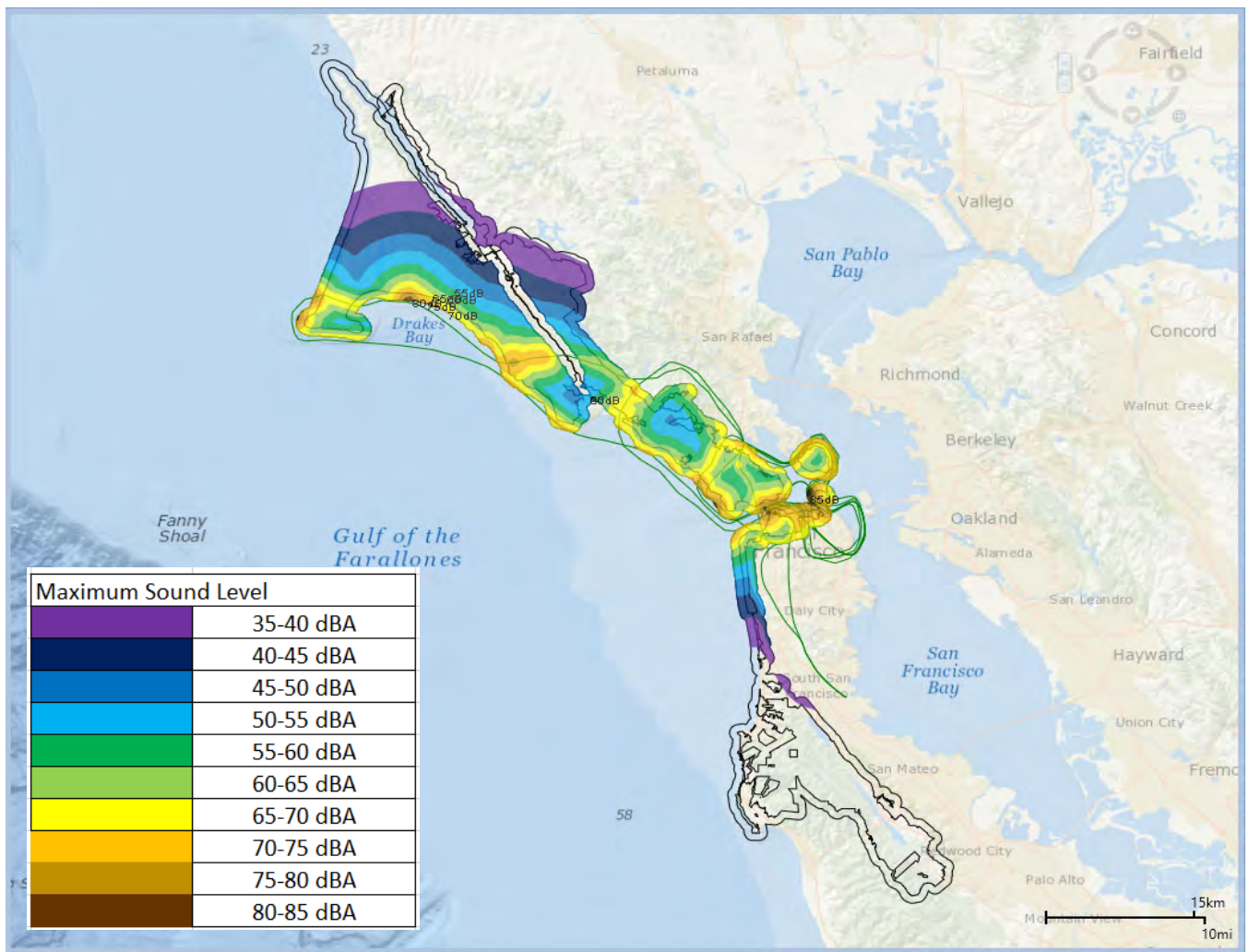


Figure 4. Noise contour results for L_{\max}

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APPENDIX C

Categorical Exclusion Documentation Form



Categorical Exclusion Documentation Form (CE Form)

PROJECT INFORMATION

Project Title: Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan

PEPC Project Number: 103175

Project Type: Categorical Exclusion

Project Location: San Francisco County and Marin County, California

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single Air Tour Management Plan (ATMP) covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. Therefore, the description of the proposed action below reflects the implementation of a single ATMP for all four parks, although certain elements of the ATMP, may not be equally applicable to all of the parks.

PROJECT DESCRIPTION

The proposed action is to implement an ATMP for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The ATMP does not authorize any commercial air tours over Muir Woods National Monument. The ATMP includes the following operating parameters to mitigate impacts from commercial air tours on the Parks' resources. For a full discussion of the impacts of commercial air tours and how these operating parameters will maintain or reduce impacts to Park resources, see the *Environmental Screening Forms (ESF)* completed for each of the Parks.

Commercial Air Tours Authorized

Under the ATMP 2,548 commercial air tours per year are authorized. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. Table 1 identifies the operators authorized to conduct commercial air tours and annual flight allocations.

Table 1. Commercial Air Tour Operations and Aircraft Type by Operator

Commercial Air Tour Operator	Annual Operations	Daily Operations	Aircraft Type
San Francisco Helicopters, LLC	For routes that fly over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: 1,280	No set limit	BHT-407-407, BHT-427-427
San Francisco Seaplane Tours, Inc.	For routes that fly over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: 1,125 For the route that flies over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore: 143	Golden Gate National Recreation Area and San Francisco Maritime National Historical Park: No set limit Point Reyes National Seashore: 1 tour per day on Standard Days, with 5 Flex Days per year on which 2 tours per day may be conducted.	DHC-2-MKI

Commercial Air Tours Routes and Altitudes

Commercial air tours authorized under the ATMP shall be conducted on the routes and altitudes in Figures 1 through 4 below for each operator and aircraft type. Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft. Due to the location and proximity of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park (the two parks share a boundary), all air tour routes authorized by the ATMP fly over both parks. The only authorized air tour route that flies over Point Reyes National Seashore also flies over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

All commercial air tours must maintain a 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. The routes described below and depicted in Figures 1-4 maintain these avoidance distances of currently known nesting waterbird colonies, peregrine falcon nests and marine mammal haul outs. All commercial air tours must also maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island and a minimum altitude of 1,500 ft AGL within the ATMP boundary around Alcatraz Island.

Air tours conducted with fixed-wing aircraft will fly no lower than 1,000 to 2,500 feet (ft.) AGL, depending on location as depicted in Figures 1, 3, and 4, but will fly no lower than 2,000 ft. AGL over land-based wilderness in Point Reyes National Seashore (Figures 1 and 4). Air tours conducted via fixed-wing aircraft are restricted to three routes.

- **Blue Route:** Air tours conducted via the Blue Route will enter the ATMP boundary at the location shown by flight procedure callout #1 in Figures 1, 3, and 4, at a minimum altitude 2,500 ft. AGL. Aircraft must maintain this altitude until they reach the location identified by flight procedure callout #2 in Figures 1, 3, and 4, at which time they may begin descent to 1,500 ft. AGL. Aircraft will maintain 1,500 ft. AGL when flying over the area within the ATMP boundary for the remainder of the air tour, except that they may fly at 1,000 ft. AGL over the area within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island.
- **Red Route:** Air tours conducted via the Red Route will enter the ATMP boundary at the location shown by flight procedure callout #3 in Figures 1, 3, and 4, at a minimum altitude of 2,500 ft. AGL at the entrance to the ATMP boundary. Aircraft must maintain 2,500 ft. AGL over Bolinas Ridge and Inverness

Ridge, depicted as flight procedure callout #4 in Figures 1 and 4. Air tours begin descent to 1,500 ft. AGL at the location identified by flight procedure callout #5 in Figures 1 and 4. Air tours then exit the ATMP boundary as depicted in Figures 1 and 4 and reenter the ATMP boundary at the location shown by flight procedure callout #6, and must maintain a minimum altitude of 1,500 ft. AGL. Air tours must laterally avoid Ranch Core Area B by flying 1,000 ft. to the north of this area as depicted in Figures 1 and 4. Air tours exit the ATMP boundary at the location identified by flight procedure callout #7 in Figures 1 and 4 at a minimum altitude of 1,500 ft. AGL. Air tours on the Red Route must remain outside the ATMP boundary until they reach the location identified by flight procedure callout #9 in Figures 1 and 4. Aircraft will maintain 1,500 ft. AGL when flying over the area within the ATMP boundary for the remainder of the air tour, except that they may fly at 1,000 ft. AGL over the area within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least $\frac{3}{4}$ mile offshore from Double Point, a lateral avoidance of $\frac{1}{2}$ mile offshore from Duxbury Reef, and a lateral avoidance of at least 1,000 ft. from Alcatraz Island.

- Green Route: Air tours conducted via the Green Route will maintain a minimum altitude of 1,500 ft. AGL within the ATMP boundary, except that they may fly at 1,000 ft. AGL within the ATMP boundary around Angel Island State Park. Aircraft must maintain a lateral avoidance of at least 1,000 ft. from Alcatraz Island.

Eight routes are authorized for helicopter tours over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park as depicted in Figure 2 below. Air tours conducted with helicopters will fly no lower than 1,000 to 1,500 ft. AGL, depending on location, as depicted in Figure 2. Commercial air tours on these routes must maintain a minimum altitude of 1,000 ft. AGL, except that a minimum altitude of 1,500 ft. AGL is required when flying over the area within the ATMP boundary around Alcatraz Island and while flying over lands within the boundary of Golden Gate National Recreation Area in Marin County. Commercial air tours must also maintain a lateral avoidance at least 1,000 ft. from Alcatraz Island.

Except when necessary for takeoff or landing, or in an emergency or to avoid unsafe conditions, or unless otherwise authorized for a specified purpose, operators may not deviate from these designated routes and altitudes.

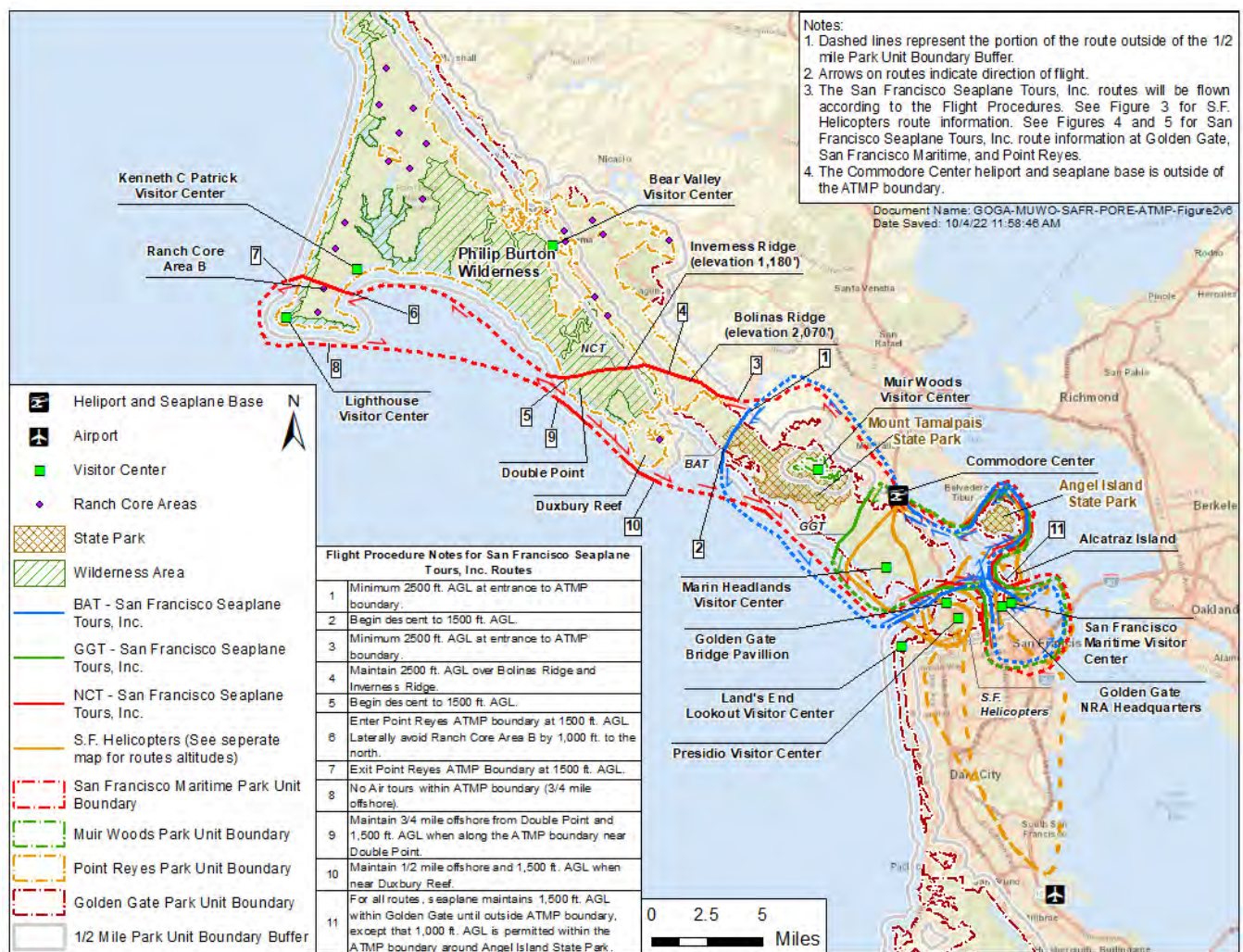


Figure 1. All commercial air tour routes over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

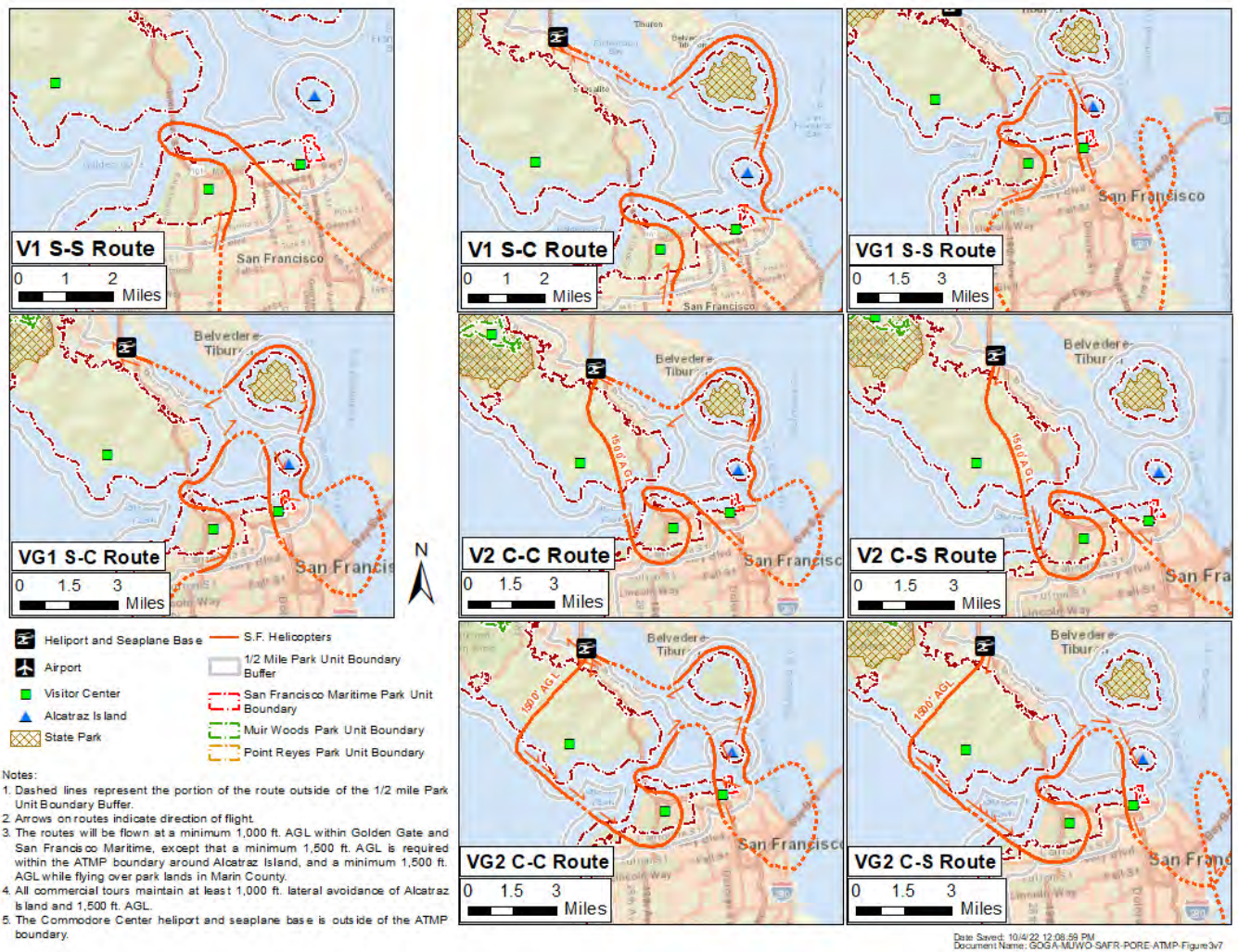


Figure 2. Commercial air tour routes for helicopters over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

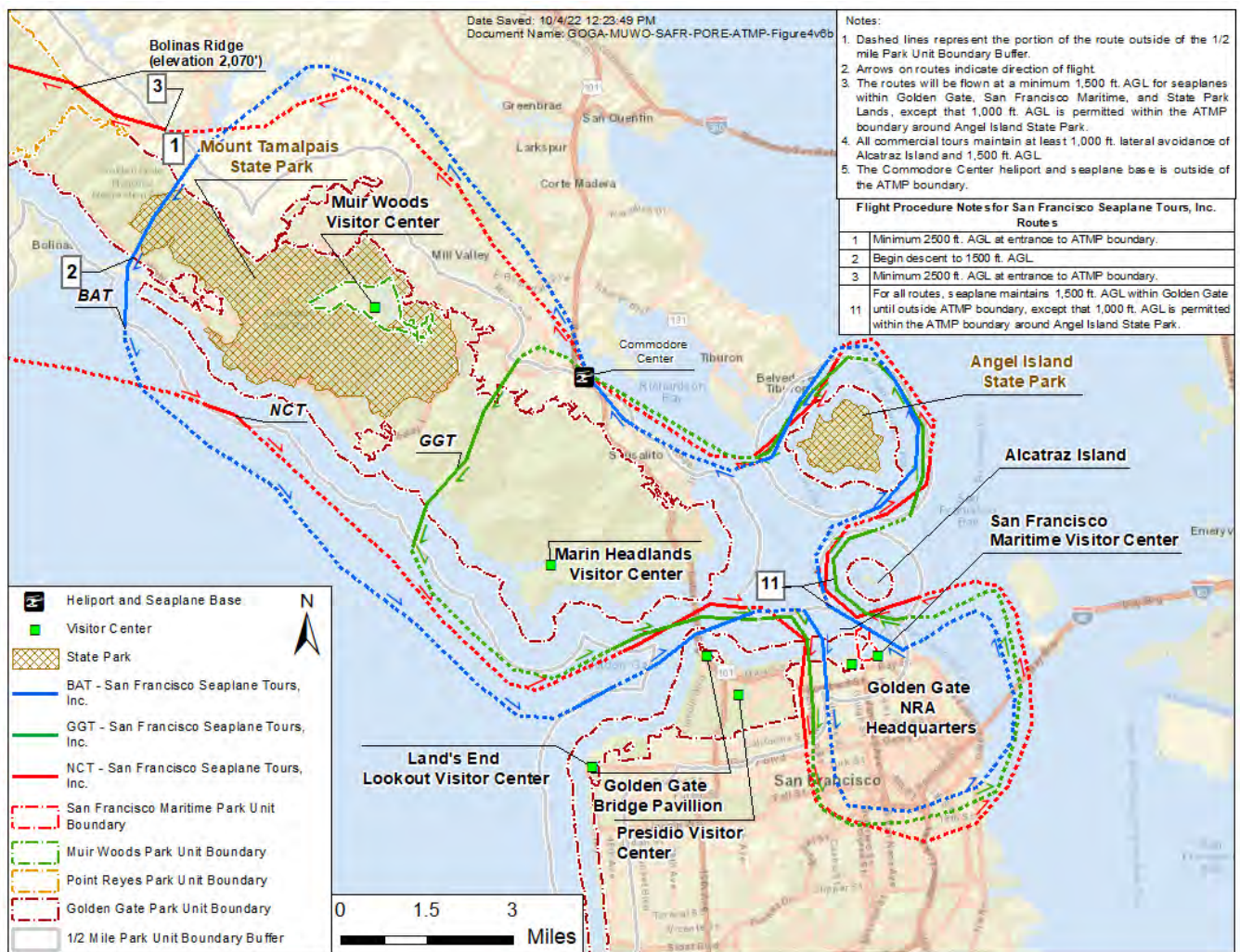


Figure 3. Commercial air tour routes for fixed-wing aircraft over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

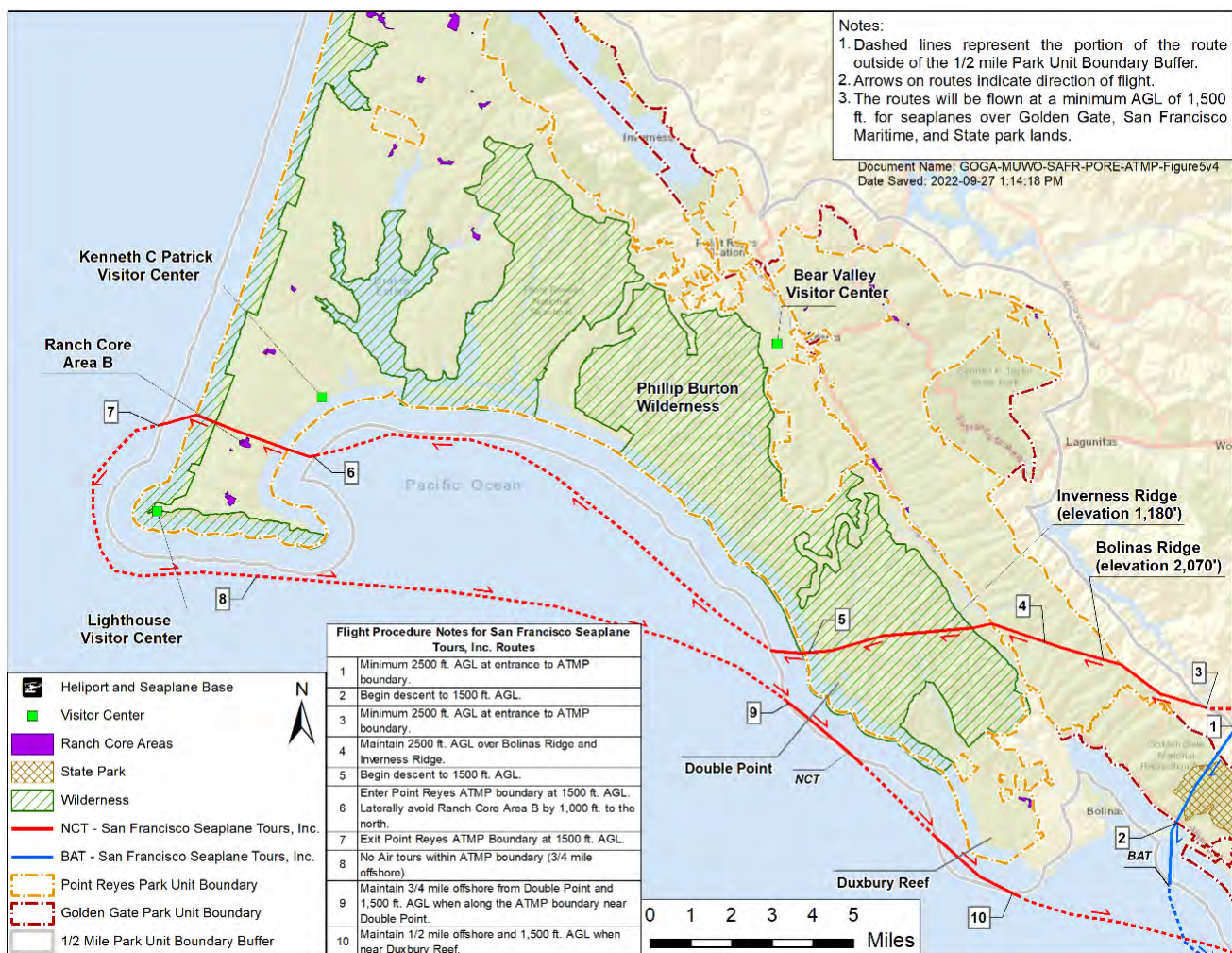


Figure 4. Commercial air tour route over Point Reyes National Seashore

Aircraft Type

The aircraft types authorized to be used for commercial air tours are identified in Table 1. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced. In addition to any other applicable notification requirements, operators will notify the Federal Aviation Administration (FAA) and the NPS in writing of any prospective new or replacement aircraft and obtain concurrence before initiating air tours with the new or replacement aircraft.

Day/Time

Except as provided in the section below entitled “Quiet Technology Incentives,” air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park may operate from 9:00 AM until 30 minutes after sunset, as defined by the National Oceanic and Atmospheric Administration (NOAA)¹. Air tours of Point Reyes National Seashore may operate from 12:00 PM to 5:00 PM. Air tours may operate any day of the year, except under circumstances provided in the section below entitled “Restrictions for Particular Events.”

Restrictions for Particular Events

The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management. Absent exigent circumstances or emergency operations, the NPS will provide a minimum of 15

¹ Sunrise and sunset data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

days written notice to the operator for any restrictions that temporarily restrict certain areas or certain times of day, or 60 days written notice to the operator for any full day restrictions. Events may include tribal ceremonies or other similar events.

Quiet Technology Incentives

The ATMP incentivizes the use of quiet technology aircraft by commercial air tour operators conducting commercial air tours over the Parks. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft, may request to be allowed to conduct air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park beginning one hour after sunrise, as defined by NOAA, on all days that flights are authorized,² and the operator with allocations for Point Reyes National Seashore may request to conduct tours of Point Reyes National Seashore beginning at 11:00 AM on all days that flights are authorized. Because aviation technology continues to evolve and advance and the FAA updates its noise certification standards periodically, the aircraft eligible for this incentive will be analyzed on a case-by-case basis at the time of the operator's request to be considered for this incentive. The NPS will periodically monitor conditions of the Parks and coordinate with the FAA to assess the effectiveness of this incentive. If implementation of this incentive results in unanticipated effects on the Parks' resources or visitor experience, further agency action may be required to ensure the protection of the Parks' resources and visitor experience.

Additional ATMP Parameters

- *Bird Aircraft Strike Reporting* – Operators will report all bird strikes that occur during commercial air tours within the ATMP boundary per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes, using OMB approved form No. 2120-0045, and include these reports in the semi-annual reports required by section 3.6A of the ATMP.
Daily Air Tour Allocations – The ATMP includes restrictions on the number of air tours that may be conducted each day on the route authorized over Point Reyes National Seashore (Red Route). On Standard Days, one commercial air tour may be conducted per day. Up to five Flex Days are permitted per year on which two commercial air tours may be conducted per day. These restrictions are also identified in Table 1.
- *Hovering* – Aircraft hovering in place is prohibited.

The following elements of the ATMP are not anticipated to have any environmental effects:

- *Required Reporting* – The operators are required to submit to the FAA and the NPS semi-annual reports regarding the number of commercial air tours conducted within the ATMP boundary. These reports will also include flight monitoring data.
- *Compliance* – The NPS and the FAA are both responsible for the monitoring and oversight of the ATMP. To ensure compliance, operators are required to equip all aircraft used for air tours with flight monitoring technology, use flight monitoring technology during all air tours under the ATMP, and to report flight monitoring data as an attachment to the operators' semi-annual reports.
- *Operator Training and Education* – When made available by park staff, the operators/pilots will take at least one training course per year conducted by the NPS.
- *Annual Meeting* – For the first five years after the signing of the ATMP, the park staff, the local FAA Flight Standards District Office (FSDO), and the operators will meet once per year to discuss the implementation of the ATMP and any amendments or other changes to the ATMP. Thereafter, this annual meeting will occur if requested by either of the agencies.
- *In-Flight Communication* – For situational awareness when conducting tours over the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Sunrise data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

- *Non-transferability of Allocations* – Annual operations under the ATMP are non-transferable.

CE Citation

NPS NEPA Handbook 3.3 A1 (516 DM 12): Changes or amendments to an approved action when such changes will cause no or only minimal environmental impact.

CE Justification

In 2000, Congress passed the National Parks Air Tour Management Act (NPATMA). NPATMA required operators who wish to conduct commercial air tours over national parks to apply to the FAA for authority to conduct such tours. NPATMA provided for existing commercial air tour operations occurring at the time the law was enacted to continue until an ATMP was implemented by expressly requiring the FAA to grant interim operating authority (IOA) to existing operators, authorizing them to conduct, on an annual basis, “the greater of (i) the number of flights used by the operator to provide the commercial air tour operations within the 12-month period prior to the date of the enactment of the act, or (ii) the average number of flights per 12-month period used by the operator to provide such operations within the 36-month period prior to such date of enactment, and, for seasonal operations, the number of flights so used during the season or seasons covered by that 12-month period.”³ Under NPATMA, the FAA was required to grant IOA for commercial air tours over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore.⁴ IOA does not provide any operating conditions (e.g., route, altitudes, time of day, etc.) for commercial air tours other than an annual limit. In 2012, NPATMA was amended, requiring commercial air tour operators to report actual commercial air tours to the FAA and the NPS. IOA granted by the FAA consistent with NPATMA is the approved action for purposes of the CE, as it is a non-discretionary authorization directed by Congress.

Under existing conditions, IOA allows operators to conduct up to 5,090 flights per year over each of the Parks, and does not include restrictions on routes, altitudes, time of day, or include restrictions for special events. Two commercial air tour operators, San Francisco Helicopters, LLC and San Francisco Seaplane Tours, Inc., hold IOA to conduct a combined total of 5,090 commercial air tours over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore, or within ½ mile of each park’s boundary each year. San Francisco Helicopters, LLC holds IOA for 2,900 commercial air tours each year over each of the four parks, and San Francisco Seaplane Tours, Inc. holds IOA for 2,190 commercial air tours each year over each of the four parks. Based on the three-year average of reporting data from 2017-2019, San Francisco Helicopters, LLC conducts an average of 1,280 commercial air tours over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park each year, and San Francisco Seaplane Tours, Inc. conducts an average of 1,268 commercial air tours over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park each year.⁵ The operators conduct an average of zero commercial air tours each year over Muir Woods National Monument. San Francisco Seaplane Tours, Inc. conducts an average of 143 total commercial air tours each year over Point Reyes National Seashore. San Francisco Helicopters, LLC has not reported flying commercial air tours at Point Reyes National Seashore since 2013, including a total of zero flights from 2017 to 2019. *See Tables 2-4, Reported Commercial Air Tours from 2013-2020.* Reporting data from 2013 and 2014 are considered incomplete as reporting protocols were not fully in place at that time and likely do not reflect actual flights. The agencies consider the 2017-2019, three-year average, which is 2,548 commercial air tours at Golden Gate National Recreation Area and San

³ 49 U.S.C. § 40128(c)(2)(A)(i-ii).

⁴ *Id.*

⁵ Due to inconsistencies in commercial air tour reporting over San Francisco Maritime National Historical Park, the three-year average of reporting data from 2017-2019 for Golden Gate National Recreation Area is being used for San Francisco Maritime National Historical Park since San Francisco Maritime National Historical Park shares a boundary with Golden Gate National Recreation Area and commercial air tour routes that pass over Golden Gate National Recreation Area also pass over or within ½-mile of San Francisco Maritime National Historical Park.

San Francisco Maritime National Historical Park, 0 commercial air tours at Muir Woods National Monument, and 143 commercial air tours at Point Reyes National Seashore, the existing operations for the purposes of understanding both the existing number of commercial air tour flights at each of the Parks and impacts from that activity. Flight numbers from a single year were not chosen as the existing condition because the three-year average accounts for both variation across years and takes into account the most recent years prior to the COVID-19 pandemic. The 2020 COVID-19 pandemic generally resulted in atypical commercial air tour operations, which does not represent the conditions in a typical year. The agencies also decided against using 2021 data due to continued abnormalities associated with the COVID-19 pandemic and the unavailability of reporting data for 2021 during most of the planning effort. Although the approved action (IOA) allows 5,090 flights annually over each of the four parks, the current condition of the Parks' resources and values reflects the impact of an average of 2,548 flights per year over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 flights per year over Muir Woods National Monument, and 143 flights per year over Point Reyes National Seashore. This represents existing commercial air tour operations. The ATMP sets a maximum of 2,548 flights annually over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park or within ½ mile of their boundaries, 0 flights annually over Muir Woods National Monument or within ½ mile of its boundary, and 143 flights annually at Point Reyes National Seashore or within ½ mile of its boundary.

The operators conduct commercial air tours on 11 different routes over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and one route over Point Reyes National Seashore. San Francisco Helicopters, LLC conducts commercial air tours using BHT-407-407 and BHT-427-427 aircraft (rotorcraft) at a minimum altitude of approximately 1,000 – 1,500 ft. AGL depending on location over Golden Gate National Recreation Area and within ½ mile of its boundary and approximately 1,000 ft. AGL over San Francisco Maritime National Historical Park within ½ mile of its boundary. San Francisco Seaplane Tours, Inc. conducts commercial air tours using DHC-2-MKI aircraft (fixed-wing) at a minimum altitude of approximately 1,000 – 2,500 ft. AGL depending on location over Golden Gate National Recreation Area or within ½ mile of its boundary, approximately 1,500 ft. AGL over San Francisco Maritime National Historical Park and within ½ mile of its boundary, and approximately 1,500 – 2,500 ft. AGL depending on location over Point Reyes National Seashore and within ½ mile of its boundary. Commercial air tours are typically conducted between the hours of 9:00 AM and 6:00 PM over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and between the hours of 12:00 PM and 5:00 PM over Point Reyes National Seashore and occur year-round. San Francisco Seaplane Tours, Inc. also offers a sunset tour over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

The ATMP limits the number of commercial air tours that the operators are authorized to conduct over the Parks to the three-year average of tours conducted on an annual basis from 2017-2019 (2,548 tours per year over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours per year over Muir Woods National Monument, and 143 tours per year over Point Reyes National Seashore). The ATMP restricts the number of commercial air tours that San Francisco Seaplane Tours, Inc. may conduct per day over Point Reyes National Seashore (up to one tour per day on Standard Days, up to two tours per day on Flex Days, and no more than five Flex Days per year). The ATMP designates routes that operators are required to follow when conducting air tours authorized by the ATMP. The operators will be allowed to conduct commercial air tours on the existing routes that the operators currently report flying over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and substantially the same route that the operator reports flying over Point Reyes National Seashore, with modifications including lateral and vertical offsets from areas important to noise sensitive species and other developed areas including Ranch Cores. The ATMP prohibits aircraft hovering in place.

The ATMP sets minimum altitudes for both helicopters and fixed-wing aircraft that, with certain exceptions, are generally consistent with the existing condition of air tours over Golden Gate National Recreation Area (a minimum altitude for helicopter tours of 1,000 – 1,500 ft. AGL, depending on location over the Park, and a

minimum altitude for fixed-wing tours of 1,500 – 2,500 ft. AGL depending on location over the Park with the exception of a minimum altitude of 1,000 ft. AGL near Angel Island), San Francisco Maritime National Historical Park (a minimum altitude of 1,000 ft. AGL for helicopters and a minimum altitude of 1,500 ft. AGL for fixed wing aircraft), and Point Reyes National Seashore (a general minimum altitude of 1,500 ft. AGL except that aircraft must maintain a minimum altitude of 2,000 ft. AGL when flying over land-based wilderness, and a minimum altitude of 2,500 ft. AGL when flying over Bolinas Ridge and Inverness Ridge). The minimum altitudes required by the ATMP differ from the existing condition of tours over Golden Gate National Recreation Area near Alcatraz (increased from approximately 1,000 ft. AGL to 1,500 ft. AGL for both fixed wing aircraft and helicopters). Except as provided by quiet technology incentives, the ATMP restricts the hours during which commercial air tours may be conducted over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, though these restrictions are generally consistent with existing conditions. Air tours over Golden Gate National Recreation Area and San Francisco Maritime are authorized beginning at 9:00 AM until 30 minutes after sunset. Air tours may be conducted over Point Reyes National Seashore, beginning at 12:00 PM until 5:00 PM. The ATMP allows the NPS to establish no-fly periods for special events or planned park management. The ATMP requires operators to report all bird strikes that occur during commercial air tours over the lands and waters covered by the ATMP per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes.

Table 2. Reported Commercial Air Tours from 2013-2020 over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

Operator	IOA	2013	2014	2015	2016	2017	2018	2019	2020 ⁶
San Francisco Helicopters, LLC	2,900	1,406	1,354	1,436	1,166	1,291	1,280	1,270	275
San Francisco Seaplane Tours, Inc.	2,190	514	649	836	1,084	1,297	1,270	1,236	302
Total	5,090	1,920	2,003	2,272	2,250	2,588	2,550	2,506	577

Table 3. Reported Commercial Air Tours from 2013-2020 over Point Reyes National Seashore

Operator	IOA	2013	2014	2015	2016	2017	2018	2019	2020 ⁷
San Francisco Helicopters, LLC	2,900	0	0	0	0	0	0	0	0
San Francisco Seaplane Tours, Inc.	2,190	11	54	82	83	124	151	154	55
Total	5,090	11	54	82	83	124	151	154	55

⁶ Based on unpublished reporting data.

Table 4. Reported Commercial Air Tours from 2013-2020 over Muir Woods National Monument

Operator	IOA	2013	2014	2015	2016	2017	2018	2019	2020 ⁷
San Francisco Helicopters, LLC	2,900	0	0	0	0	0	0	0	0
San Francisco Seaplane Tours, Inc.	2,190	514	595	754	1,001	1,173	0	0	0
Total	5,090	514	595	754	1,001	1,173*	0	0	0

*The agencies determined that all tours reported over Muir Woods National Monument or within ½-mile of its boundary were reported in error from 2013 - 2017. The agencies worked with the operator to resolve the reporting error. See:

https://www.nps.gov/subjects/sound/upload/NRSS_NRR_2017_Air_Tour_Report_Final508.pdf

Consistent with Council on Environmental Quality regulations, the baseline from which to measure environmental impacts of the ATMP is the current condition of the human environment. In this case, the baseline is the current condition of Park resources and values, as impacted by current commercial air tours flown under IOA: between 2,506 and 2,588 commercial air tours per year, or an average of 2,548 commercial air tours per year, for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park; between 124 and 154 flights per year, or an average of 143 commercial air tours per year, for Point Reyes National Seashore; and zero flights per year for Muir Woods National Monument. Though IOA does not set a minimum altitude or set designated routes, the baseline also includes the route and altitude information provided by the operators, as well as timing and daily air tour information during the years of 2017-2019 as reported by the operators. Environmental impacts or effects are changes to the human environment (natural and physical) from the ATMP.⁷ Because the ATMP is very similar to existing commercial air tour operations and includes new operating parameters designed to improve resource protections and visitor experience, impacts resulting from effects of the ATMP will result in no or only minimal environmental impacts. Under the ATMP, the number of commercial air tours may not increase without an amendment to the ATMP, guaranteeing no greater impacts to the environment will occur without subsequent review consistent with the National Environmental Policy Act (NEPA). An amendment would also be required for a change in the routes beyond that permitted by adaptive management or where the impacts have been already analyzed by the agencies. In addition, the inclusion of mitigating elements including altitude restrictions, time of day restrictions, and quiet aircraft technology incentives will further reduce the impacts of commercial air tours under the ATMP, which will lead to beneficial impacts to the environment compared to current conditions. The use of CE 3.3 A1 is appropriate because environmental impacts resulting from the ATMP will result in no or only minimal changes to the current condition of the Parks' resources and values and impacts will be beneficial compared to current conditions.

Even if impacts of the ATMP were measured against the total number of commercial air tours authorized under IOA for the Parks (though such a baseline does not reflect actual commercial air tours conducted over the Parks as demonstrated by reported data and is not, therefore, an accurate depiction of the current condition of the human environment) impacts compared to current conditions will be beneficial because the ATMP will set the maximum number of commercial air tours at a level much lower than the maximum number of commercial air tours authorized under IOA and includes mitigating elements noted above. Therefore, even if the analysis were approached from a baseline of IOA, the CE would still be an acceptable NEPA pathway since NEPA is primarily concerned with adverse impacts, not beneficial ones like those that will result from the ATMP. In conclusion, the use of this CE is justified because the changes to the approved action (IOA) from the implementation of the ATMP will result in no or only minimal environmental impacts. The use of the CE is consistent with NEPA.

⁷ See 40 C.F.R § 1508.1(g)

Golden Gate National Recreation Area and Muir Woods National Monument are jointly managed by the NPS. Furthermore, due to the close proximity and locations of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, all authorized commercial air tour routes in the ATMP fly over both parks. The only authorized commercial air tour route that flies over Point Reyes National Seashore also flies over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park. Thus, just as it was appropriate to include all four of the Parks in a single ATMP, it is appropriate to analyze the applicability of the CE with respect to all four Parks. However, a separate *ESF* was completed for each of the Parks. The potential impacts of those commercial air tours were analyzed individually for some resources, and jointly across all four Parks for some resources as noted in those resource evaluations in the relevant *ESF*.

Table 5. Extraordinary Circumstances

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	Commercial air tours are subject to the FAA regulations for protecting individuals and property on the ground, and preventing collisions between aircraft, land or water vehicles, and airborne objects. The operators must continue to meet the FAA safety regulations. Therefore, health and safety impacts will not be significant.
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	<p>As noted above, the ATMP authorizes the same number of commercial air tours per year as the average number flown on an annual basis from 2017-2019. Furthermore, the ATMP requires operators to fly on the same routes reported by operators over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park (with lateral offsets to protect park resources), and substantially the same route that the operator reports flying over Point Reyes National Seashore, with minor modifications to protect Park resources. The ATMP requires commercial air tour operators to fly at the same altitudes as compared to existing operations over San Francisco Maritime National Historical Park and Point Reyes Seashore, and at the same or increased altitudes as compared to existing operations depending on location over Golden Gate National Recreation Area. Therefore, there will be no or minimal change in the potential for impacts compared to current conditions. The route restrictions, minimum altitudes, and time of day restrictions further mitigate any potential adverse impacts and will ensure that no significant adverse environmental effects will occur and that impacts will be beneficial compared to current conditions.</p> <p>No air tours were reported over Muir Woods National Monument from 2017 – 2019, and the ATMP does not authorize commercial air tours over Muir Woods National Monument, which will mitigate any potential adverse impacts and will ensure that no significant adverse environmental effects will occur. Therefore,</p>

		<p>there will be no change in the potential for impacts compared to current conditions.</p> <p><i>See the ESF for each park for a full description of the impacts considered.</i></p>
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	<p>There are no highly controversial environmental effects. The ATMP does not authorize any commercial air tours over Muir Woods National Monument. As to Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, impacts from commercial air tours on park resources generally are understood from existing modeling and literature and can be accurately projected. Information and models used to assess impacts for commercial air tours, as discussed in the ESF, are consistent with peer reviewed literature.</p> <p>Additionally, there are no unresolved conflicts over available resources. This extraordinary circumstance applies to the use or consumption of resources in a way that prohibits another use of the same resource. Commercial air tours do not consume NPS resources. The impacts from tours affect resources but the resources remain present for others to enjoy or appreciate.</p>
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	<p>There are no highly uncertain impacts associated with the commercial air tours authorized by the ATMP. The significance of the environmental effects is to be measured by the change from current condition. As noted above, the ATMP authorizes the same number of flights per year as the average number flown from 2017-2019 over each of the four parks with no or minimal route changes as compared to existing operations. Therefore, there will be no or minimal impacts compared to current conditions. As also noted above, the route restrictions, minimum altitudes, and time of day restrictions applicable to commercial air tours over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore further mitigate any potential adverse impacts and will ensure that no significant adverse environmental effects will occur and that impacts will be beneficial compared to current conditions. The ATMP does not authorize any commercial air tours over Muir Woods National Monument. <i>See the ESF for each Park for more information.</i></p>
E. Establish a precedent for future action or represent a decision in principle about future	No	<p>The ATMP will not make any decisions in principle about future actions or set a precedent for future action.</p>

actions with potentially significant environmental effects?		The NPS and the FAA may choose to amend the ATMP at any time consistent with NPATMA.
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	<p>The FAA and the NPS qualitatively considered the cumulative impacts of the 2,548 commercial air tours authorized each year by the ATMP along with impacts from existing activities described in the <i>ESF</i>. In some cases, the noise contribution from other sources may be substantial, such as high-altitude jets, roadway traffic noise, or developed portions of the Parks. The addition of commercial air tour noise is such a small contribution of noise overall that it is unlikely they would result in noticeable or meaningful change in the overall acoustic environment. Commercial air tours over roadways are likely to be masked by existing noise and therefore the impacts would be de minimis. Finally, the ATMP does not add new noise to the existing acoustic environment and visual impacts associated with aircraft are most noticeable because of noise and have been found to be not significant. Therefore, when considering other sources of noise in the Parks that are likely to continue under the ATMP, the continued authorization of 2,548 commercial air tours per year will not result in a meaningful change to the current condition of the visual or auditory landscape at the Parks, and no significant cumulative environmental impacts are likely to result from the ATMP. <i>See</i> the <i>ESF</i> for each Park for more information.</p>
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	<p>As noted above, the ATMP authorizes the same number of flights per year as the average number flown from 2017-2019 at each of the four parks with no or minimal route changes as compared to existing operations. Therefore, there will be no or minimal change in the potential for impacts compared to current condition. At Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, the route restrictions, minimum altitudes, and time of day restrictions further mitigate any potential adverse impacts; and will ensure that no significant adverse environmental effects will occur and that impacts will be beneficial compared to current conditions.</p> <p>No air tours were reported over Muir Woods National Monument from 2017 – 2019, and the ATMP does not authorize commercial air tours over Muir Woods National Monument, which will mitigate any potential adverse impacts and will ensure that no significant adverse environmental effects will occur. Therefore, there will be no change in the potential for impacts compared to current conditions.</p>

		<p>The authorized number of commercial air tours is not anticipated to adversely affect properties listed on or eligible for listing on the National Register of Historic Places. The FAA, in coordination with the NPS, consulted with the State Historic Preservation Office, federally recognized tribes and other consulting parties to reach this determination pursuant to 36 CFR Part 800. The FAA subsequently concluded that under Section 106 of the National Historic Preservation Act, there will be no adverse effects to historic properties from this undertaking. The FAA proposed this finding to all consulting parties via letter dated August 30, 2022. The FAA did not receive any responses or objection to the finding.</p>
<p>H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?</p>	No	<p>As noted above, the ATMP authorizes the same number of flights per year as the average number flown from 2017-2019 at each of the four parks with no or minimal route changes as compared to existing operations. Therefore, there will be no or minimal change in the potential for impacts compared to current condition. At Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, the route restrictions, minimum altitudes, and time of day restrictions further mitigate any potential adverse impacts; and will ensure that no significant adverse environmental effects will occur and that impacts will be beneficial compared to current conditions.</p> <p>No air tours were reported over Muir Woods National Monument from 2017 – 2019, and the ATMP does not authorize commercial air tours over Muir Woods National Monument, which will mitigate any potential adverse impacts and will ensure that no significant adverse environmental effects will occur. Therefore, there will be no change in the potential for impacts compared to current conditions.</p> <p>After having informal discussions with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, the NPS has determined the ATMP will have <i>No Effect</i> on listed species. Therefore, there is no potential for significant impacts to any listed species associated with the commercial air tour activity proposed in the ATMP. <i>See</i> the ESF for each Park for more information.</p>
<p>I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?</p>	No	<p>The ATMP will comply with all applicable federal, state, local and tribal laws. <i>See</i> the ESF for each Park for more information.</p>

J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	The ATMP will not have a disproportionate effect on low income or minority populations. <i>See</i> the ESF for each Park for more information.
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	The ATMP will not limit access to, or change ceremonial use of Indian sacred sites on federal lands in any way. Sacred ceremonies or other tribal activities which occur without notice to the NPS may be interrupted by noise, however, commercial air tours have no effect on tribal access. Additionally, the ATMP does not involve any ground disturbing or other activities that would adversely affect the physical integrity of sacred sites. <i>See</i> the ESF for each Park for more information.
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	The ATMP does not involve any ground disturbance or other activities with the potential to contribute to the introduction, continued existence, spread, growth, or expansion of invasive or exotic species in Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, or Point Reyes National Seashore.

Decision

I find that the action fits within the categorical exclusion above with respect to Golden Gate National Recreation Area and Muir Woods National Monument. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

**CRAIG
KENKEL**

Digitally signed by CRAIG
KENKEL
Date: 2023.01.04 10:19:34
-08'00'

Craig Kenkel
Acting General Superintendent
Golden Gate National Recreation Area and
Muir Woods National Monument
National Park Service

Date

Decision

I find that the action fits within the categorical exclusion above with respect to San Francisco Maritime National Historical Park. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.



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DEPREY
Date: 2023.01.04 11:32:32
-08'00'

Paul DePrey
Superintendent
San Francisco Maritime National Historical
Park
National Park Service

Date

Decision

I find that the action fits within the categorical exclusion above with respect to Point Reyes National Seashore. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

**ANNE
ALTMAN**

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Date: 2023.01.04 09:45:19
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Anne Altman
Acting Superintendent
Point Reyes National Seashore
National Park Service

Date

APPENDIX D

FAA Categorical Exclusion Adoption



Federal Aviation Administration

Adoption of the Categorical Exclusion Determination by the National Park Service for the Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore Air Tour Management Plan.

The National Parks Air Tour Management Act (NPATMA) requires that all commercial air tour operators conducting or intending to conduct a commercial air tour operation over a unit of the National Park System apply to the Federal Aviation Administration (FAA) for authority to undertake such activity. 49 U.S.C. § 40128(a)(2)(A). NPATMA, as amended, further requires the FAA, in cooperation with the National Park Service (NPS), to establish an Air Tour Management Plan (ATMP) or voluntary agreement for each park that did not have such a plan or agreement in place at the time the applications were made, unless a park has been exempted otherwise from this requirement. 49 U.S.C. § 40128(b)(1)(A).

The FAA and the NPS are proposing to implement an ATMP covering Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore (Parks), in accordance with NPATMA, as amended, its implementing regulations (14 Code of Federal Regulations (CFR) Part 136), and all other applicable laws and policies. Considering their proximity, NPS management of the Parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four Parks was appropriate for future management of commercial air tours. This document memorializes the FAA's adoption of the NPS determination that its categorical exclusion (CATEX) covers the scope of its proposed action.

1. Regulatory Framework

The Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), 40 CFR Parts 1500-1508, require an agency wishing to apply a CATEX identified in its agency NEPA procedures to first make a determination that the CATEX covers the proposed action and to "evaluate the action for extraordinary circumstances in which a normally excluded action may have a significant effect." 40 CFR § 1501.4(b). If the agency determines that no extraordinary circumstances exist or that "there are circumstances that lessen the impacts or other conditions sufficient to avoid significant effects," the agency may categorically exclude the proposed action. 40 CFR § 1501.4(b)(1).

Section 1506.3(a) of the CEQ regulations authorizes agencies to adopt other agencies' NEPA documents under certain conditions, while section 1506.3(d) of the regulations applies specifically to the adoption of other agencies' CATEX determinations and reads as follows:

An agency may adopt another agency's determination that a categorical exclusion applies to a proposed action if the action covered by the original categorical exclusion determination and the adopting agency's proposed action are substantially the same. The agency shall document the adoption.

40 CFR § 1506.3(d). This document has been prepared to comply with that Regulation.

2. The NPS's Proposed Action

The NPS's proposed action is to implement an ATMP for the Parks. The ATMP includes operating parameters to mitigate impacts from commercial air tours on the Parks' resources, which are described in the NPS Categorical Exclusion Documentation Form attached to the Record of Decision (ROD) as Appendix C.

3. FAA's Proposed Action

Like the NPS, the FAA's Proposed Action is to implement the ATMP for the Parks subject to the operating parameters described in the NPS Categorical Exclusion Documentation Form (see Appendix C of the ROD). In addition, the FAA will update the operations specifications (OpSpecs) for the air tour operators to incorporate the terms and conditions of the ATMP accordingly.

4. Scope of Applicable CATEX and the NPS Extraordinary Circumstances Analysis

For its proposed action, the NPS has applied the Categorical Exclusion from the NPS NEPA Handbook 3.3 A1 (516 DM 12): "Changes or amendments to an approved action when such changes will cause no or only minimal environmental impact."

Per 40 CFR § 1501.4(b), an agency must first determine that the categorical exclusion identified in its agency NEPA procedures covers the proposed action. In this case, the NPS states as follows:

In 2000, Congress passed the National Parks Air Tour Management Act (NPATMA). NPATMA required operators who wish to conduct commercial air tours over national parks to apply to the FAA for authority to conduct such tours. NPATMA provided for existing commercial air tour operations occurring at the time the law was enacted to continue until an ATMP for the Park was implemented by expressly requiring the FAA to grant interim operating authority (IOA) to existing operators, authorizing them to conduct, on an annual basis, "the greater of (i) the number of flights used by the operator to provide the commercial air tour operations within the 12-month period prior to the date of the enactment of the act, or (ii) the average number of flights per 12-month period used by the operator to provide such operations within the 36-month period prior to such date of enactment, and, for seasonal operations, the number of flights so used during the season or seasons covered by that 12-month period." Under NPATMA, the FAA issued IOA for commercial air tours over the Park. IOA does not provide any operating conditions (e.g., route, altitudes, time of day, etc.) for commercial air tours other than an annual limit. In 2012, NPATMA was amended, requiring commercial air tour operators to report actual commercial air tours to the FAA and the NPS. IOA issued by the FAA consistent with NPATMA is the approved action for purposes of the CE, as it is a non-discretionary authorization directed by Congress.

...The use of CE 3.3 A1 is appropriate because environmental impacts resulting from the ATMP will result in no or only minimal changes to the current condition of Parks' resources and values and impacts will be beneficial compared to current conditions.

For a complete discussion of the NPS's justification for using the above-noted CE, *see* the NPS's Categorical Exclusion Documentation Form, attached to the ROD as Appendix C.

Section 1501.4(b) of the CEQ regulations requires an agency seeking to categorically exclude a proposed action to “evaluate the action for extraordinary circumstances in which a normally excluded action may have a significant effect.” The NPS confirms it has performed an appropriate extraordinary circumstances analysis. *See* the NPS’s Categorical Exclusion Documentation Form, attached to the ROD as Appendix C, and the NPS’s Environmental Screening Forms, attached to the ROD as Appendix B.

5. FAA’s “Substantially the Same Action” Determination

As noted above, the CEQ Regulations provide that an agency “may adopt another agency’s determination that a categorical exclusion applies to a proposed action **if the action covered by the original categorical exclusion determination and the adopting agency’s proposed action are substantially the same.**” 40 CFR § 1506.3(d) (emphasis added). Thus, in order to adopt the NPS’s CATEX determination, the FAA must conclude that its proposed action and the NPS’s Proposed Action are “substantially the same.”

In the preamble to the final amended regulations, CEQ stated:

The final rule provides agencies the flexibility to adopt another agency’s determination that a [CATEX] applies to an action when the actions are substantially the same to address situations where a proposed action would result in a [CATEX] determination by one agency and an EA and FONSI by another agency.

85 Fed. Reg. 43304, 43336 (July 16, 2020).

In this case, the FAA has been directed by Congress to implement an ATMP for the Parks in cooperation with the NPS. The proposed action is an action to be taken jointly by both agencies, as NPATMA requires. Therefore, the proposed actions of the agencies are necessarily substantially the same and any reasonably foreseeable changes to the human environment arising from the NPS’s implementation of the proposed action are identical to those that would arise from the FAA’s proposed action. While the FAA’s action also includes updating the operators’ OpSpecs, the update would simply further require the operators to comply with the terms and conditions contained in the ATMP and would not result in any impacts beyond those that could result from implementation of the ATMP itself. Accordingly, the FAA determines that the NPS’s Proposed Action and FAA’s Proposed Action are substantially the same.¹

6. FAA’s Extraordinary Circumstances Analysis

Extraordinary circumstances are factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an EA or an EIS. For FAA proposed actions, extraordinary circumstances exist when the proposed action: (1) involves any of the circumstances described in paragraph 5-2 of FAA Order 1050.1F; and (2) may have a significant impact. *See* FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, section 5-2.

The most potentially relevant circumstances listed in paragraph 5-2 of FAA Order 1050.1F are as follows:²

¹ Updating the operators’ OpSpecs is also independently subject to an FAA CATEX covering “Operating specifications and amendments that do not significantly change the operating environment of the airport.” FAA Order 1050.1F, § 5-6.2(d).

² Section 5-2(b)(10) of FAA Order 1050.1F includes a circumstance reading “[i]mpacts on the quality of the human environment that are likely to be highly controversial on environmental grounds” and explains that “[t]he term

- An adverse effect on cultural resources protected under the National Historic Preservation Act (*see* ROD Appendix F);
- An impact on properties protected under Section 4(f) of the Department of Transportation Act;
- An impact on natural, ecological, or scenic resources of Federal, state, tribal, or local significance (e.g., federally listed or proposed endangered, threatened, or candidate species, or designated or proposed critical habitat under the Endangered Species Act) (*see* ROD Appendix E);
- An impact on national marine sanctuaries or wilderness areas;
- An impact to noise levels at noise sensitive areas;
- An impact on air quality or violation of Federal, state, tribal, or local air quality standards under the Clean Air Act; and
- An impact on the visual nature of surrounding land uses.

In support of this adoption, the FAA performed its own extraordinary circumstances analysis to ensure that a CATEX was the appropriate level of environmental review and adoption of the NPS's CATEX determination was permissible. The FAA evaluated each of its extraordinary circumstances to determine if any would have the potential for significant impacts and determined that no extraordinary circumstances exist. *See* Documentation of FAA's Extraordinary Circumstances Analysis for the Parks, attached as Exhibit 1.

7. Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

‘highly controversial on environmental grounds’ means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds.” The 2020 updates to the CEQ regulations eliminated the “intensity” factor on which this circumstance is based. The FAA nevertheless considered this factor in its extraordinary circumstances analysis for disclosure purposes and to the extent relevant.

To comply with Section 4(f) and as part of its extraordinary circumstances analysis, the FAA prepared a 4(f) analysis, which is attached as Exhibit 2, and determined that there would be no use of any 4(f) resource associated with the implementation of the proposed action. As part of this analysis, the FAA consulted with Officials with Jurisdiction of 4(f) resources in the study area. Further information about those consultations is included in Exhibit 2.

8. Attachments:

The FAA prepared this document on review and contemplation of the documents appended to the ROD in addition to the following documents, which are attached hereto:

- Exhibit 1: Documentation of FAA Extraordinary Circumstances Analysis
- Exhibit 2: FAA Section 4(f) Analysis for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore

9. Adoption Statement

In accordance with 40 CFR § 1506.3(d), the FAA hereby finds that the NPS's and FAA's proposed actions are substantially the same, that no extraordinary circumstances exist, and that adoption of the NPS's CATEX determination is otherwise appropriate. Accordingly, the FAA hereby adopts the NPS's CATEX determination.

Approved: 
Date: _____

Erik Amend, Acting Regional Administrator
Western-Pacific Region
Federal Aviation Administration

EXHIBIT 1

Documentation of FAA Extraordinary Circumstances Analysis

**The Federal Aviation Administration's Extraordinary Circumstance Analysis
For Golden Gate National Recreation Area, San Francisco Maritime National Historical Park,
Muir Woods National Monument, and Point Reyes National Seashore
Air Tour Management Plan**

Extraordinary Circumstance	Yes	No	Notes
1. Is the action likely to have an adverse effect on cultural resources protected under the National Historic Preservation Act of 1966, as amended?		✓	The Federal Aviation Administration (FAA), in coordination with the National Park Service (NPS), consulted with the California State Historic Preservation Office, Native American tribes, and other consulting parties on the potential impacts of the Air Tour Management Plan (ATMP) on historic properties, including cultural landscapes. That consultation process led to a finding that the ATMP will have no adverse effect on historic properties. The FAA proposed this finding to all consulting parties. The FAA did not receive any objections to the finding. <i>See</i> Section 106 documentation for more information.
2. Is the action likely to have an impact on properties protected under Section 4(f) of the Department of Transportation Act?		✓	The ATMP limits the number of commercial air tours to 2,548 tours per year over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours per year over Muir Woods National Monument, and 143 tours per year over Point Reyes National Seashore. The ATMP maintains the same routes as are currently flown under existing operations over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and substantially the same route that the operator reports flying over Point Reyes National Seashore under existing operations. Overall, noise impacts associated with commercial air tours over the Park are not expected to measurably change, since the ATMP authorizes the same number of flights per year as the average number of flights from 2017-2019 for each of the four parks and requires commercial air tours to maintain the same or substantially the same routes and the same or increased altitudes as compared to existing operations, depending on location over the parks or within ½ mile of parks' boundaries. Refer to the <i>Noise Technical Analysis</i> . For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under the National Environmental Policy Act (NEPA), the FAA noise evaluation is based on Yearly ¹ Day Night Average Sound Level (Ldn or DNL); the cumulative noise energy

¹ As required by FAA policy, the FAA typically represents yearly conditions as the Average Annual Day (AAD). However, because ATMP operations in the park occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy.

Extraordinary Circumstance	Yes	No	Notes
			<p>exposure from aircraft over 24 hours. The DNL analysis indicates that the ATMP will not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for NEPA. In addition, visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights per year from 2017-2019 for each of the four parks, and routes will remain the same as existing operations over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and substantially the same over Point Reyes National Seashore as compared to existing operations. There are no commercial air tours authorized over Muir Woods National Monument or within ½ mile of its boundary. After consulting with officials with jurisdiction over appropriate 4(f) resources, the FAA has determined that the ATMP will not result in substantial impairment of Section 4(f) resources; therefore, no constructive use of a Section 4(f) resource associated with the ATMP will occur. <i>See</i> Section 4(f) analysis.</p>
<p>3. Is the action likely to have an impact on natural, ecological, or scenic resources of Federal, state, tribal or local significance?</p>		✓	<p>The ATMP limits the number of commercial air tours to 2,548 tours per year over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours per year over Muir Woods National Monument, and 143 tours per year over Point Reyes National Seashore. The ATMP maintains the same routes as are currently flown under existing operations over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and substantially the same route that the operator reports flying over Point Reyes National Seashore under existing operations. Therefore, impacts to viewsheds will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019 and the routes will remain the same as compared to existing operations over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and substantially the same over Point Reyes National Seashore. Furthermore, since altitudes will increase over portions of Golden Gate National Recreation Area as compared to existing operations and therefore visitors are less likely to notice overflights, the ATMP is expected to result in beneficial impacts to viewsheds compared to current conditions. Therefore, the ATMP will not impact scenic resources.</p> <p>After having informal discussions with the U.S. Fish and Wildlife Service, the FAA and NPS determined the ATMP</p>

Extraordinary Circumstance	Yes	No	Notes
			will have <i>No Effect</i> on listed species. Refer to the Section 7 documentation for more information.
4. Is this action likely to have an impact on the following resources:			
Resources protected by the Fish and Wildlife Coordination Act		✓	The ATMP will not result in the control or modification of a natural stream or body of water. Therefore, no resources protected by the Fish and Wildlife Coordination Act will be impacted.
Wetlands		✓	While wetlands are present within the project area, the ATMP will not result in ground disturbance or fill. Therefore, no impacts to wetlands will occur.
Floodplains		✓	While floodplains are present within the project area, the ATMP will not result in ground disturbance or fill. Therefore, no impacts to floodplains will occur.
Coastal zones		✓	Portions of the planning area for the ATMP overlap with designated coastal zone areas. The agencies analyzed the ATMP's consistency with the provisions of the California Coastal Act and have found the ATMP to be consistent to the maximum extent practicable with the enforceable provisions of the California Coastal Act. The California Coastal Commission concurred with this determination on November 17, 2022. The agencies also analyzed the ATMP's consistency with the enforceable provisions of the McAttee-Petris Act and the policies set forth in the San Francisco Bay Plan, and have found the ATMP to be consistent to the maximum extent practicable with them. The San Francisco Bay Conservation and Development Commission is presumed to concur with the agencies' determination. Refer to the coastal zone consistency review documentation for more information.
National marine sanctuaries		✓	Golden Gate National Recreation Area and Point Reyes National Seashore both share a marine boundary with the Greater Farallones National Marine Sanctuary, and the Cordell Bank National Marine Sanctuary is located further offshore from Point Reyes National Seashore. The National Oceanic and Atmospheric Administration (NOAA) set a minimum altitude of 1,000 ft. above ground level (AGL) by regulation for aircraft flying over harbor seal haul out sites in the Greater Farallones National Marine Sanctuary in order to prevent disturbances to harbor seals. The ATMP requires commercial air tours to fly at a minimum altitude of 1,500 ft. AGL over these areas, which is consistent with this requirement. Therefore, the ATMP will not impact national marine sanctuaries.

Extraordinary Circumstance	Yes	No	Notes
Wilderness areas		✓	<p>Point Reyes National Seashore includes approximately 33,000 acres of designated wilderness. Because commercial air tours do not land in wilderness or parks, the undeveloped quality of wilderness will be maintained. Because the ATMP authorizes the same number of commercial air tours as the average number of flights from 2017-2019 at Point Reyes National Seashore, and substantially the same route will be used, impacts to solitude and the natural quality of wilderness character will be similar or decrease compared to impacts currently occurring.</p> <p>There is no wilderness within Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Muir Woods National Monument.</p>
National Resource Conservation Service-designated prime and unique farmlands		✓	The ATMP will not result in ground disturbance. Therefore, the project will not impact designated prime and unique farmlands.
Energy supply and natural resources		✓	The ATMP will not affect energy supplies or natural resources.
Resources protected under the Wild and Scenic Rivers Act and rivers, or river segments listed on the Nationwide Rivers Inventory (NRI)		✓	<p>Golden Gate National Recreation Area, Muir Woods National Monument, and Point Reyes National Seashore contain rivers eligible to be designated under the Wild and Scenic Rivers Act: Olema Creek and Redwood Creek.</p> <p>The ATMP will not result in ground disturbance or physical impacts to waterways. Therefore, the ATMP will not impact waterways eligible for Wild and Scenic River designation.</p>
Solid waste management		✓	The ATMP will not result in the generation of solid waste, construction, or demolition debris.
5. Is the action likely to cause a division or disruption of an established community, or a disruption of orderly, planned development, or an inconsistency with community plans or goals?		✓	The ATMP will not disrupt communities or development plans or goals.
6. Is the action likely to cause an increase in surface transportation congestion?		✓	The ATMP will not cause an increase in surface transportation congestion.
7. Is the action likely to have an impact on noise levels in noise-sensitive areas?		✓	Overall, noise impacts associated with commercial air tours over the Park are not expected to measurably change since the number of authorized flights under the ATMP will be

Extraordinary Circumstance	Yes	No	Notes
			the same as the average number of flights from 2017-2019 for each of the four parks, and the routes will remain the same as compared to existing operations over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and substantially the same over Point Reyes National Seashore. Furthermore, altitudes will increase over portions of Golden Gate National Recreation Area and its ½ mile boundary as compared to existing operations. Refer to the <i>Noise Technical Analysis</i> in the environmental screening form (ESF). For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Park under NEPA, the FAA noise evaluation is based on Yearly Day Night Average Sound Level (Ldn or DNL); the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the undertaking will not result in any noise impacts that would be “significant” or “reportable” as defined in FAA Order 1050.1F.
8. Is the action likely to have an impact on air quality or violate Federal, state, tribal, or local air quality standards under the Clean Air Act?		✓	The findings from the air quality screening analysis demonstrate that implementing the ATMP will not meaningfully impact local air quality and will not have regional impacts from implementation of the ATMP in the Park. See Air Quality Technical Analysis in the ESF.
9. Is the action likely to have an impact on water quality, aquifers, public water supply systems, or state or tribal water quality standards under the Clean Water Act or the Safe Drinking Water Act?		✓	The ATMP will not result in ground disturbance or other activities that will impact water quality, aquifers, public water supply systems, or water quality standards under the Clean Water Act or Safe Drinking Water Act.
10. Is the action likely to be highly controversial on environmental grounds?		✓	There are no highly controversial environmental effects. The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. See FAA Order 1050.1F 5-2(b)(10) ² . Impacts from commercial air tours generally are understood from existing modeling and literature and

² The 2020 updates to the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA eliminated the “intensity” factor on which this circumstance is based. It is nevertheless included for disclosure purposes and to the extent relevant.

Extraordinary Circumstance	Yes	No	Notes
			can be accurately projected for Park resources. Information and models used to assess impacts for commercial air tours, as discussed in the NPS categorical exclusion (CE)/ESF, are consistent with peer reviewed literature. Therefore, the ATMP will not result in substantial dispute involving reasonable disagreement over the degree, extent, or nature of the environmental impacts or the risk of causing environmental harm.
11. Is the action likely to be inconsistent with any Federal, State, Tribal, or local law relating to the environmental aspects of the project?		✓	The ATMP will be consistent with all applicable Federal, State, Tribal, and local law.
12. Is the action likely to directly, indirectly, or cumulatively create a significant impact on the human environment?		✓	The FAA and NPS qualitatively considered the cumulative impacts of commercial air tours along with impacts from existing activities described in the NPS CE/ESF. In some cases, the noise contribution from other sources may be substantial, such as high-altitude jets, roadway traffic noise, or developed portions of the Parks. The addition of commercial air tour noise is such a small contribution of noise overall that it is unlikely they would result in noticeable or meaningful change in the overall acoustic environment. Commercial air tours over roadways are likely to be masked by existing noise and therefore the impacts would be de minimis. Finally, the ATMP does not add new noise to the existing acoustic environment. Therefore, when considering other sources of noise in the Park that are likely to continue under the ATMP, the continuation of 2,548 tours per year over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours per year over Muir Woods National Monument, and 143 tours per year over Point Reyes National Seashore will not result in a meaningful change to the current condition of the visual or auditory landscape at the Park.

**Extraordinary circumstances exist when the proposed action (1) involves any of the listed circumstances, and (2) may have significant impacts (FAA Order 1050.1F para. 5-2 and 40 CFR §1508.4). See also FAA Order 1050.1F Desk Reference for a more detailed description of the analysis for each extraordinary circumstance.*

EXHIBIT 2

FAA Section 4(f) Analysis for Golden Gate National Recreation Area,
Muir Woods National Monument,
San Francisco Maritime National Historical Park, and Point Reyes
National Seashore

Section 4(f) Analysis in FAA Adoption Document

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Introduction

The Federal Aviation Administration (FAA) prepared this document to analyze and evaluate the Proposed Action’s potential impacts to resources protected under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) (Section 4(f)). The proposed action is to implement an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore (Parks).

Considering their proximity, National Park Service (NPS) management of the parks, and current commercial air tour operations, the agencies determined that a single ATMP covering all four parks (Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore) was appropriate for future management of commercial air tours. This document also presents an analysis of potential Section 4(f) impacts in all four parks.

As land acquisition, construction, or other ground disturbance activities would not occur under the ATMP, the Proposed Action would not have the potential to cause a direct impact to a Section 4(f) resource. Therefore, analysis of potential impacts to Section 4(f) resources is limited to identifying impacts that could result in a constructive use. Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA.

This document describes Section 4(f) regulations and requirements, the study area for Section 4(f), the process used to identify Section 4(f) resources in the study area, and consideration of potential impacts that could result in substantial impairment to Section 4(f) resources in the study area.

Regulatory Context

Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

The FAA uses procedures in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*¹ for meeting Section 4(f) requirements. Federal Highway Administration/Federal Transit Administration regulations and policy are not binding on the FAA; however, the FAA may use them as guidance to the extent relevant to aviation projects.² The FAA requires consideration of noise impacts for proposed changes in air traffic procedures or airspace redesign across a study area which may extend vertically from the surface to 10,000 feet (ft.) above ground level (AGL).³ The land use compatibility guidelines in 14 CFR Part 150 assist with determining whether a proposed action would constructively use a Section 4(f) resource. These guidelines rely on the Day Night Average Sound level (DNL), which is considered the best measure of impacts to the quality of the human environment from exposure to noise.

The FAA acknowledges that the land use categories in 14 CFR Part 150 may not be sufficient to determine the noise compatibility of Section 4(f) properties (including, but not limited to, noise sensitive

¹ Federal Aviation Administration. 2015. 1050.1F - *Environmental Impacts: Policies and Procedures*. Also see 1050.F Desk Reference (Version 2, February 2020).

² See 1050.1F Desk Reference, Section 5-3.

³ Department of Transportation, Federal Aviation Administration, Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Appendix B. Federal Aviation Administration Requirements for Assessing Impacts Related to Noise and Noise-Compatible Land Use and Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303), Para. B-1.3, Affected Environment. July 16, 2015.

areas within national parks and wildlife refuges), where a quiet setting is a generally recognized purpose and attribute. The FAA has consulted with the NPS and included supplemental noise metrics in the Section 4(f) analysis for the ATMP (see Modeling Noise Impacts below).

Section 4(f) is applicable to all historic sites of national, state, or local significance, whether or not they are publicly owned or open to the public. Except in unusual circumstances, Section 4(f) protects only those historic sites that are listed or eligible for inclusion on the National Register of Historic Places (NRHP).⁴ Historic sites are normally identified during the process required under Section 106 of the National Historic Preservation Act. Section 4(f) is not applicable to privately owned parks, recreation areas, and wildlife and waterfowl refuges.

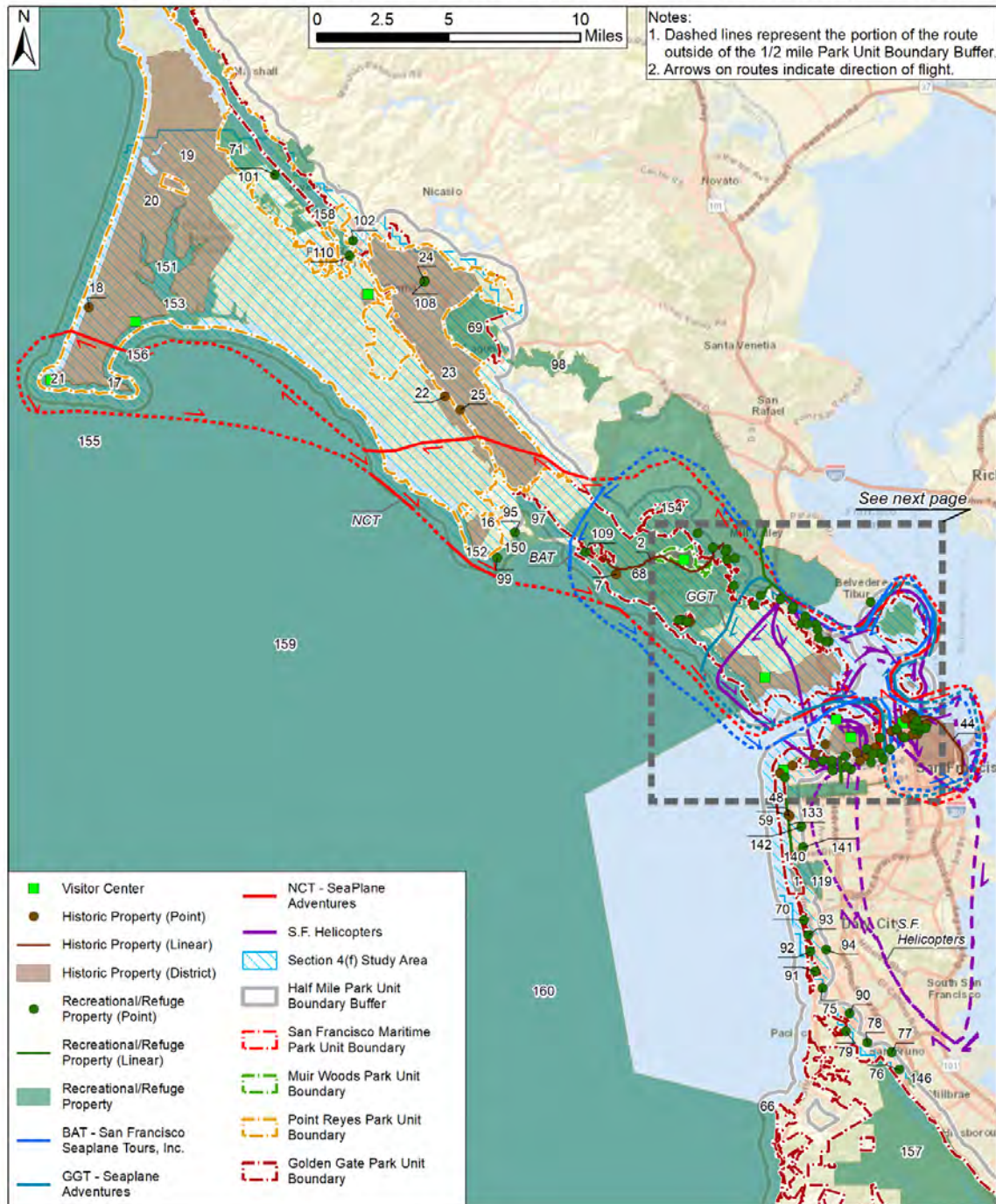
Section 4(f) Resources

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See Figure 1a for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property occurs within the Parks or ½ mile buffer around the Parks) was included in the Section 4(f) analysis.

⁴ If a historic site is not NRHP-listed or eligible, a state or local official may formally provide information to FAA to indicate that a historic site is locally significant. The responsible FAA official may then determine it is appropriate to apply Section 4(f). See FAA Order 1050.1F, Section 4(f) Resources for further detail.

Table 1 lists Section 4(f) historic sites, Table 2 shows Section 4(f) parks and recreational areas, and Table 3 shows Section 4(f) wildlife and waterfowl refuges identified in the study area.⁵

**Section 4(f) Study Area and Properties for ATMP at
Golden Gate National Recreation Area, Muir Woods National Monument,
San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



⁵ All data sources were accessed the week of March 21, 2022.

Figure 1a shows a map of all Section 4(f) resources within the study area and Figure 1b shows a zoomed in map of select Section 4(f) resources within the study area.

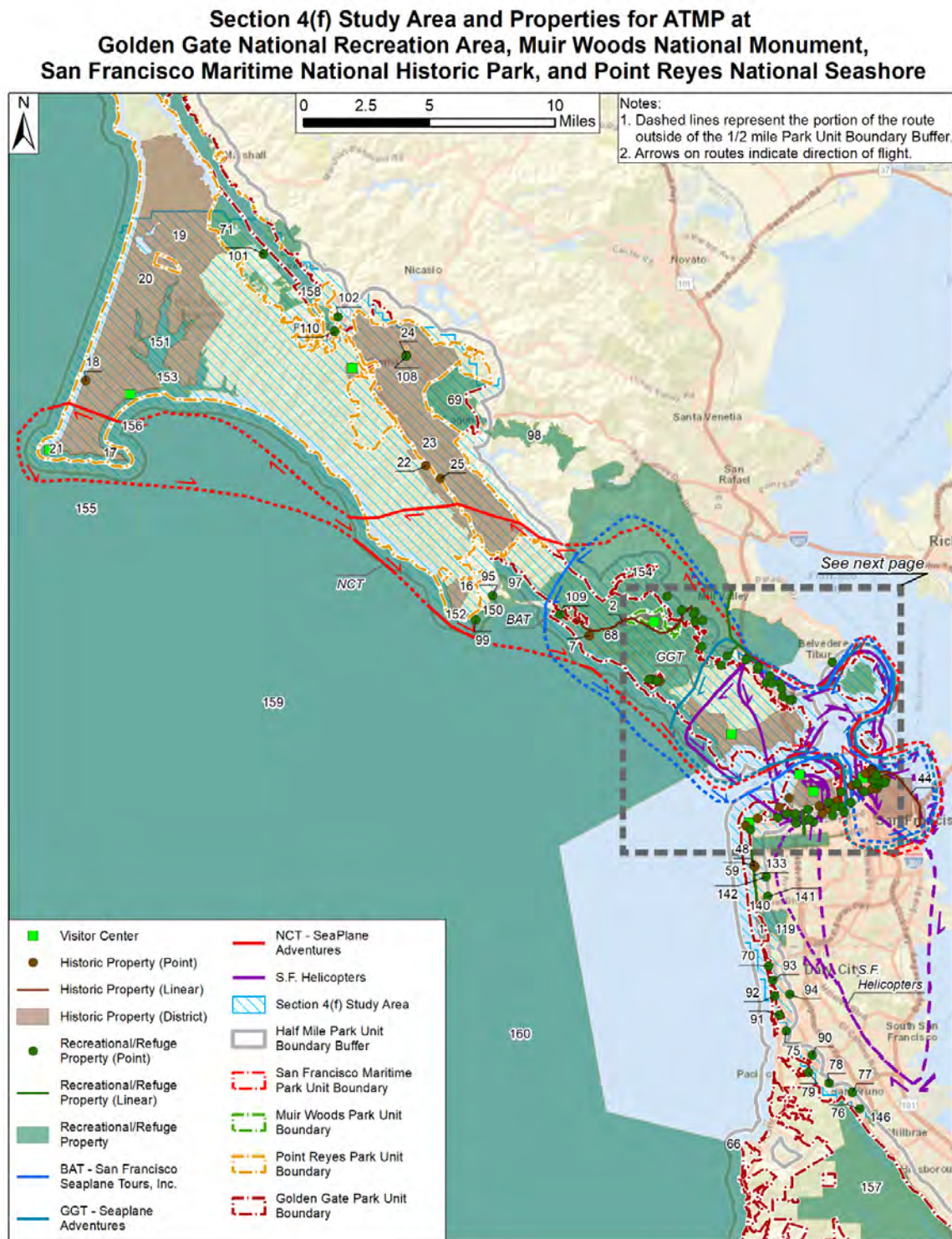


Figure 1a. Map of Section 4(f) resources at the Parks; includes resources entirely and partially within the Park study area.

**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**

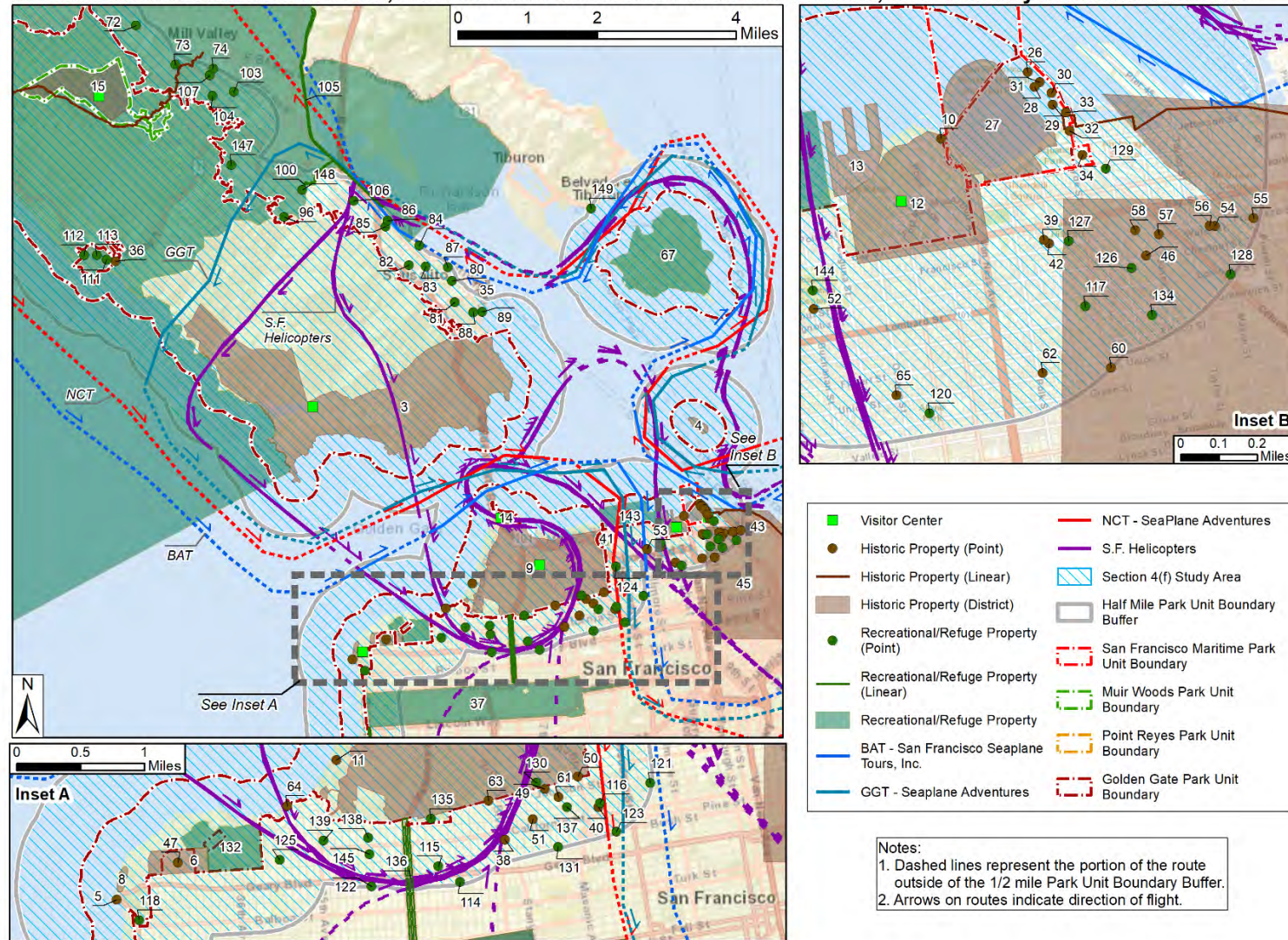


Figure 1b. Map of Section 4(f) resources at the Parks; zoomed in for detail, includes resources entirely and partially within the Park study area.

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation	15

				achievements in the Bay Area. It is also listed under Criterion C for architecture.	
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22

Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33

Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in	43

				the areas of Architecture and Community Planning and Development.	
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building technologies and for the design of its Mayan Art Deco ornamentation.	47
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51

Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64

Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65
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Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in Table 1.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the	622 acres (331 acres in study area)	150

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
		California Fish and Game Code		
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

Indicators of Acoustic Conditions

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in Table 4.

Table 4. Metrics used for the noise analysis.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.⁶</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none">• Increases in both the loudness and duration of noise events• The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL)

⁶ FAA Order 1050.1F, Exhibit 4-1

	However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12hr}$ will be three dB higher than DNL.
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁷	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁸</p>

Modeling Noise Impacts

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁹ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

⁷ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μ Pa. The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁸ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁹ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in Table 4 and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

Summary of Potential Noise Impacts

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.¹⁰ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:¹¹

¹⁰ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

¹¹ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the *Noise Technical Analysis*. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft, may request to be allowed to conduct air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historic Park beginning one hour after sunrise, as defined by National Oceanic and Atmospheric Administration (NOAA)¹², on all days that flights are authorized, and the operator with allocations for Point Reyes National Seashore may request to conduct tours at Point Reyes National Seashore beginning at 11:00 AM on all days that flights are authorized. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore (Red Route). These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP sets minimum altitudes for both helicopters and fixed-wing aircraft that, with certain exceptions, are generally consistent with the existing condition of air tours over Golden Gate National Recreation Area (a minimum altitude for helicopter tours of 1,000 – 1,500 ft. AGL, depending on location over the Park, and a minimum altitude for fixed-wing tours of 1,500 – 2,500 ft. AGL depending on location over the Park with the exception of a minimum altitude of 1,000 ft. AGL near Angel Island), San Francisco Maritime National Historical Park (a minimum altitude of 1,000 ft. AGL for helicopters and a minimum altitude of 1,500 ft. AGL for fixed wing aircraft), and Point Reyes National Seashore (a general minimum altitude of 1,500 ft. AGL except that aircraft must maintain a minimum altitude of 2,000 ft. AGL when flying over land-based wilderness, and a minimum altitude of 2,500 ft. AGL when flying over Bolinas Ridge and Inverness Ridge). The minimum altitudes required by the ATMP differ from the existing condition of tours over Golden Gate National Recreation Area near Alcatraz (increased from approximately 1,000 ft. AGL to 1,500 ft. AGL for both fixed wing aircraft and helicopters). See Figure 1a.

Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness in Point Reyes National Seashore and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and a minimum altitude of 1,500 ft. AGL within the ATMO boundary around Alcatraz Island, and 1,000 ft.

helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

¹² Sunrise data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Vibrational Impacts

A review of the potential for vibrational impacts on historic buildings, parklands, and forests suggests that the potential for damage resulting from helicopters and fixed-wing propeller aircraft overflights is minimal, as the vibration amplitude of these overflights at the altitudes prescribed in the ATMP will be well below recommended limits for the Section 4(f) resources identified.^{13, 14} Vibrational impacts are not anticipated to surrounding parkland and refuge areas given that aircraft overflights do not contain vibrational energy at levels which would affect outdoor areas or natural features and there is no substantial change from existing conditions.

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

¹³ Hanson, C.E., King, K.W., et al., "Aircraft Noise Effects on Cultural Resources: Review of Technical Literature," NPOA Report No. 91-3 (HMMH Report No.290940.04-1), September 1991.

¹⁴ Volpe National Transportation Systems Center, Department of Transportation, 2014. Literature Review: Vibration of Natural Structures and Ancient/Historical Dwellings, Internal Report for National Park Service, Natural Sounds and Night Skies Division, August 21, 2014.

ATMP restricts air tours to the same routes as flown under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Conclusion

The FAA has determined that there would be no constructive use of Section 4(f) properties from implementation of the Proposed Action because noise and visual impacts from commercial air tours under the ATMP would not constitute a substantial impairment of Section 4(f) resources in the study area. The noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. NPS's supplemental noise metrics show that the noise impacts would be similar to current conditions and provisions within the ATMP would provide benefits to Section 4(f) resources. Likewise, the visual impacts to Section 4(f) resources would be similar or less than impacts currently occurring because the number of authorized flights under the ATMP (2,538 flights per year) would be the same as or less than the average number of flights from 2017 to 2019. Together, this supports the FAA's determination that the Proposed Action would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area.

The FAA consulted with the NPS and other officials with jurisdiction (OWJ) over Section 4(f) resources in the study area regarding FAA's finding of no substantial impairment, and hence, its no constructive use determination. As a cooperating agency on the ATMP and associated environmental review, NPS was actively engaged with FAA on the proposed action. FAA consulted with the State Historic Preservation Office (SHPO) on historic properties and received no response or objection to its finding of "no adverse effect."

In addition to consultation with the NPS and the SHPO, FAA corresponded with the officials with jurisdiction related to the remaining Section 4(f) resources. On September 21, 2022, FAA sent letters to the Bureau of Land Management (BLM), California Department of Parks and Recreation, City of Mill Valley, City of Pacifica, City of San Bruno, City of Sausalito, City of South San Francisco, Daly City, Firehouse Community Park Agency, Marin County, Marin County Parks, Muir Beach Community Service District, National Park Service (NPS), San Francisco Recreation & Parks Department, San Francisco Public Library, San Francisco Public Utilities Commission, San Mateo County, Tamalpais Community Services District, Town of Tiburon, California Department of Fish and Wildlife, and the National Oceanic and Atmospheric Administration (NOAA) National Marine Sanctuary Program describing the proposed action, analysis on potential use of Section 4(f) resources under their respective jurisdiction, and FAA's preliminary determination (see attached). Follow-up emails were sent on September 28, 2022. The City of South San Francisco and the National Park Service responded with no comment or issues with the FAA's preliminary determination (see attached). The Mesa Park Board provided correspondence indicating their concerns with air tours and emphasized a desire to remove air flights over Mesa Park, not just limited to air tours (see attached). FAA considered Mesa Park Board's feedback in developing

the ATMP. Restricting aircraft over Mesa Park is beyond the scope of the ATMP as it is limited to air tours over the Parks and a half mile outside the boundary of each Park. No additional responses, and hence, no objections, were received. On September 30, 2022, FAA sent a revised letter to the San Francisco Recreation & Parks Department adding one additional Section 4(f) resource property. A follow-up email was sent on October 7, 2022. The San Francisco Recreation & Parks Department responded with no comment or issues with the FAA's preliminary determination (see attached).

CORRESPONDENCE



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Alan Shear
Tamalpais Community Services District
305 Bell Lane
Mill Valley, CA 94941

Dear Alan Shear:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Eastwood Park and Tamalpais Valley Community Center, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Eastwood Park and Tamalpais Valley Community Center. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

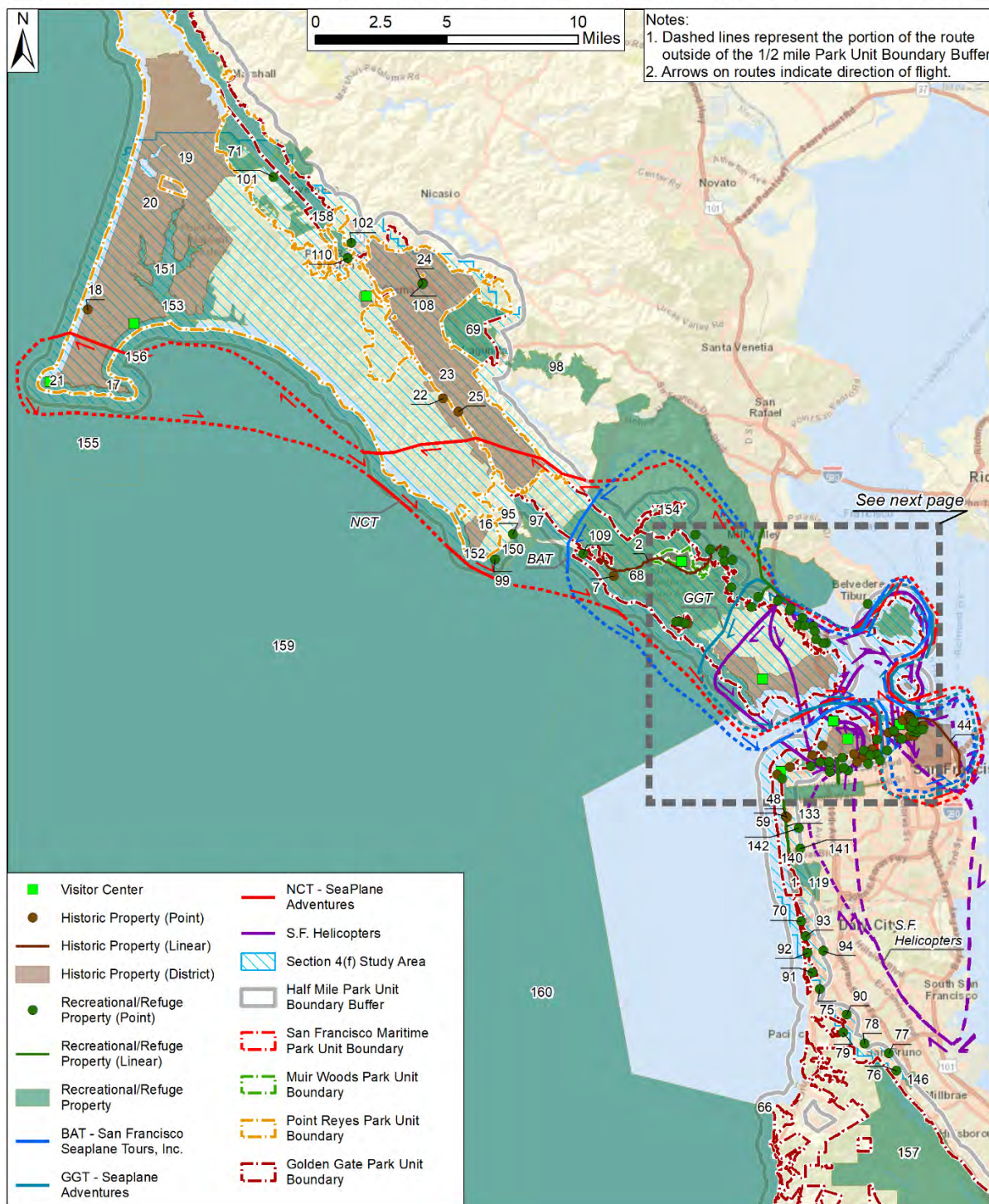
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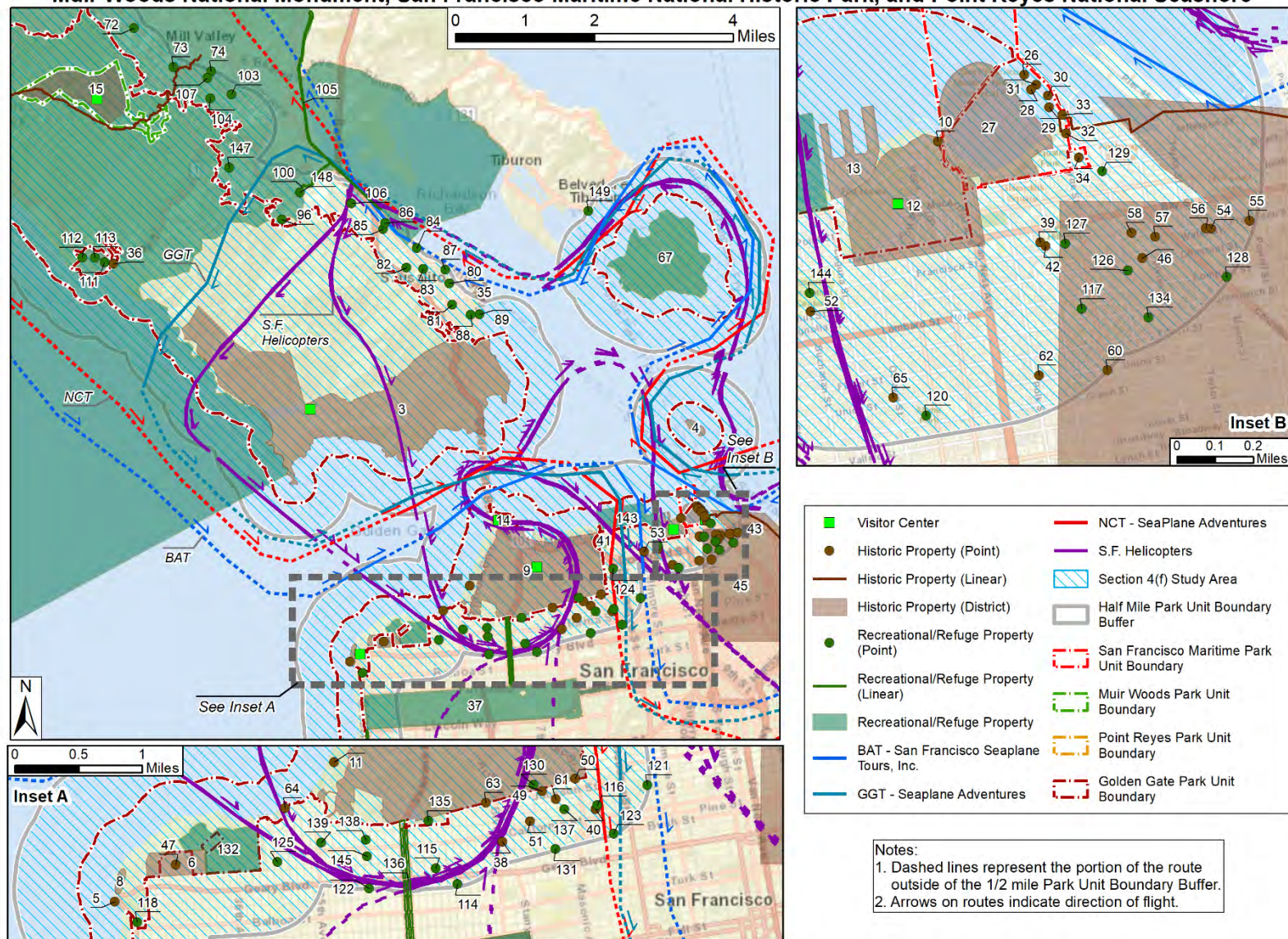
Attachments

- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

**Section 4(f) Study Area and Properties for ATMP at
Golden Gate National Recreation Area, Muir Woods National Monument,
San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Armando Quintero
California Department of Parks and Recreation
715 P Street
Sacramento, CA 95814

Dear Armando Quintero:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Angel Island State Park, Mount Tamalpais State Park, Samuel P. Taylor State Park, Thornton State Beach, and Tomales Bay State Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a

quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>
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For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000– 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000– 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Angel Island State Park, Mount Tamalpais State Park, Samuel P. Taylor State Park, Thornton State Beach, and Tomales Bay State Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
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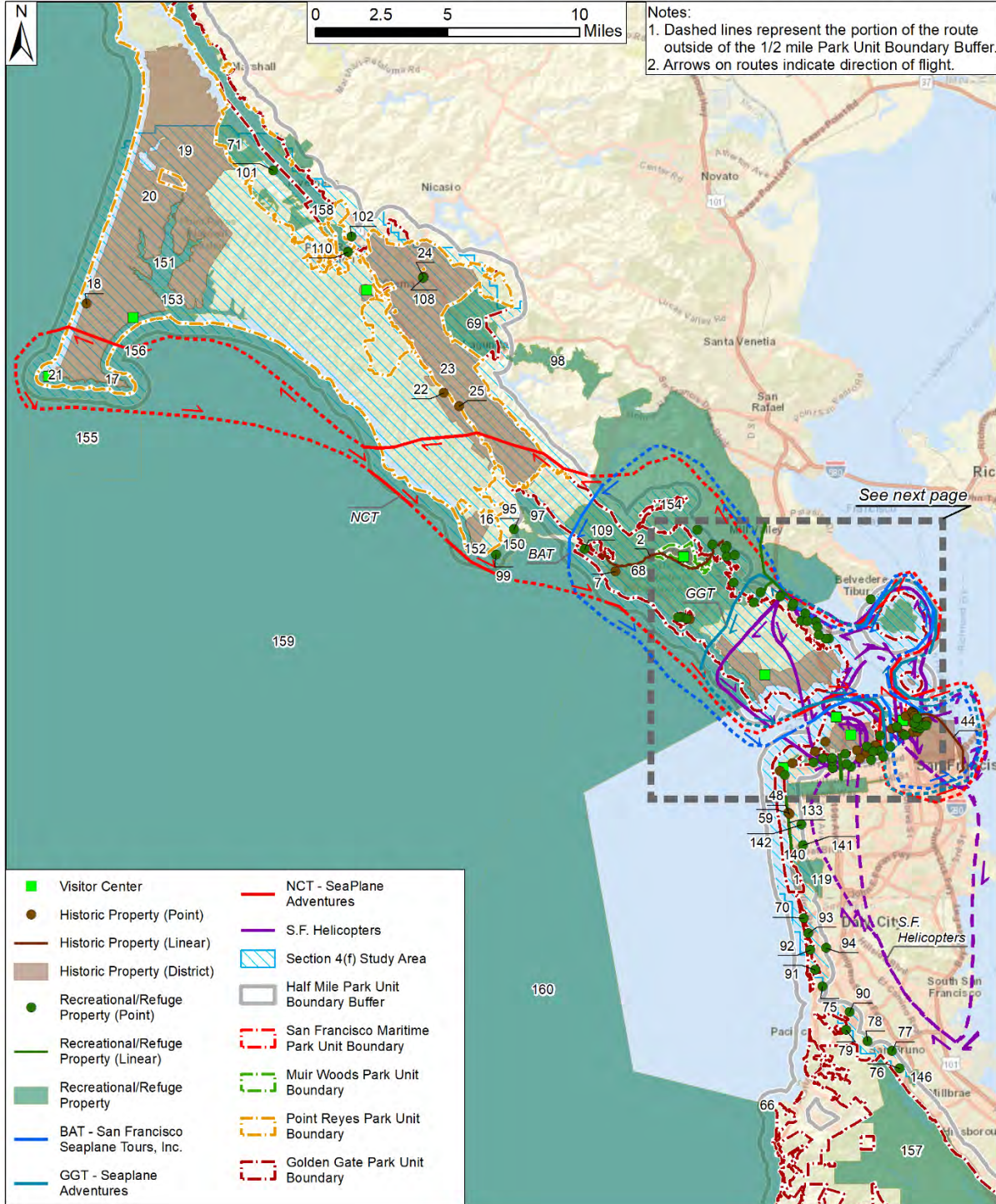
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

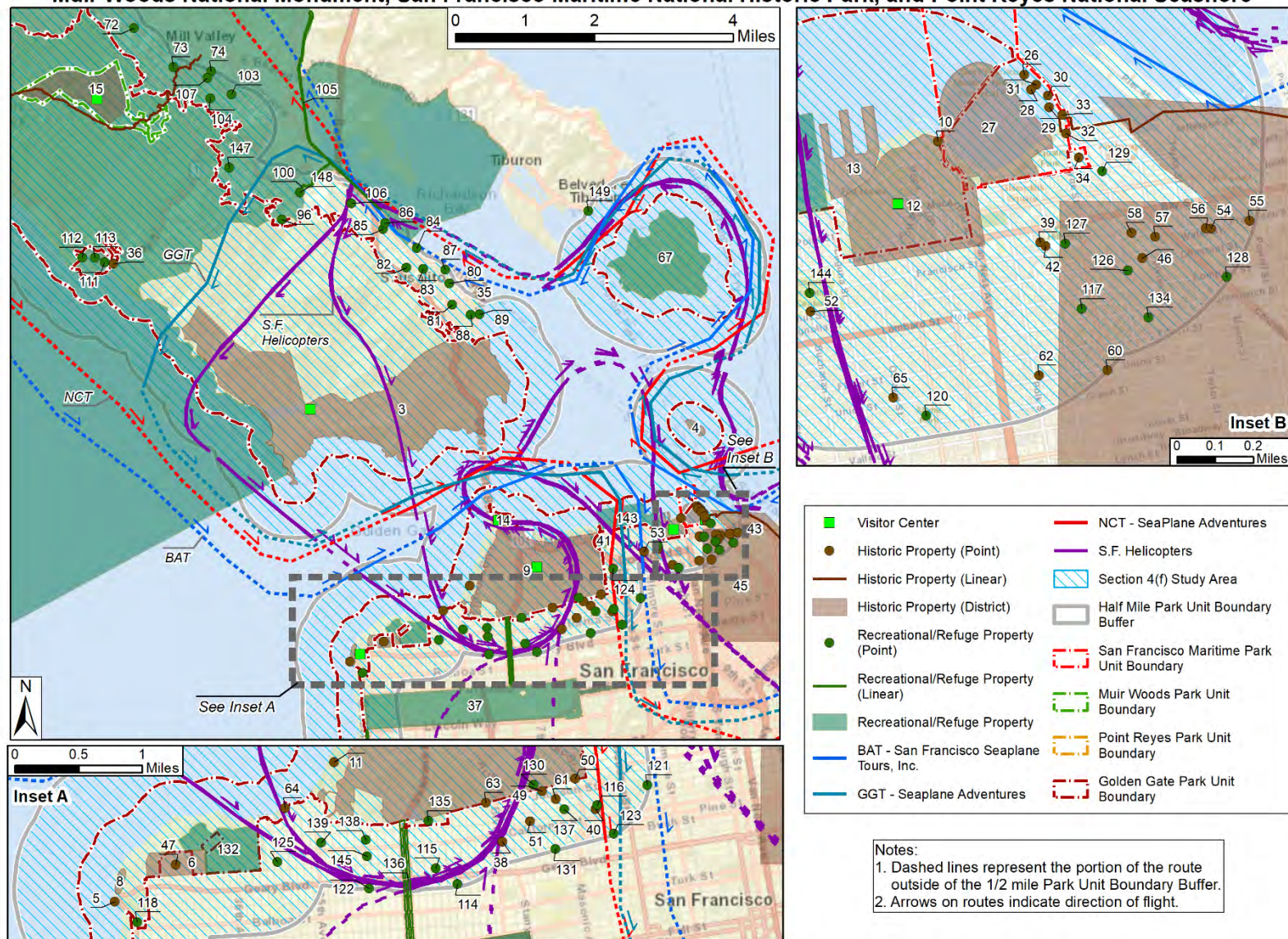
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Carey Feierabend
Golden Gate National Recreation Area
Building 201, Fort Mason
San Francisco, CA 94123

Dear Carey Feierabend:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Fort Point National Historic Site, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as "reportable": for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Fort Point National Historic Site. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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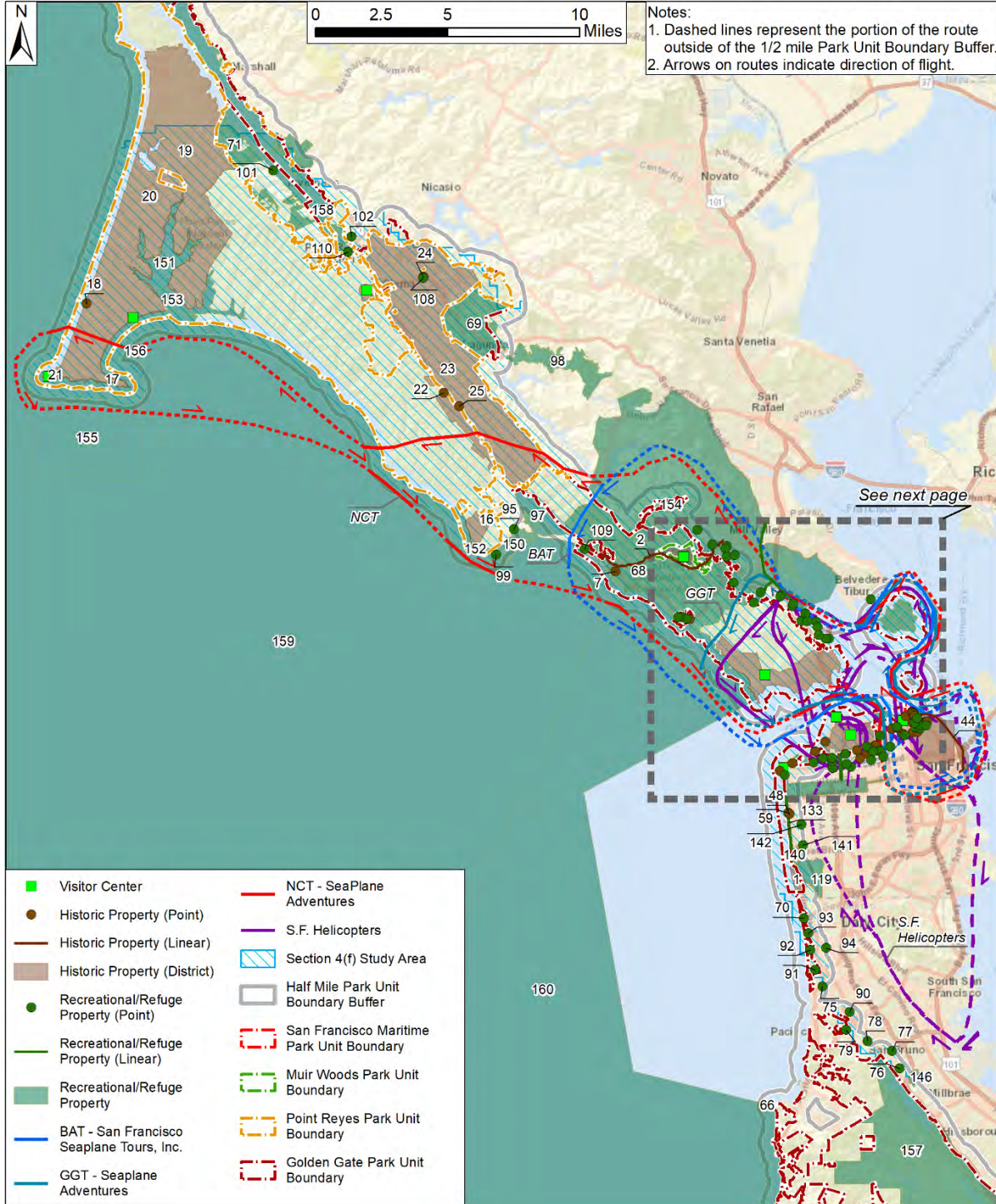
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

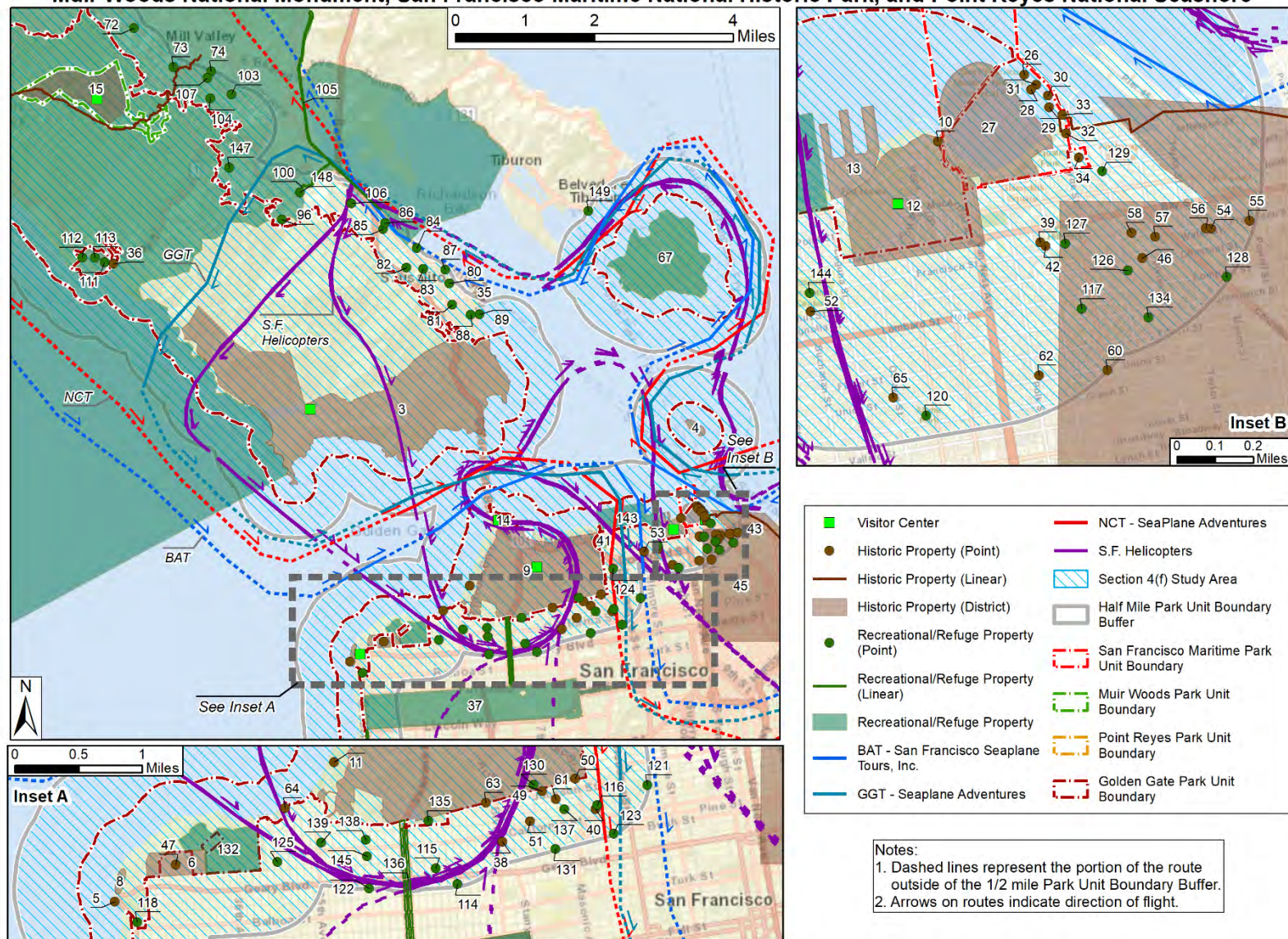
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Clay Bartlett
City of Sausalito
City Hall, first floor
Sausalito, CA 94965

Dear Clay Bartlett:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Cazneau Park, Cloudview Park, Cypress Ridge Open Space Preserve, Langendorf Park, Marinship Park, Martin Luther King Jr Park, Remington Dog Park, Robin Sweeney Park, Southview Park, and Tiffany Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by

Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit Court granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Cazneau Park, Cloudview Park, Cypress Ridge Open Space Preserve, Langendorf Park, Marinship Park, Martin Luther King Jr Park, Remington Dog Park, Robin Sweeney Park, Southview Park, and Tiffany Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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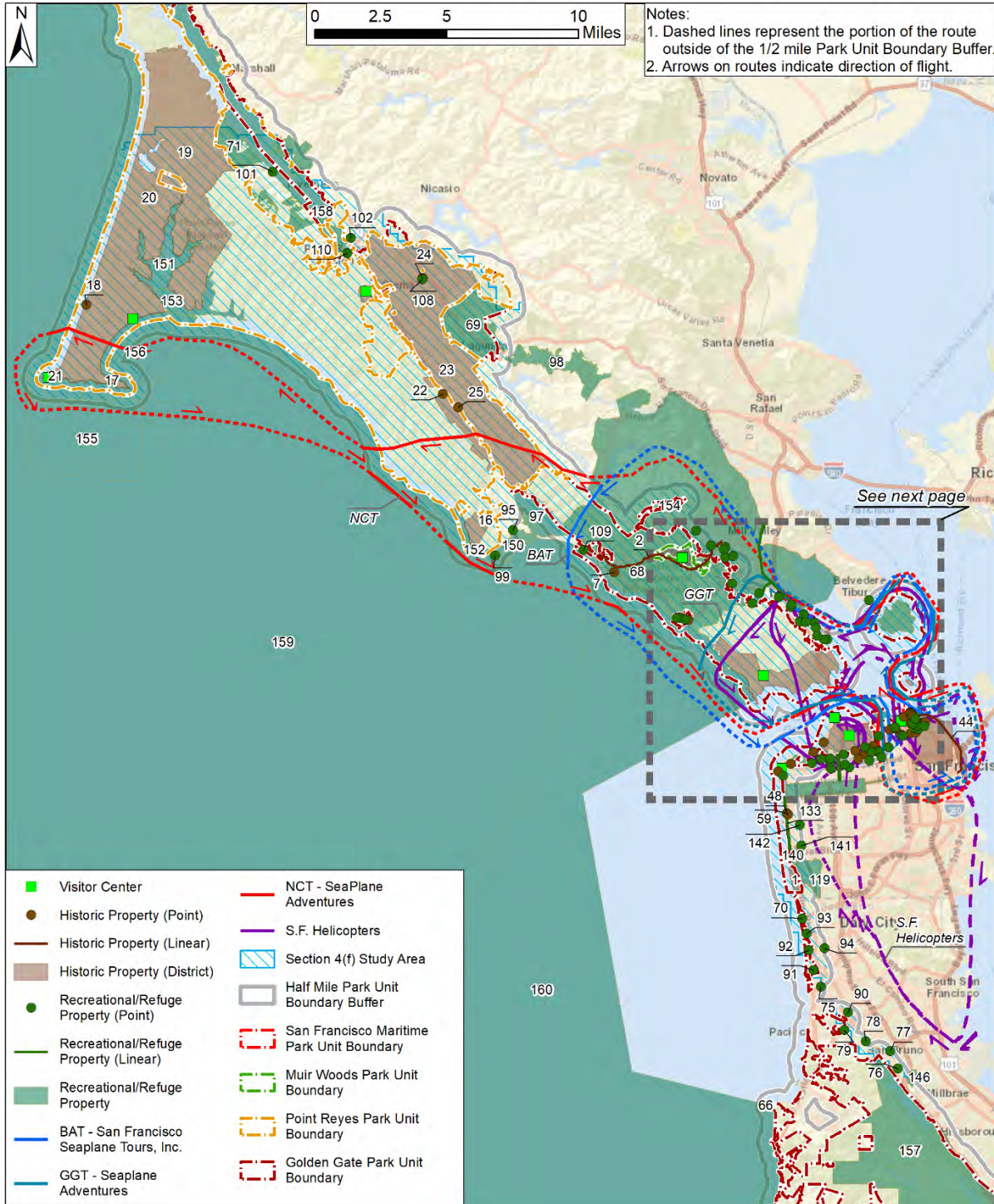
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

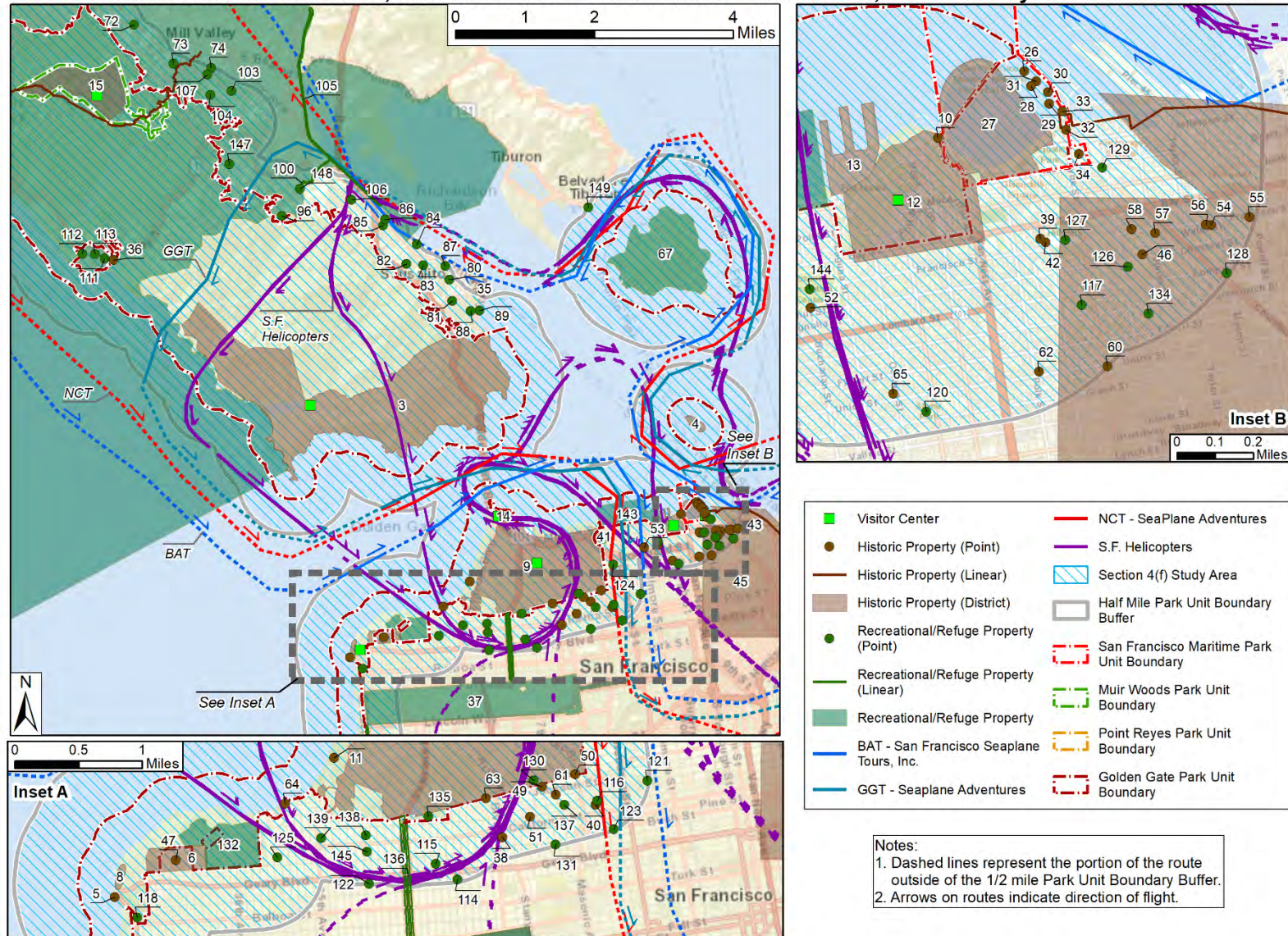
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Dan Venezia
City of San Bruno
1125 Crystal Springs Road
San Bruno, CA 94066

Dear Dan Venezia:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Buckeye Park, Glenview Park, Pacific Heights Park, and Ponderosa Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as "reportable": for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Buckeye Park, Glenview Park, Pacific Heights Park, and Ponderosa Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
Date: 2022.09.16
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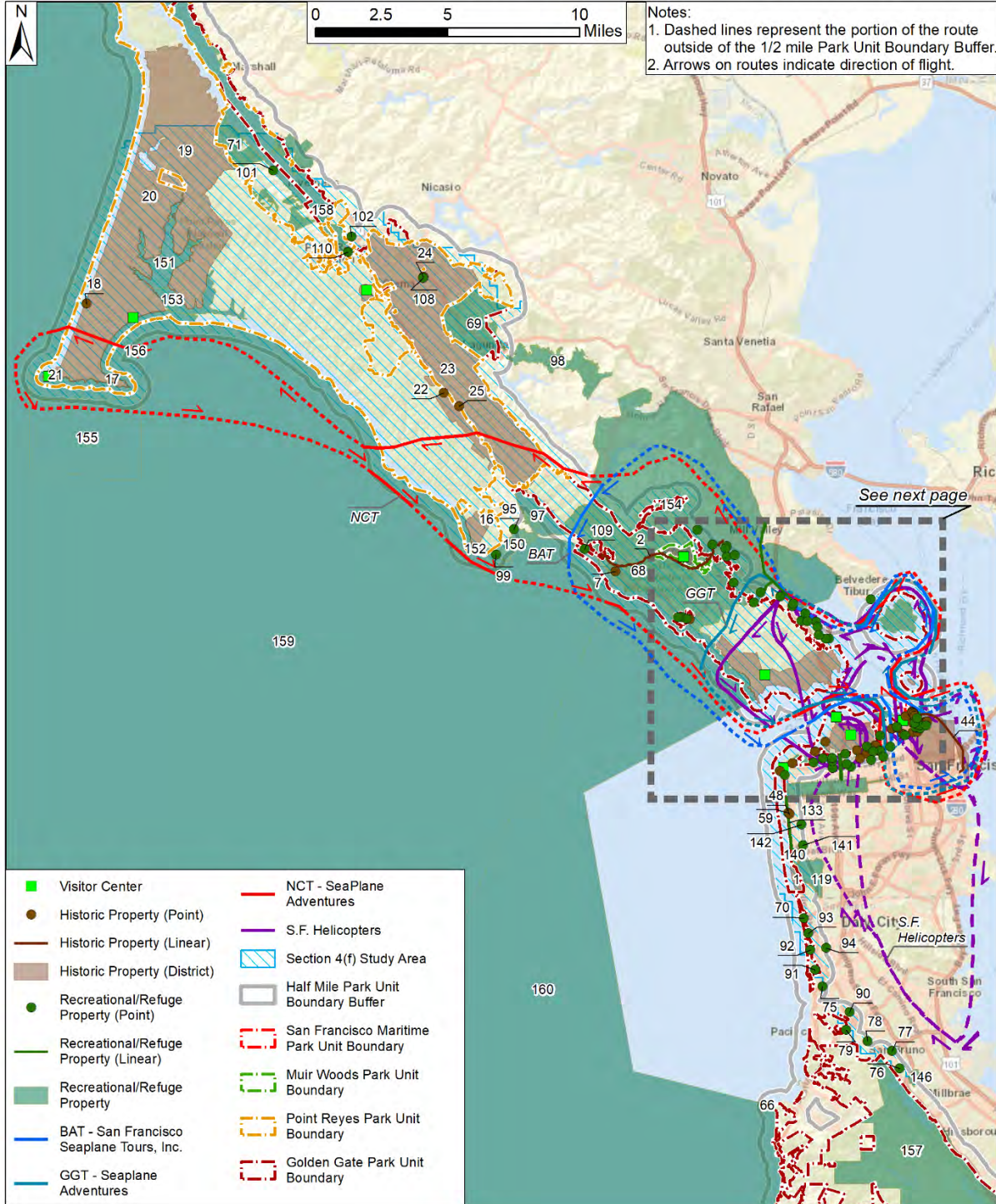
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

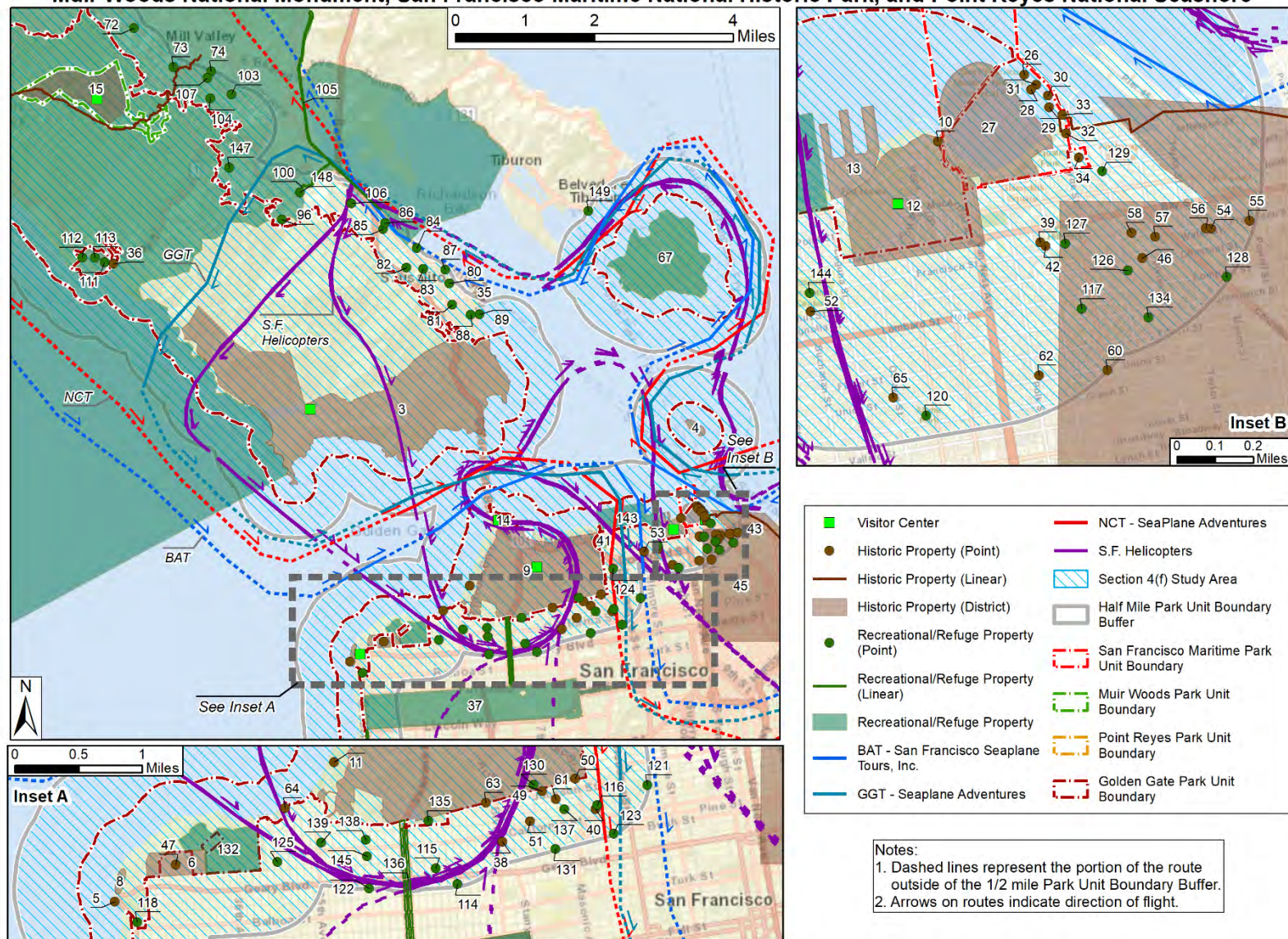
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Eric Morgan
Bureau of Land Management
940 2nd Ave
Marina, CA 93933-6009

Dear Eric Morgan:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to California Coastal National Monument, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as "reportable": for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of California Coastal National Monument. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

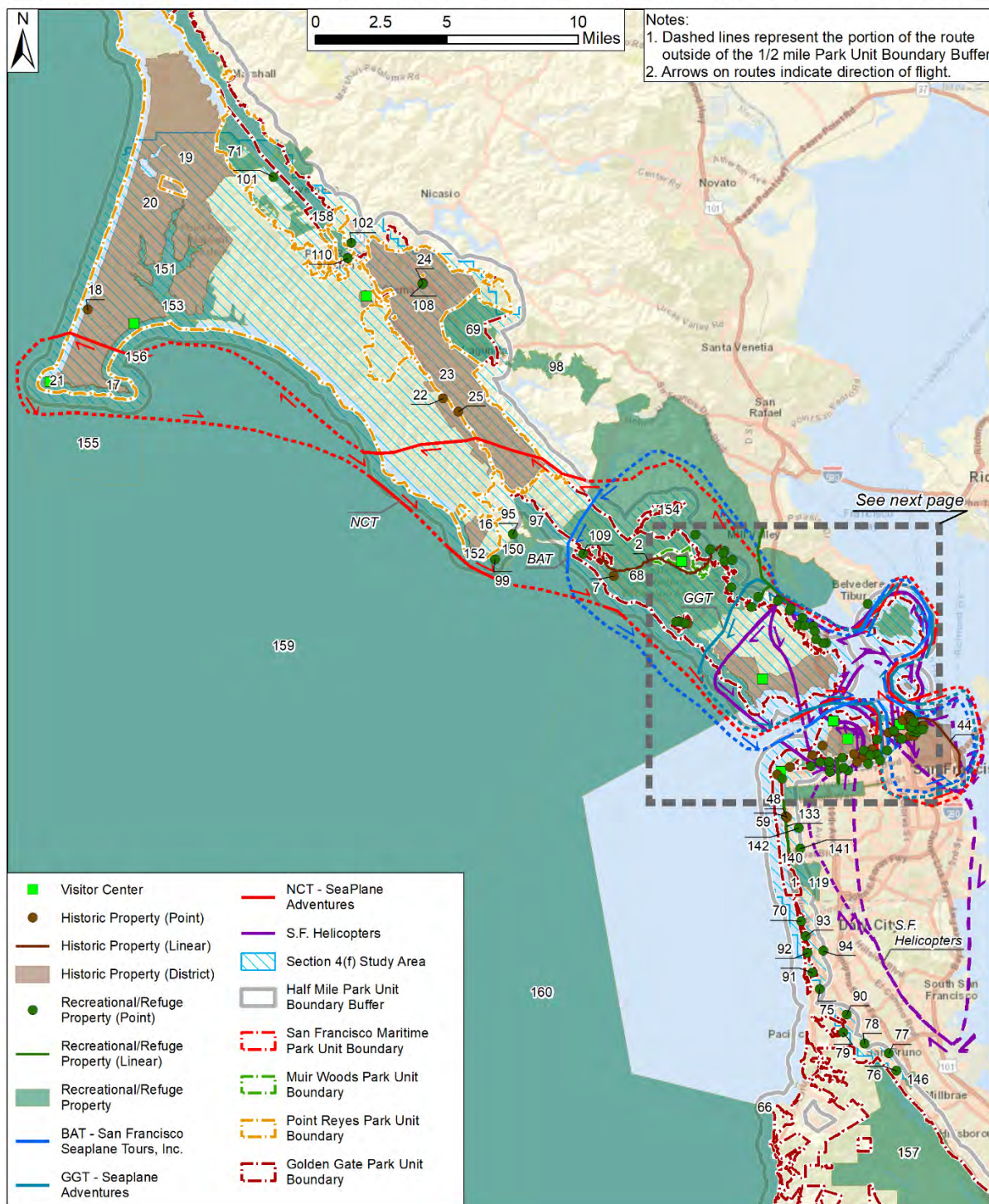
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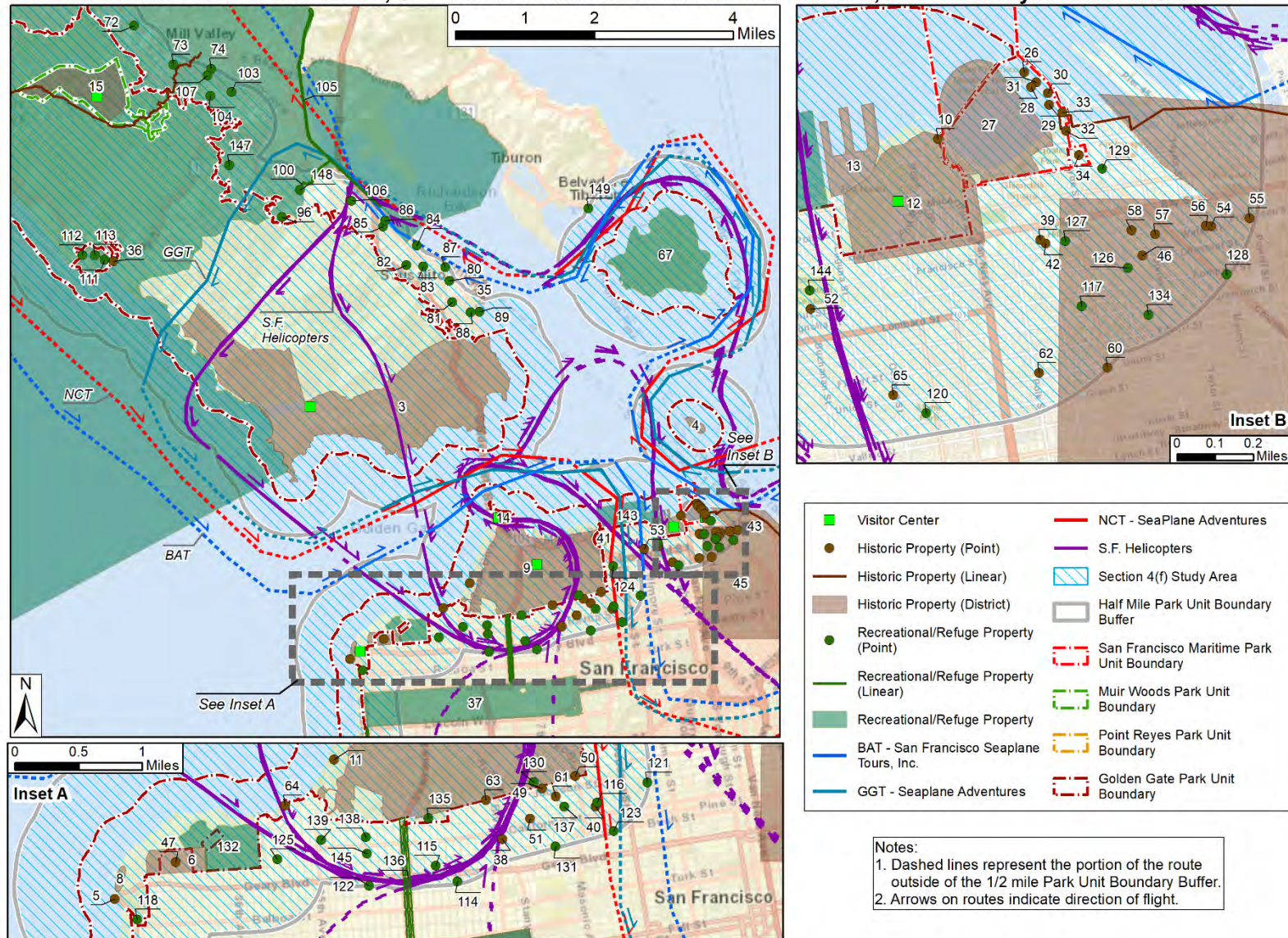
Attachments

- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

**Section 4(f) Study Area and Properties for ATMP at
Golden Gate National Recreation Area, Muir Woods National Monument,
San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Erin Chappell
California Department of Fish and Wildlife
2822 Cordelia Road, Suite 100
Fairfield, CA 94534

Dear Erin Chappell:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Bolinas Quail Refuge, Mount Tamalpais Game Refuge, San Francisco Fish and Game Refuge, Tomales Bay Ecological Reserve, Estero de Limantour State Marine Reserve, Point Reyes State Marine Reserve, Drakes Estero State Marine Conservation Area, Point Reyes State Marine Conservation Area, and Duxbury Reef State Marine Conservation Area, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an

annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit Court granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>
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For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000– 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000– 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Bolinas Quail Refuge, Mount Tamalpais Game Refuge, San Francisco Fish and Game Refuge, Tomales Bay Ecological Reserve, Estero de Limantour State Marine Reserve, Point Reyes State Marine Reserve, Drakes Estero State Marine Conservation Area, Point Reyes State Marine Conservation Area, and Duxbury Reef State Marine Conservation Area. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

Digitally signed by ERIC
M ELMORE
Date: 2022.09.16
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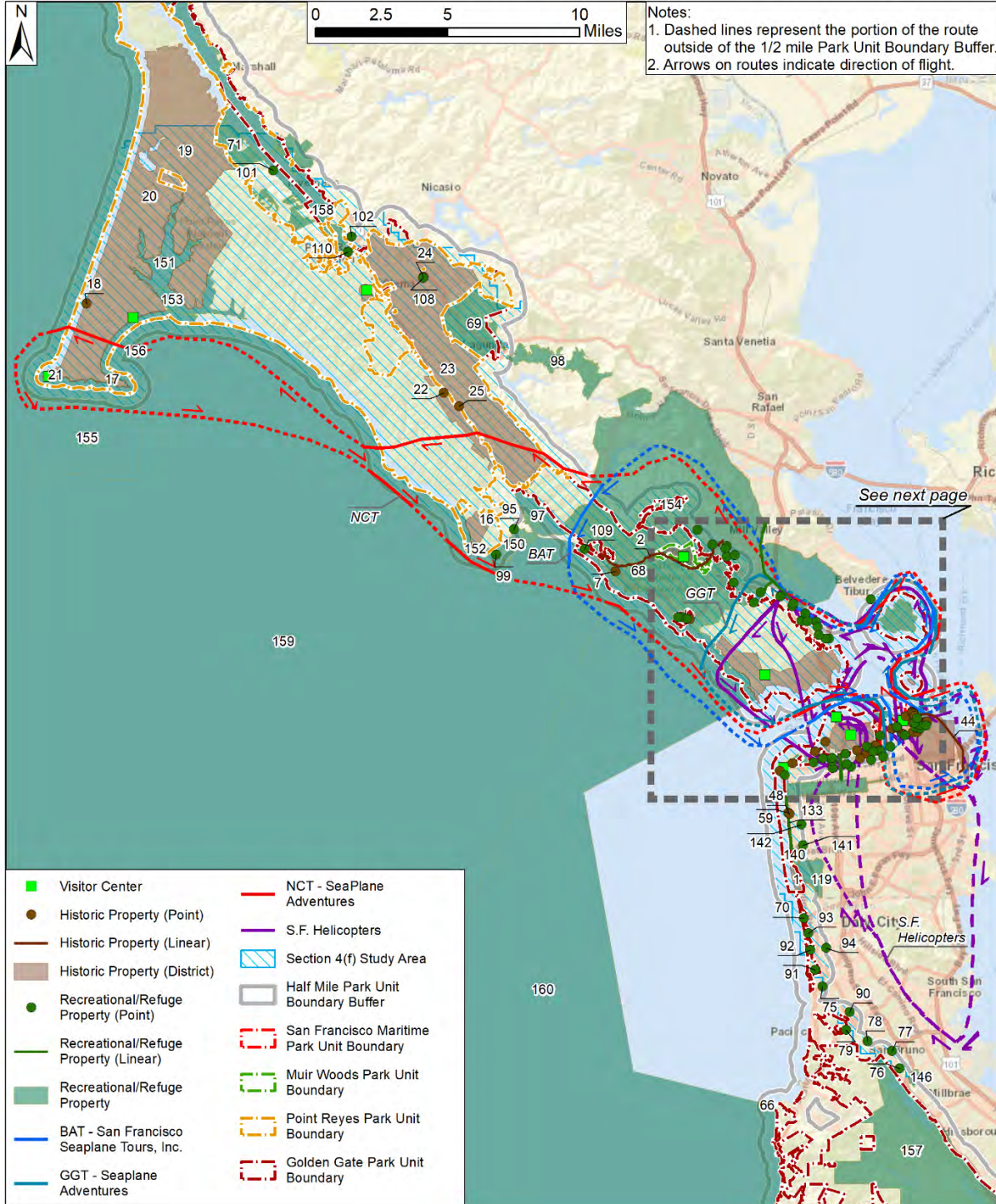
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

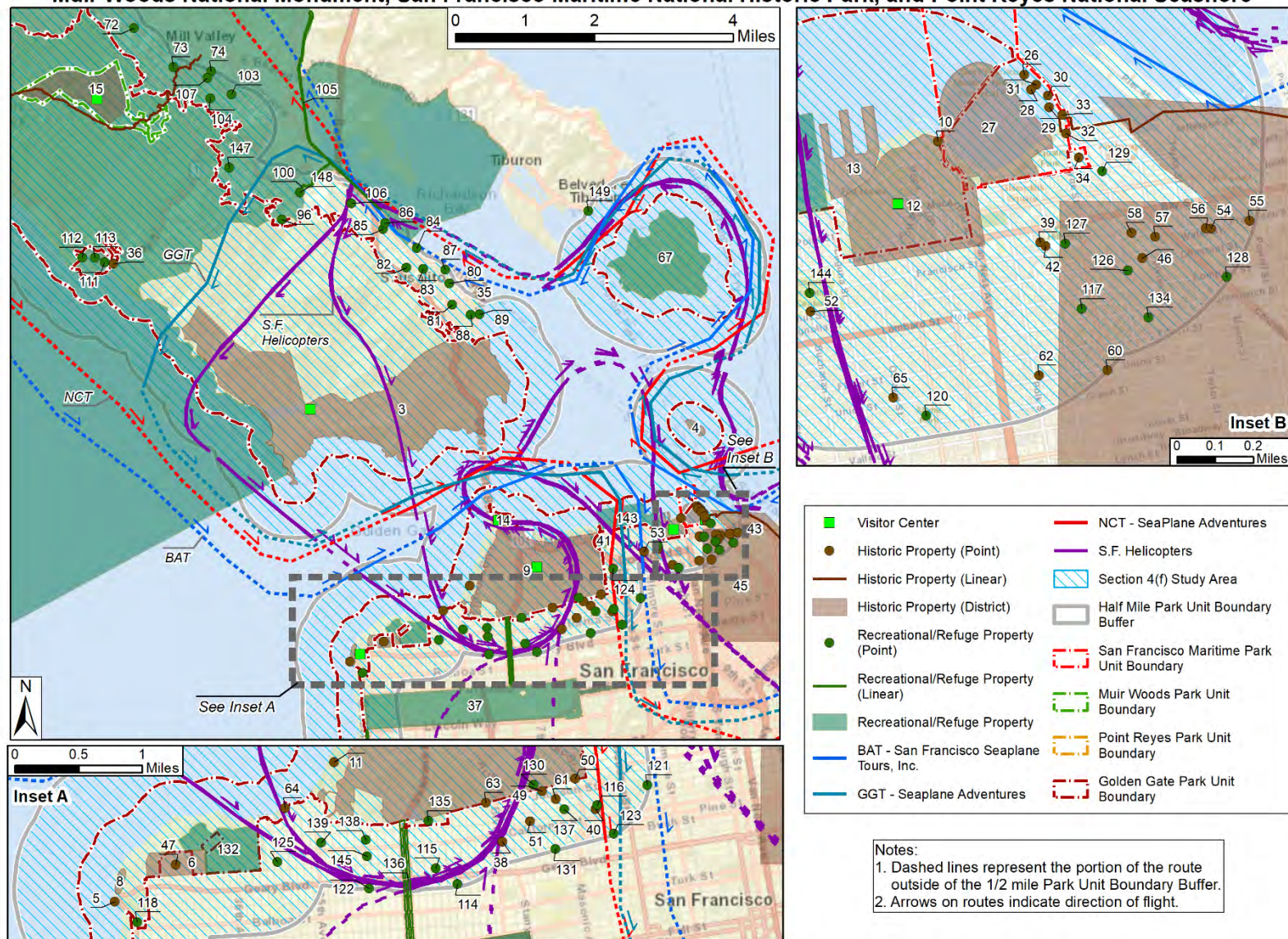
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Greg Mediati
City of South San Francisco
33 Arroyo Dr.
South San Francisco, CA 94080

Dear Greg Mediati:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Callan Park, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as "reportable": for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Callan Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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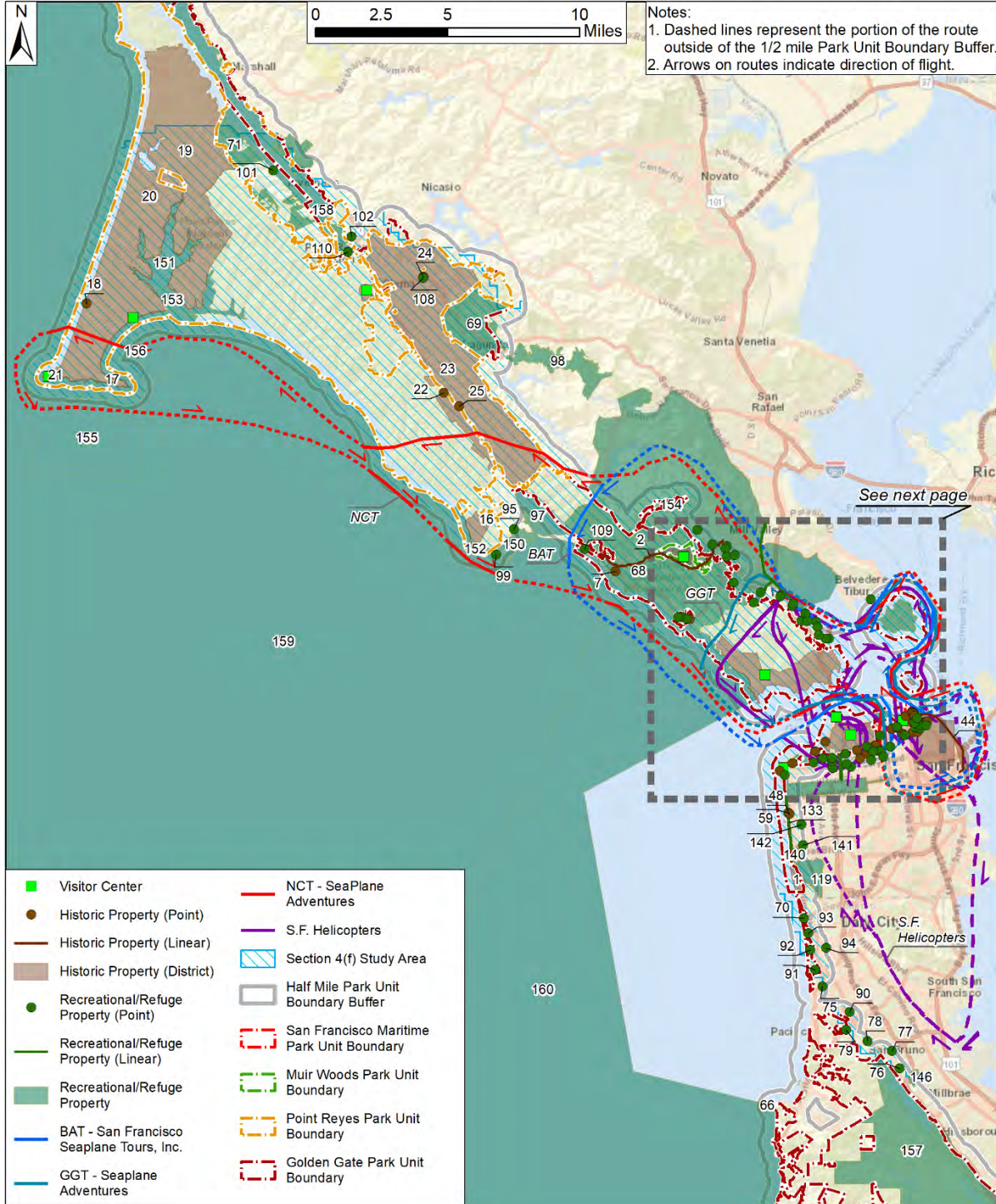
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

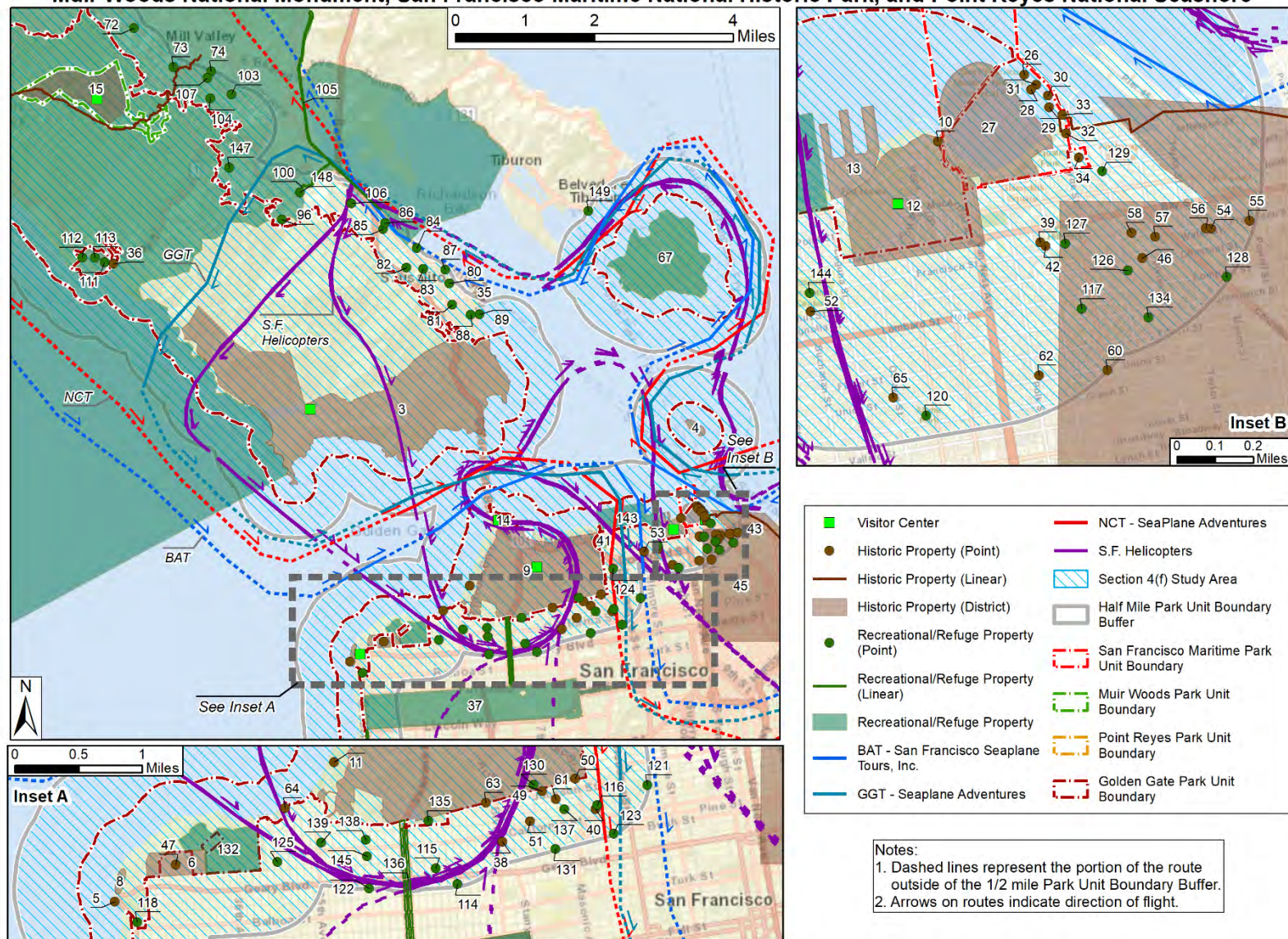
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

John Cunha
San Francisco Public Library
100 Larkin Street
San Francisco CA 94102-4733

Dear John Cunha:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to 10th Ave & Clement Mini Park and Presidio Library Mini Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be "significant" or "reportable" under FAA's policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as "reportable": for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000–1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000–2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation

of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of 10th Ave & Clement Mini Park and Presidio Library Mini Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

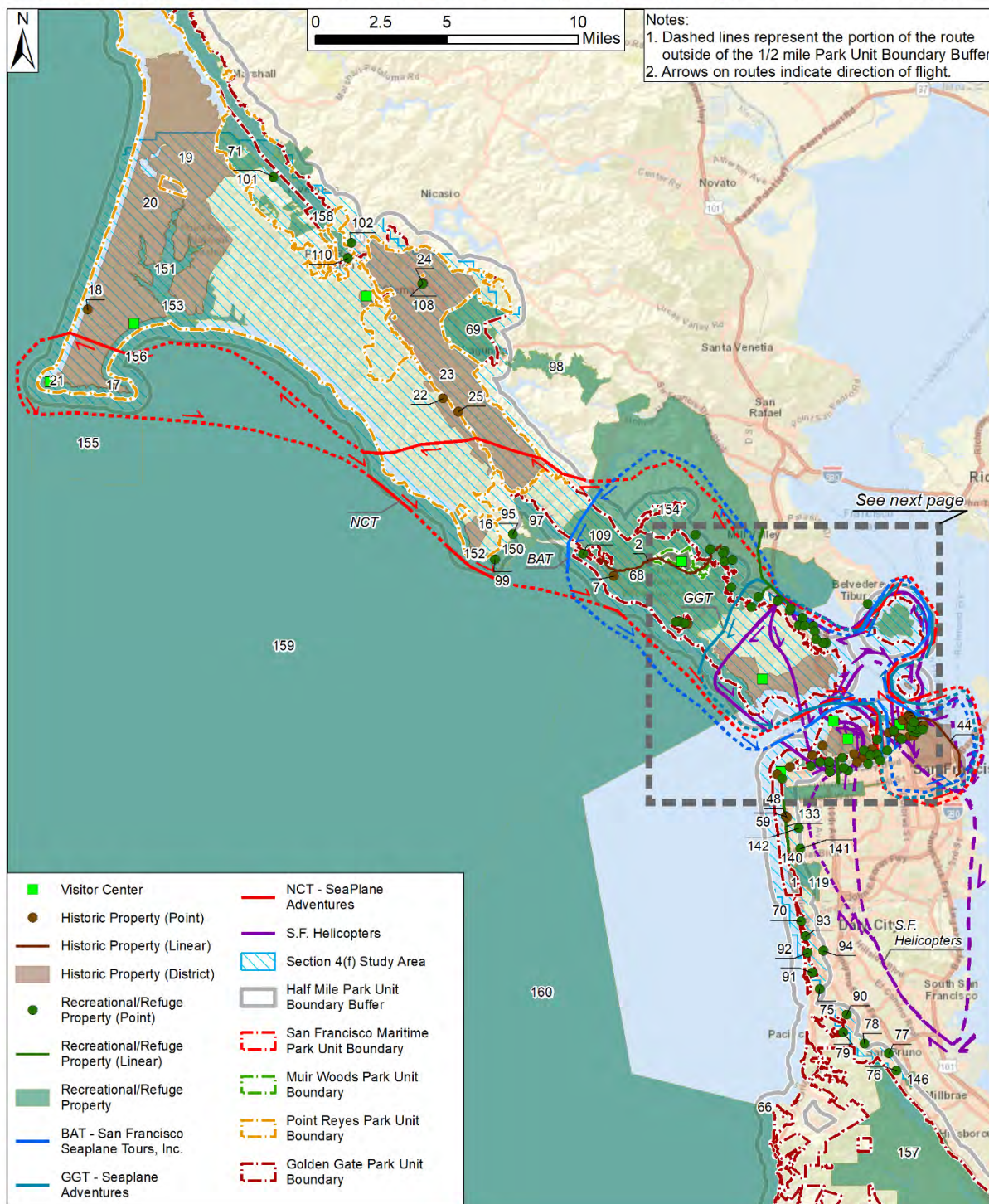
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Eric Elmore
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Office of Environment and Energy
Federal Aviation Administration

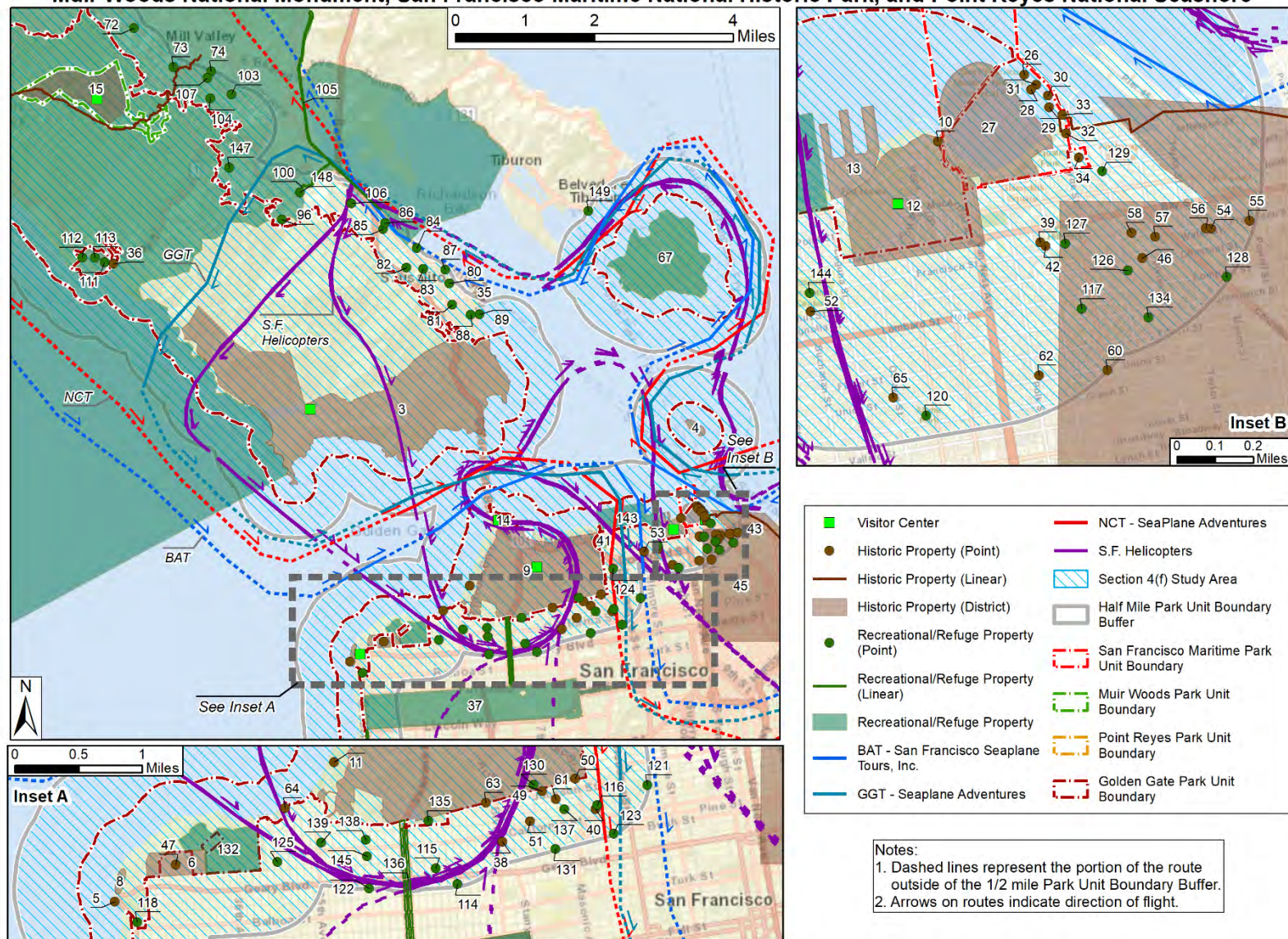
Attachments

- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

**Section 4(f) Study Area and Properties for ATMP at
Golden Gate National Recreation Area, Muir Woods National Monument,
San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWISARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Leighton Hills
Muir Beach Community Service District
19 Seascape Dr.
Muir Beach, CA 94965

Dear Leighton Hills:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Lower Park, Overlook Park, and Upper Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

⁶ See *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated

change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Lower Park, Overlook Park, and Upper Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
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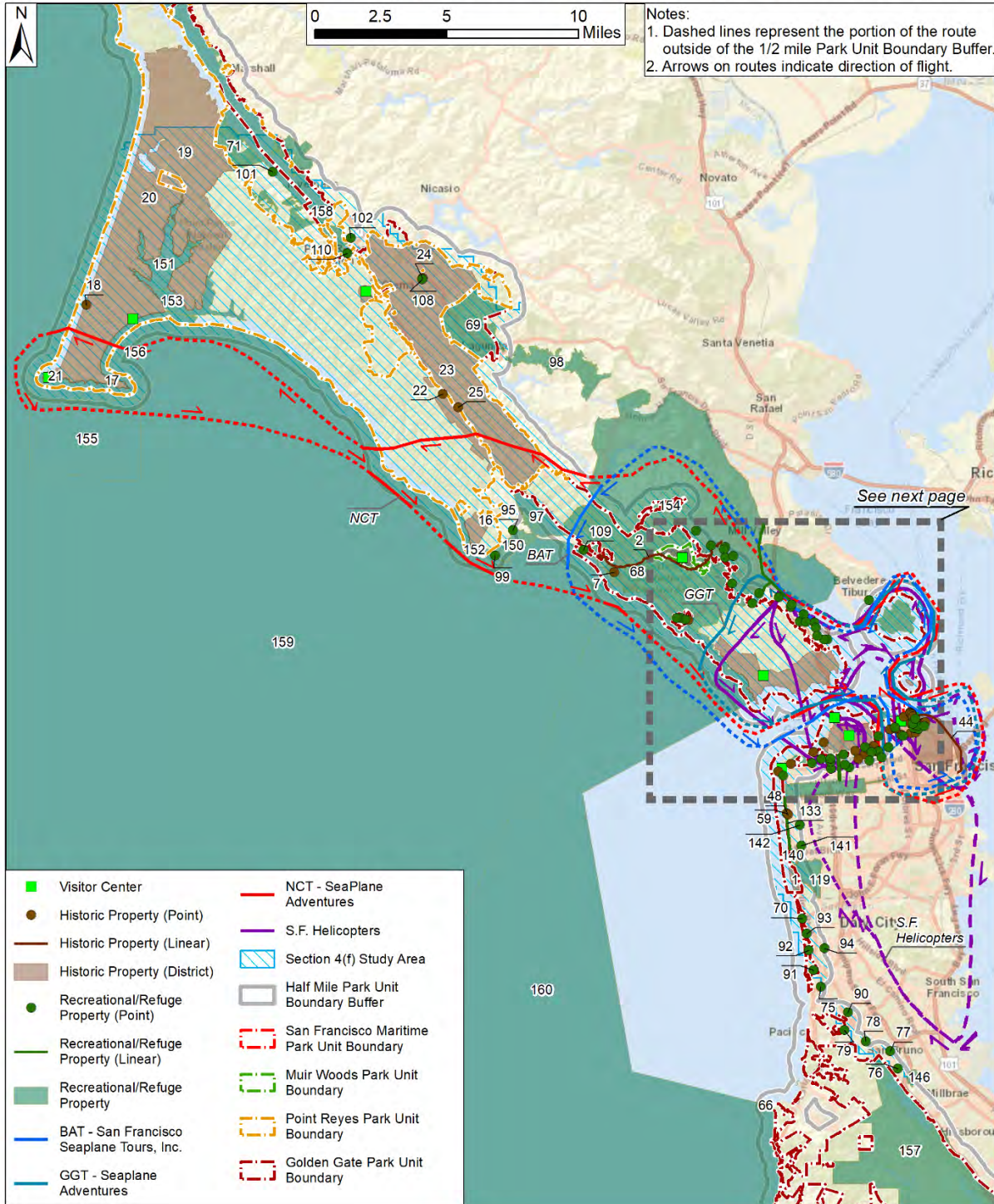
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

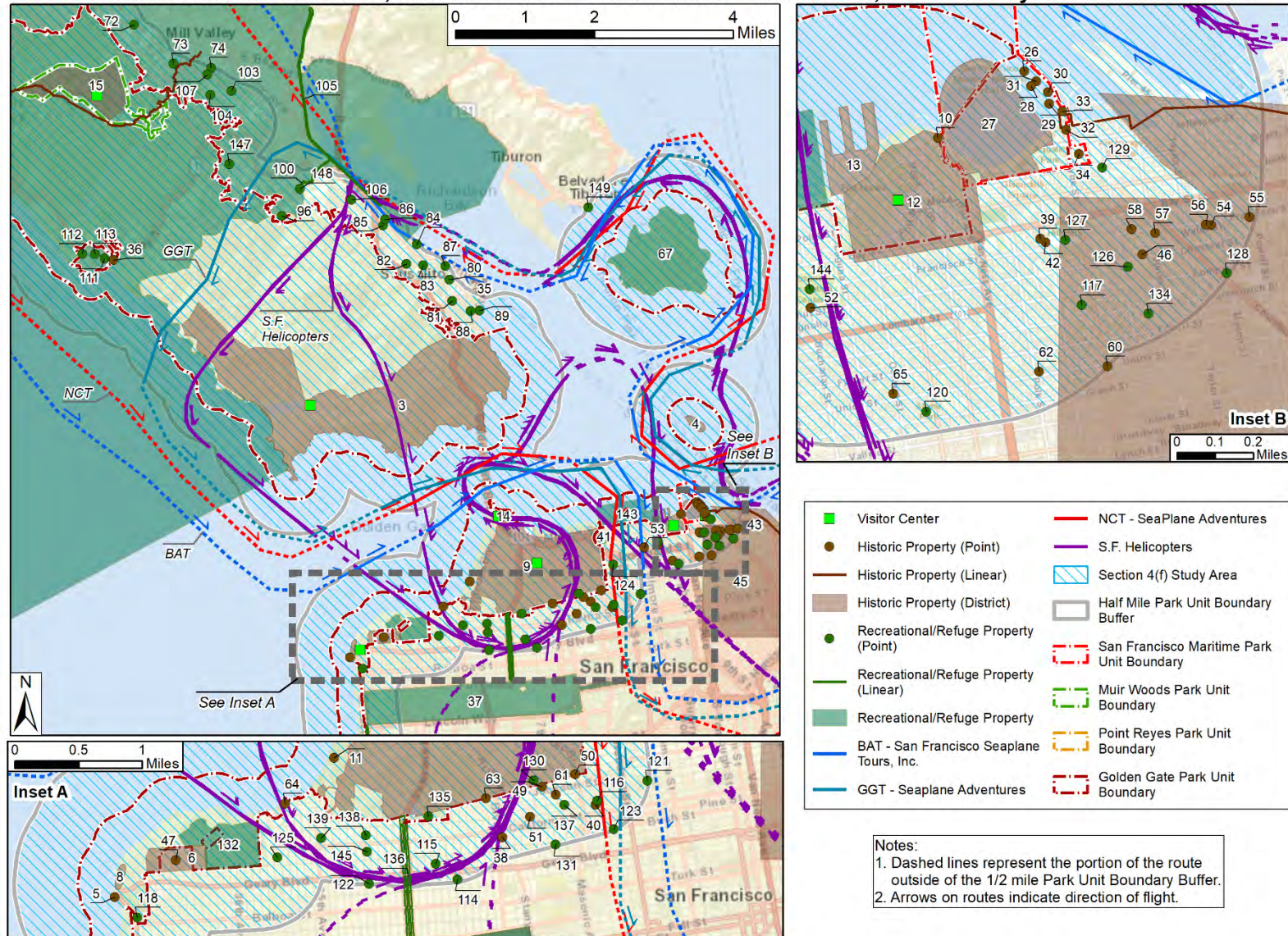
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in Table 1.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Lisa Woonick, PhD
Office of National Marine Sanctuaries
West Coast Regional Office
99 Pacific Street, Bldg. 100, Suite F
Monterey, CA 93940

Dear Lisa Woonick:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Monterey Bay National Marine Sanctuary, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a

quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA’s indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Monterey Bay National Marine Sanctuary. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
Date: 2022.09.16
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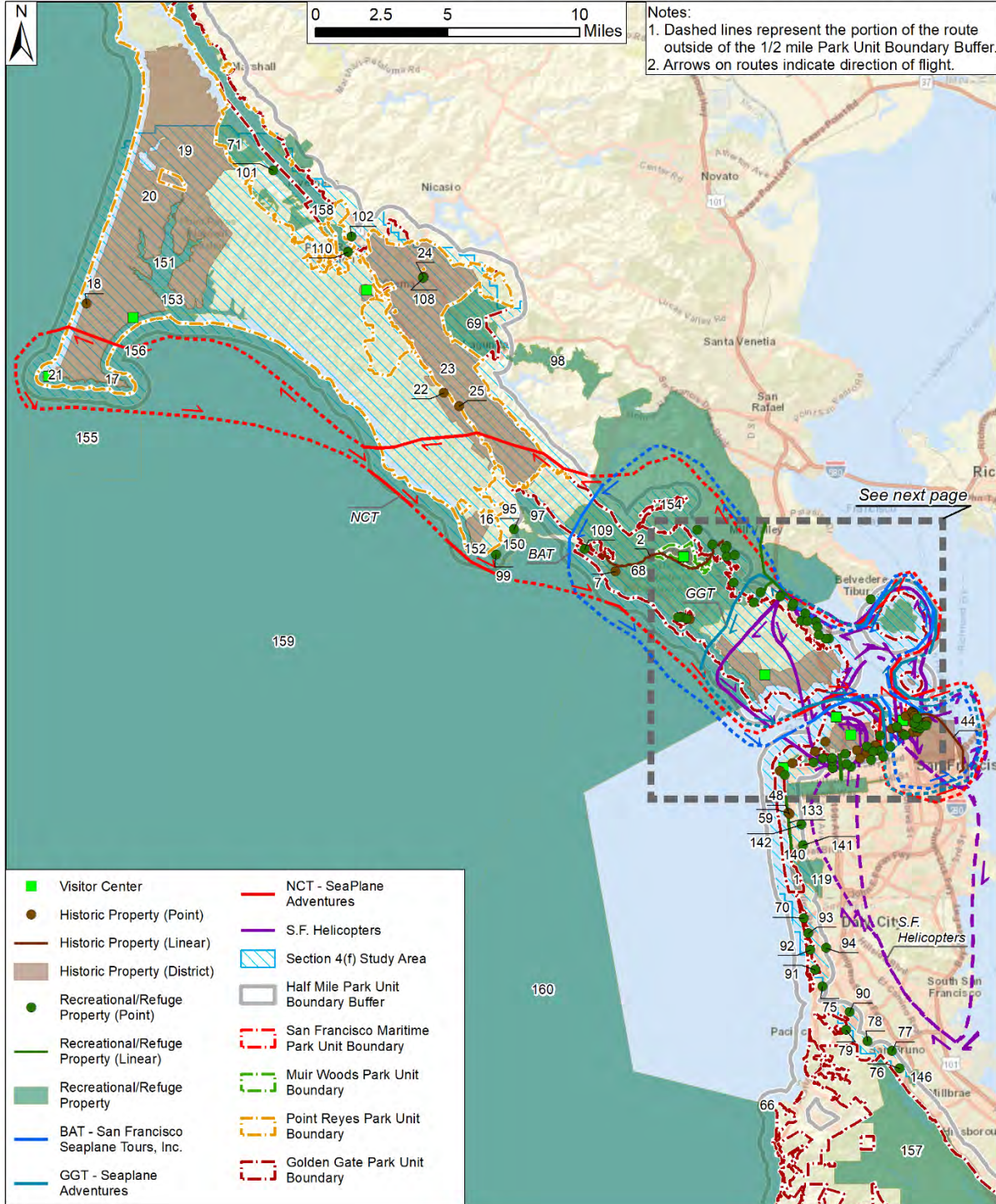
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

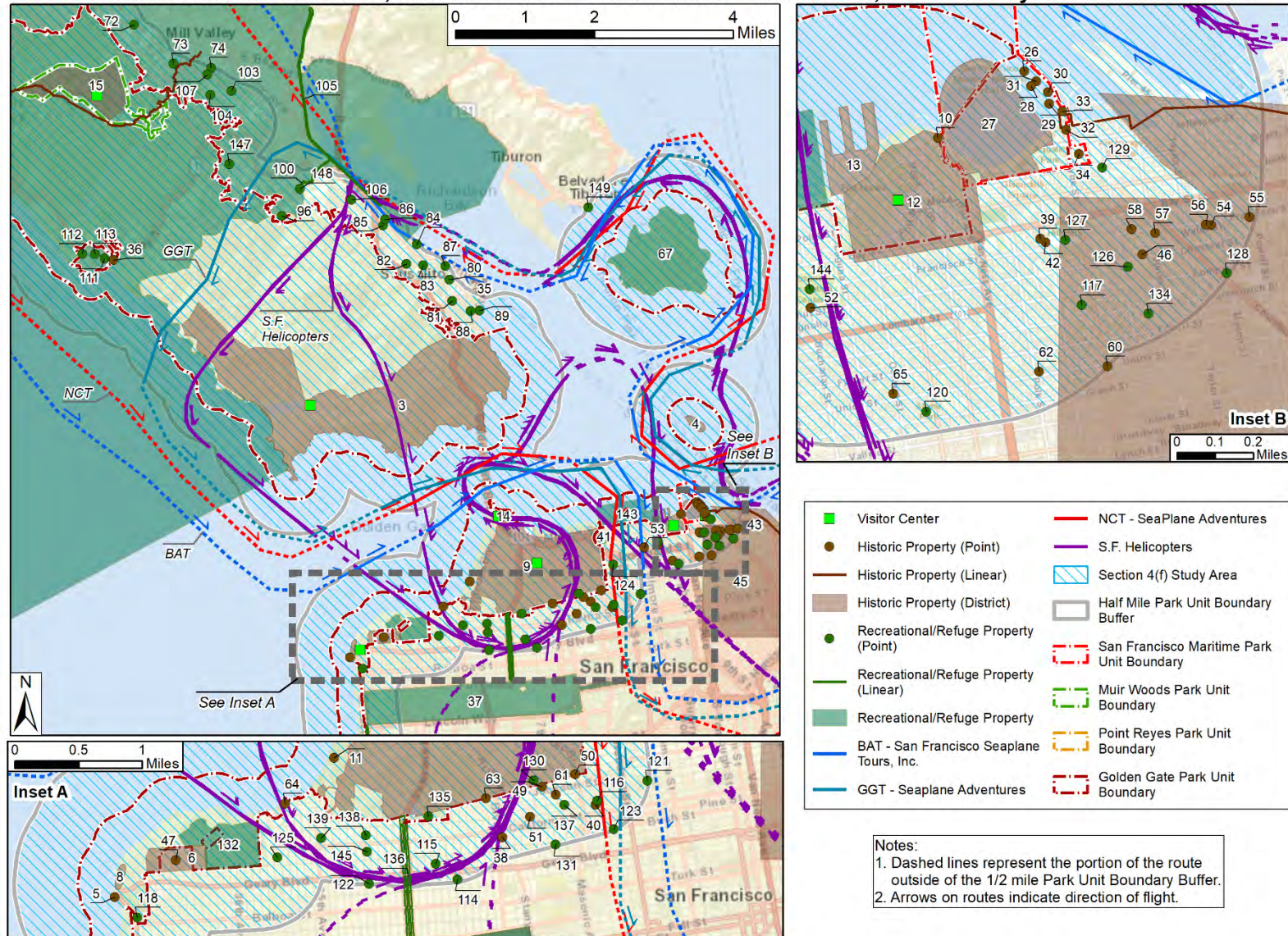
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Maria Brown
Office of National Marine Sanctuaries
West Coast Regional Office
99 Pacific Street, Bldg. 100, Suite F
Monterey, CA 93940

Dear Maria Brown:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Greater Farallones National Marine Sanctuary, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a

quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA’s indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Greater Farallones National Marine Sanctuary. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
Date: 2022.09.16
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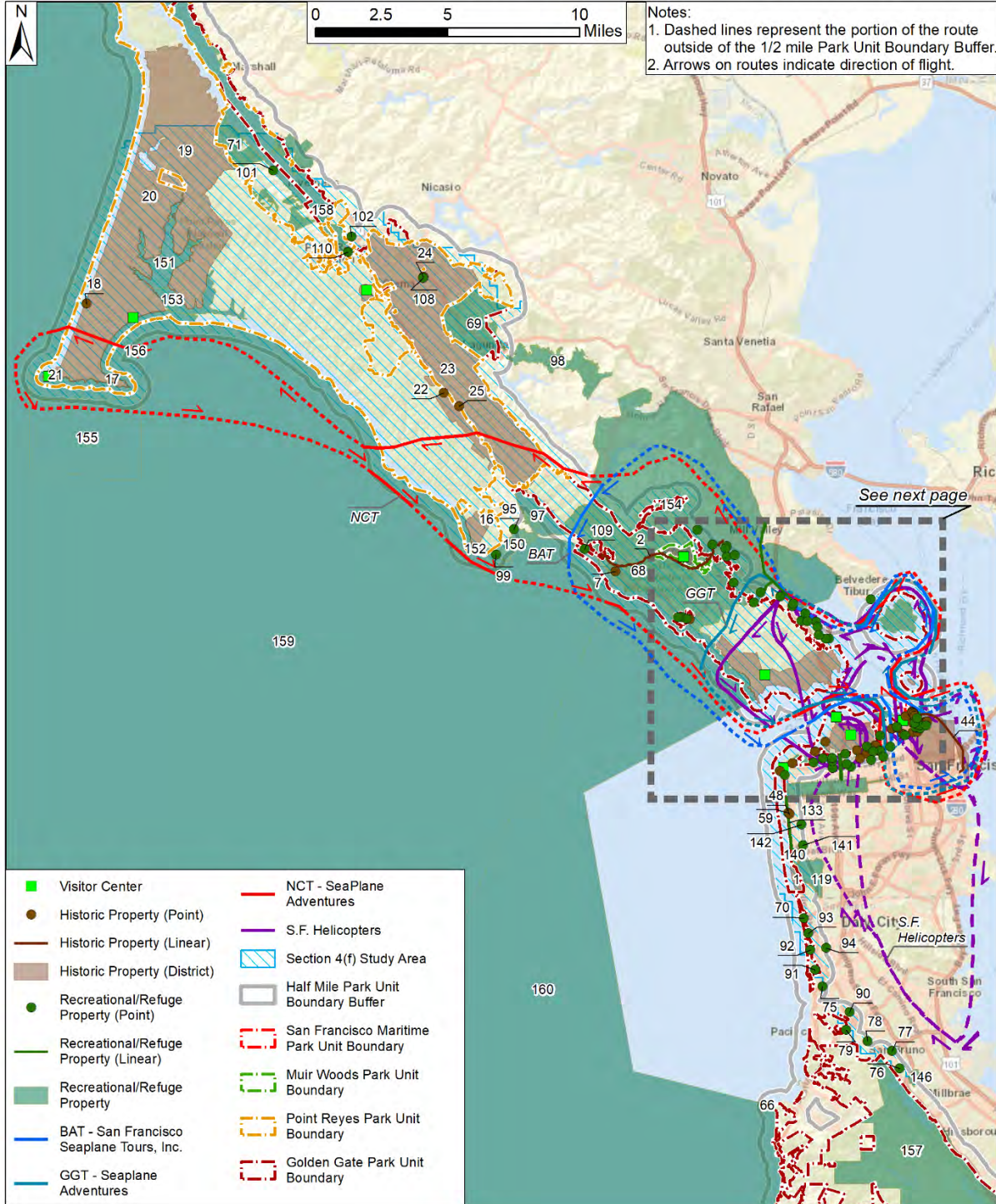
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

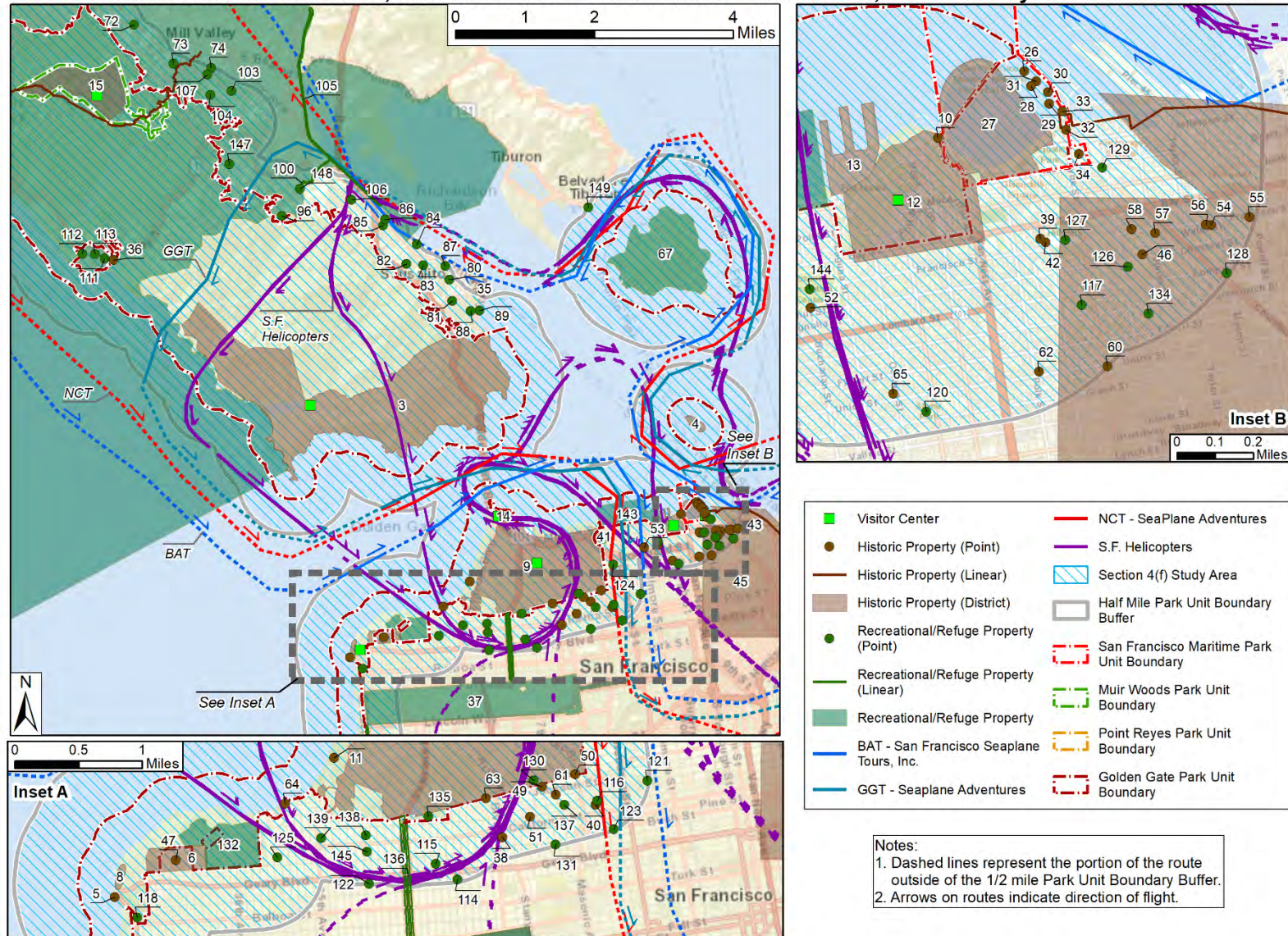
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Max Korten
Marin County Parks
3501 Civic Center Drive, Suite 260
San Rafael, CA 94903

Dear Max Korten:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Marin View, Bolinas Lagoon Open Space Preserve, Gary Giacomini Open Space Preserve, Agate Beach, Charles F. McGlashan Pathway, Eldrid Preserve, Homestead Valley Community Center, Homestead Valley Open Space, Mill Valley / Sausalito Path, Rocky Graham Park, Stolte and Three Groves Park, Unnamed County Park, Upton Beach, Chicken Ranch Beach, and Whitehouse Pool, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an

annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Marin View, Bolinas Lagoon Open Space Preserve, Gary Giacomini Open Space Preserve, Agate Beach, Charles F. McGlashan Pathway, Eldrid Preserve, Homestead Valley Community Center, Homestead Valley Open Space, Mill Valley / Sausalito Path, Rocky Graham Park, Stolte and Three Groves Park, Unnamed County Park, Upton Beach, Chicken Ranch Beach, and Whitehouse Pool. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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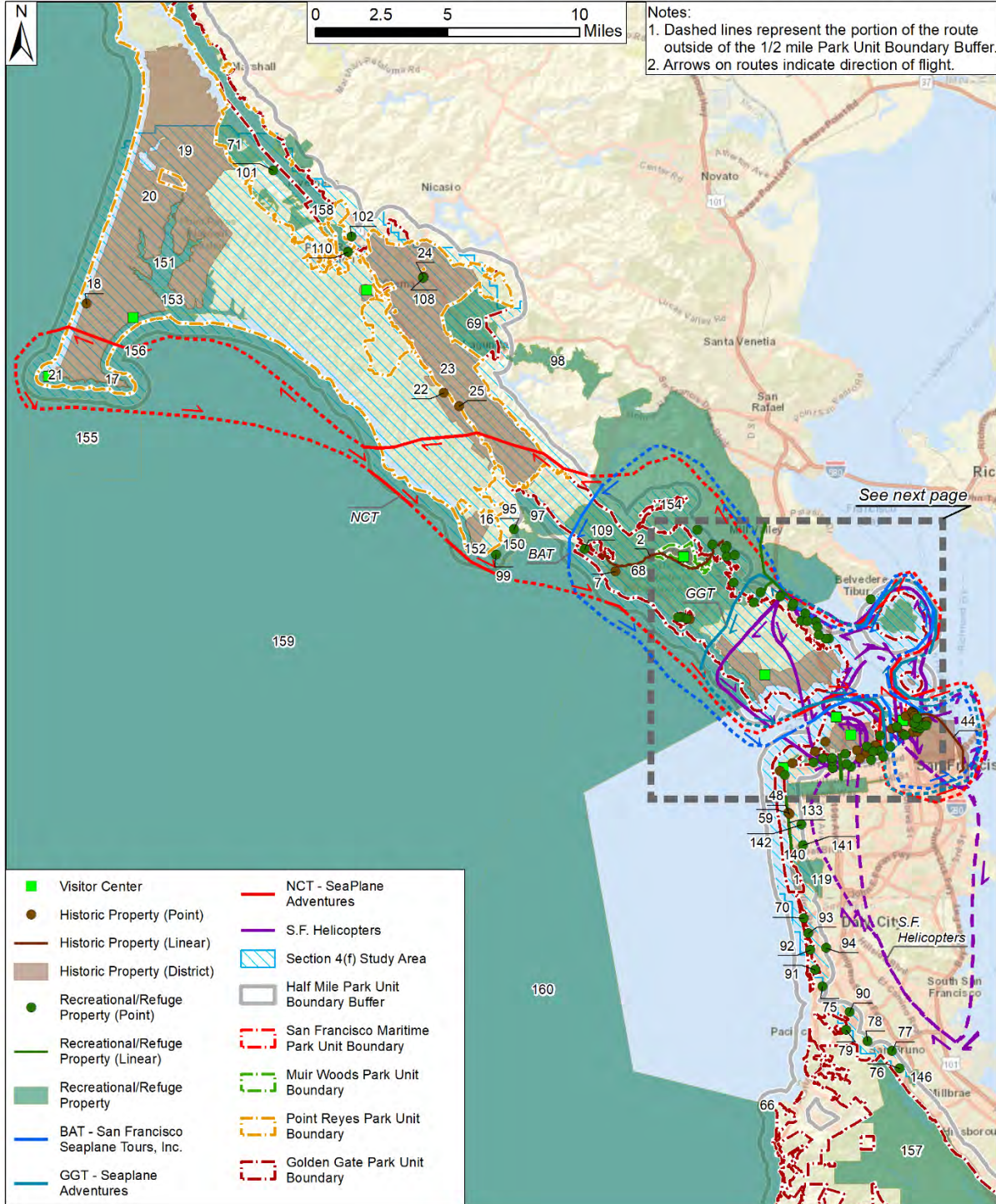
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

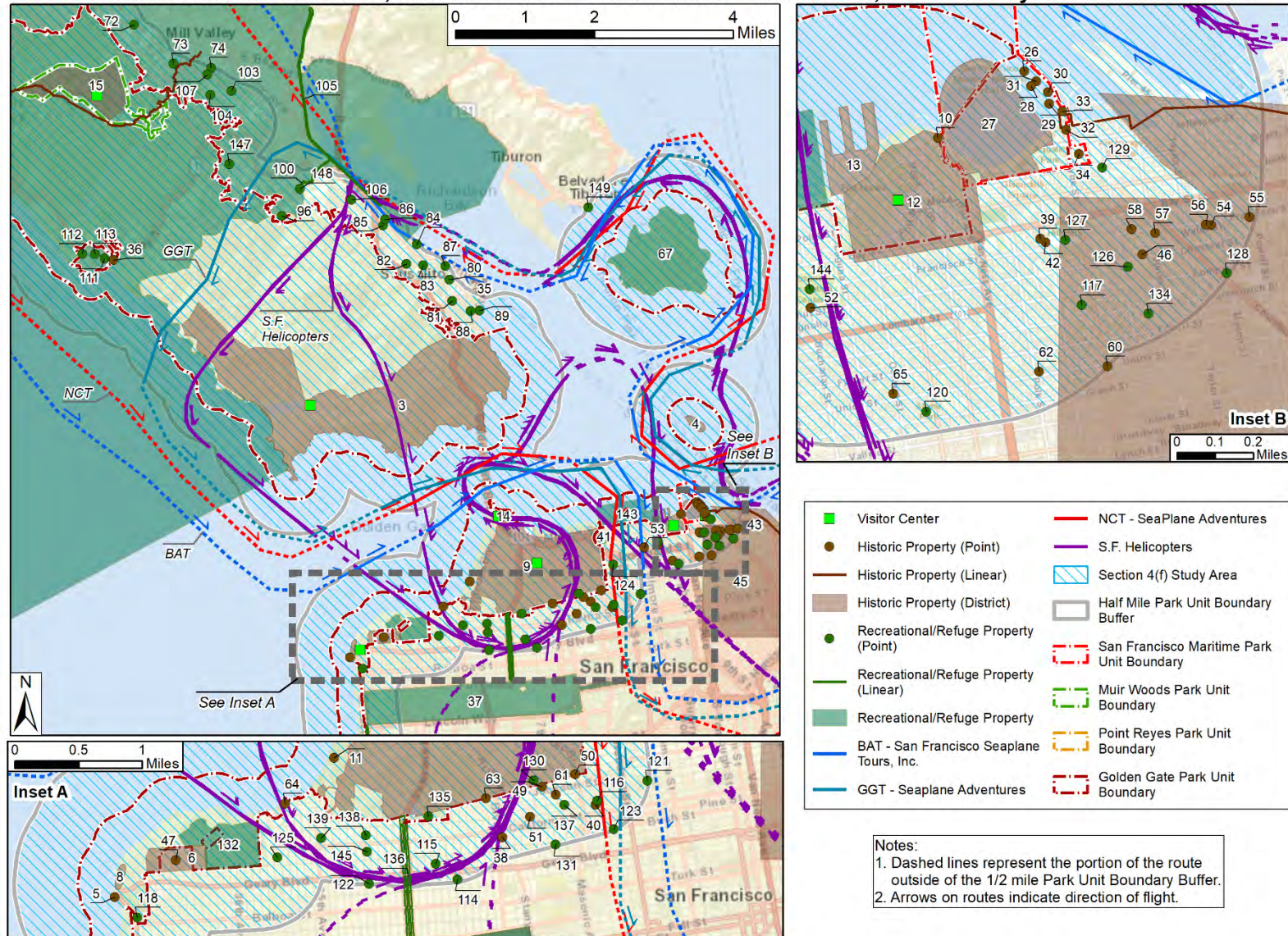
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Mesa Park Board
Firehouse Community Park Agency
Mesa Park Board
PO Box 461
Bollinas, CA. 94924

Dear Mesa Park Board:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Mesa Park, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a

quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Mesa Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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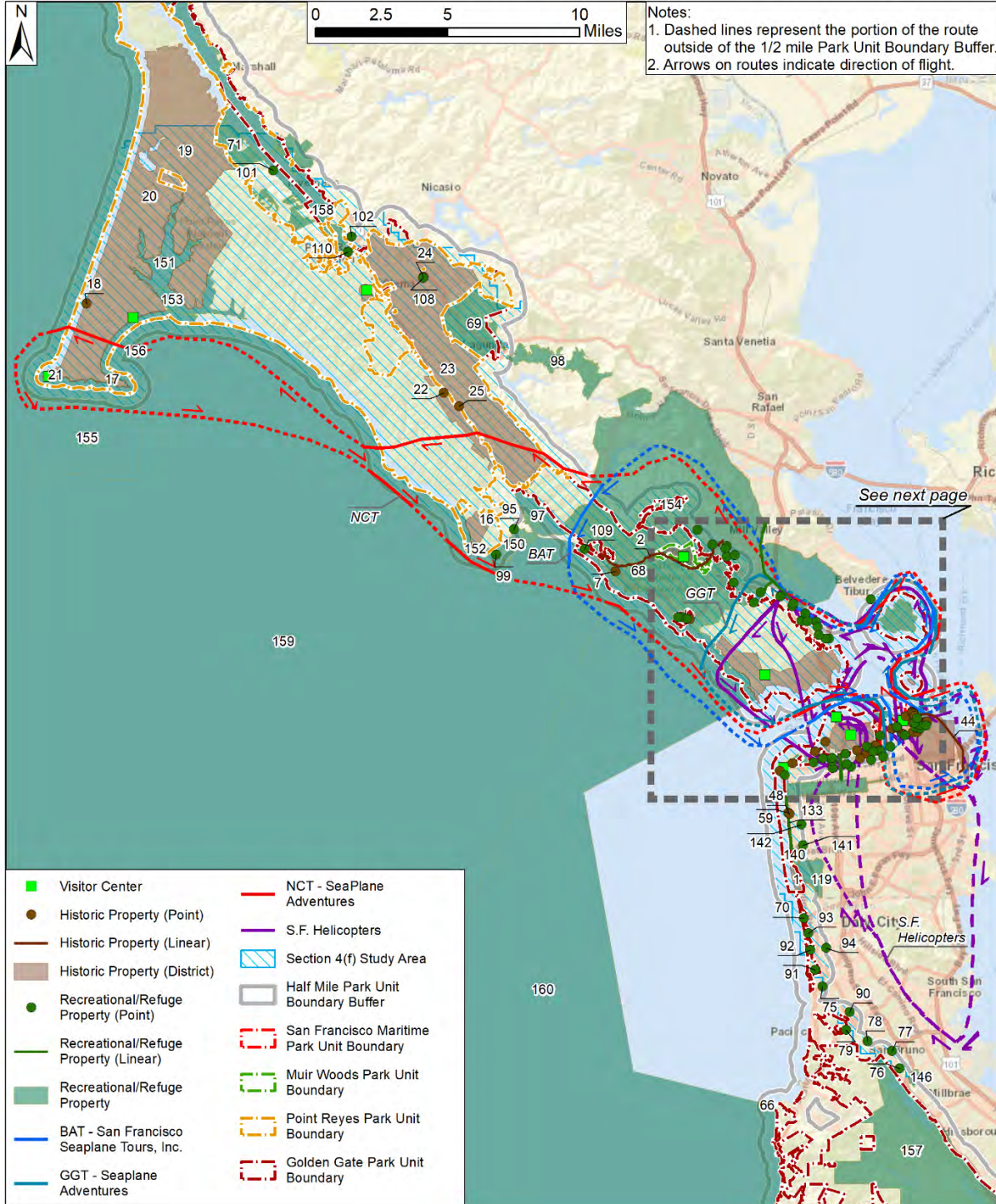
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

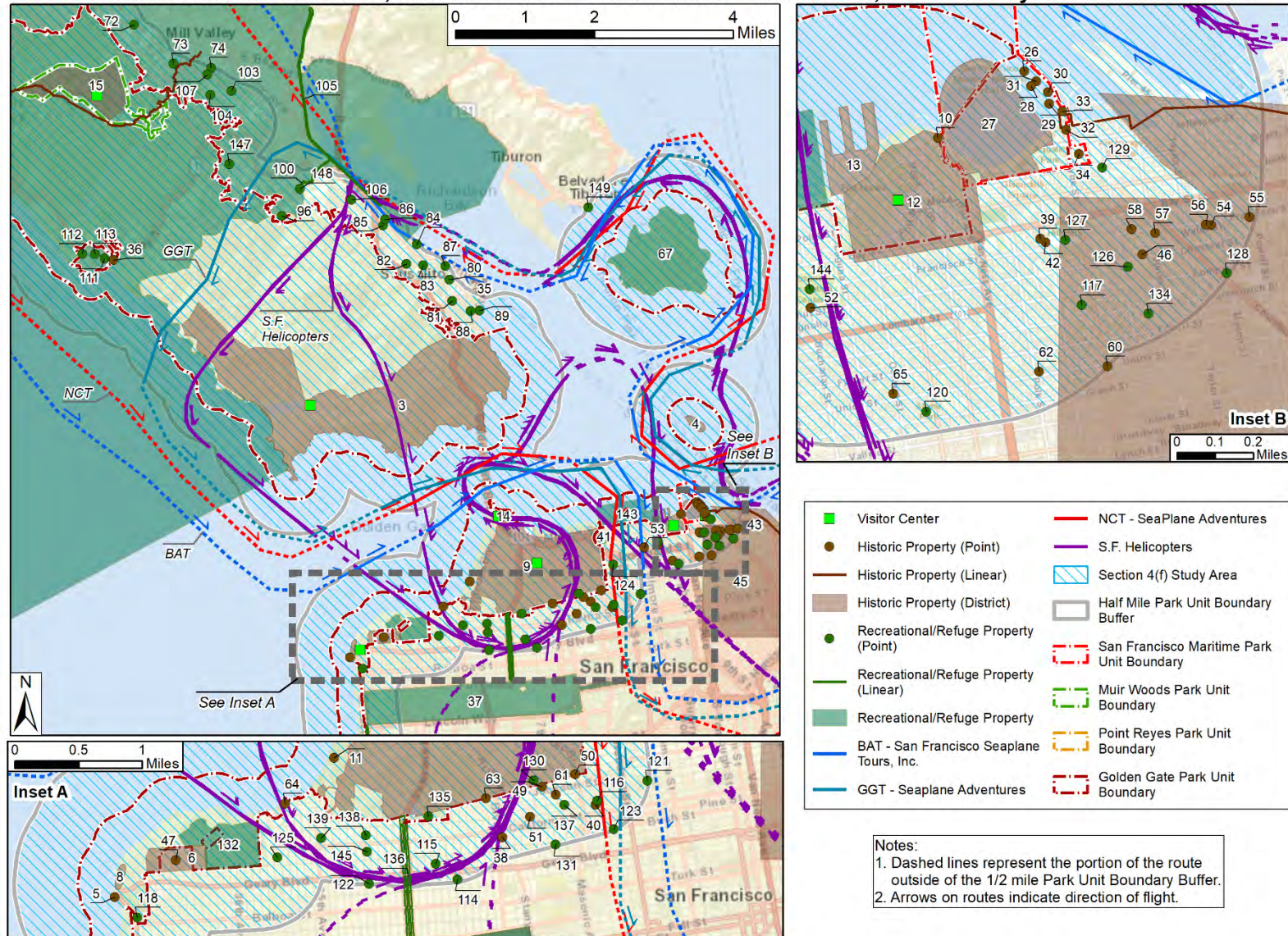
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Michael Perez
City of Pacifica
540 Crespi Dr.
Pacifica, CA 94044

Dear Michael Perez:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Fairmont West Park, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>
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For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Fairmont West Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
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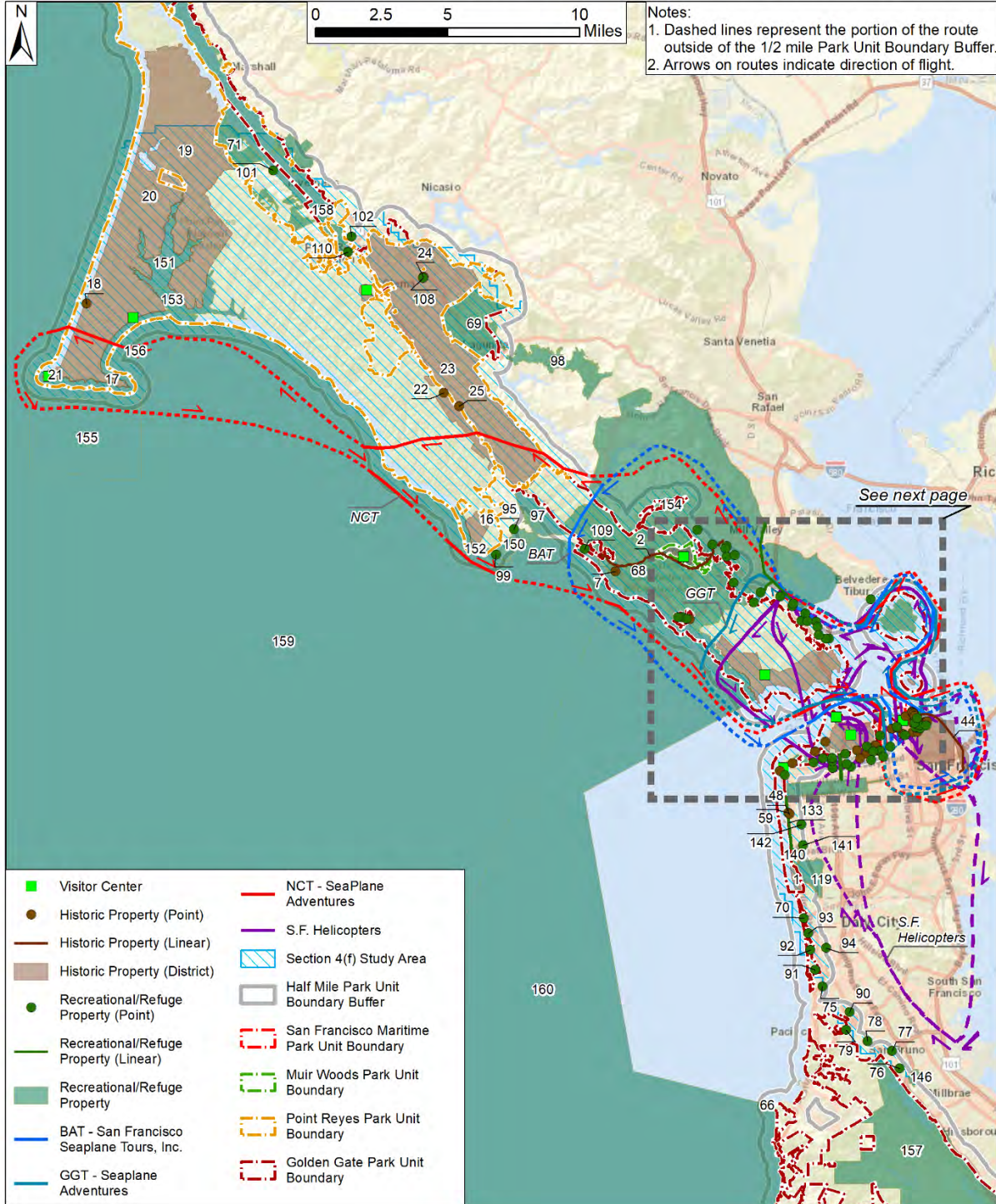
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

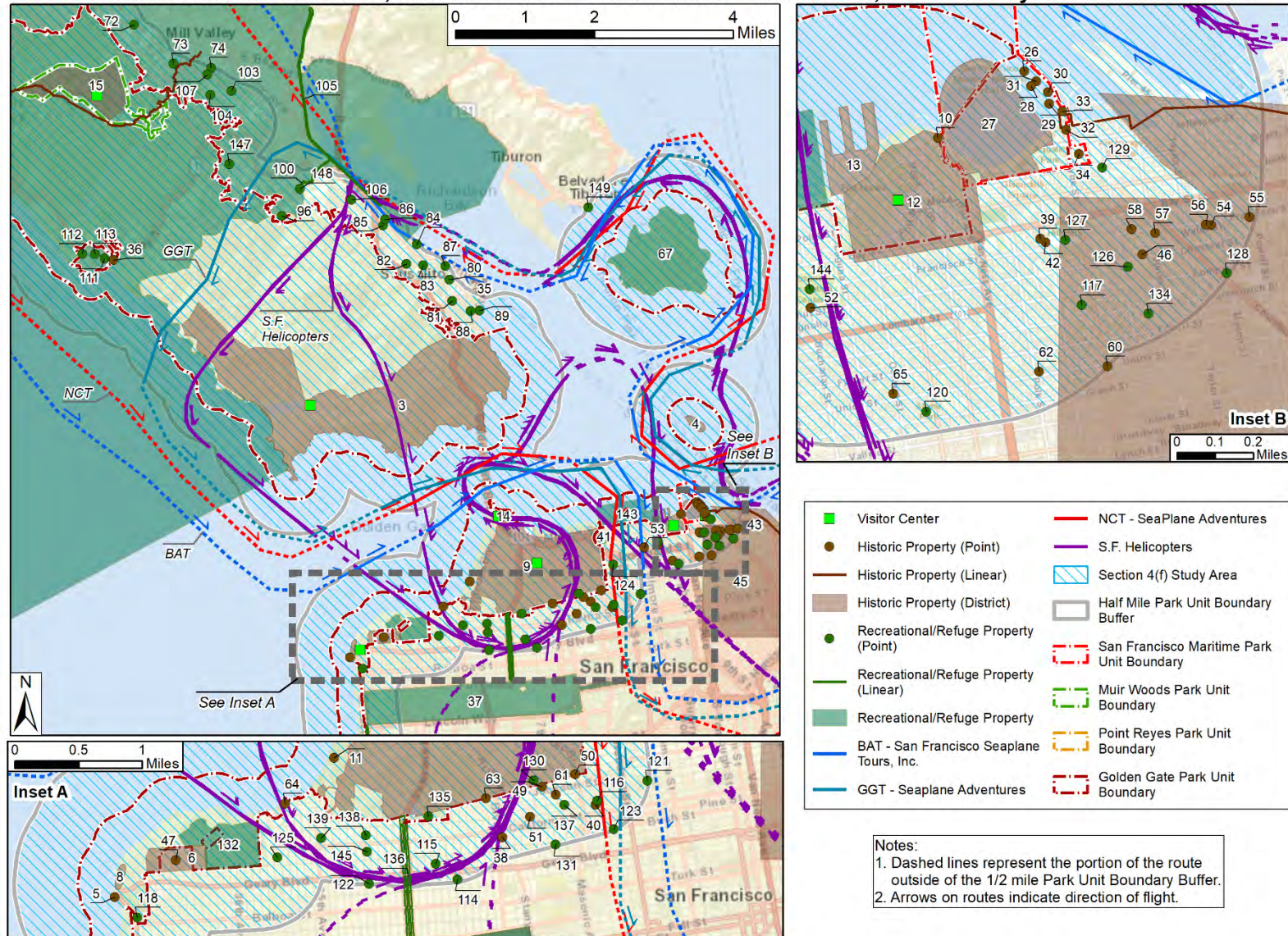
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Newsha K. Ajami
San Francisco Public Utilities Commission
525 Golden Gate Avenue
San Francisco, CA 94102

Dear Newsha K. Ajami:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Alice Marble Tennis Courts, Balboa Natural Area, and Lake Merced Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

⁶ See *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated

change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Alice Marble Tennis Courts, Balboa Natural Area, and Lake Merced Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
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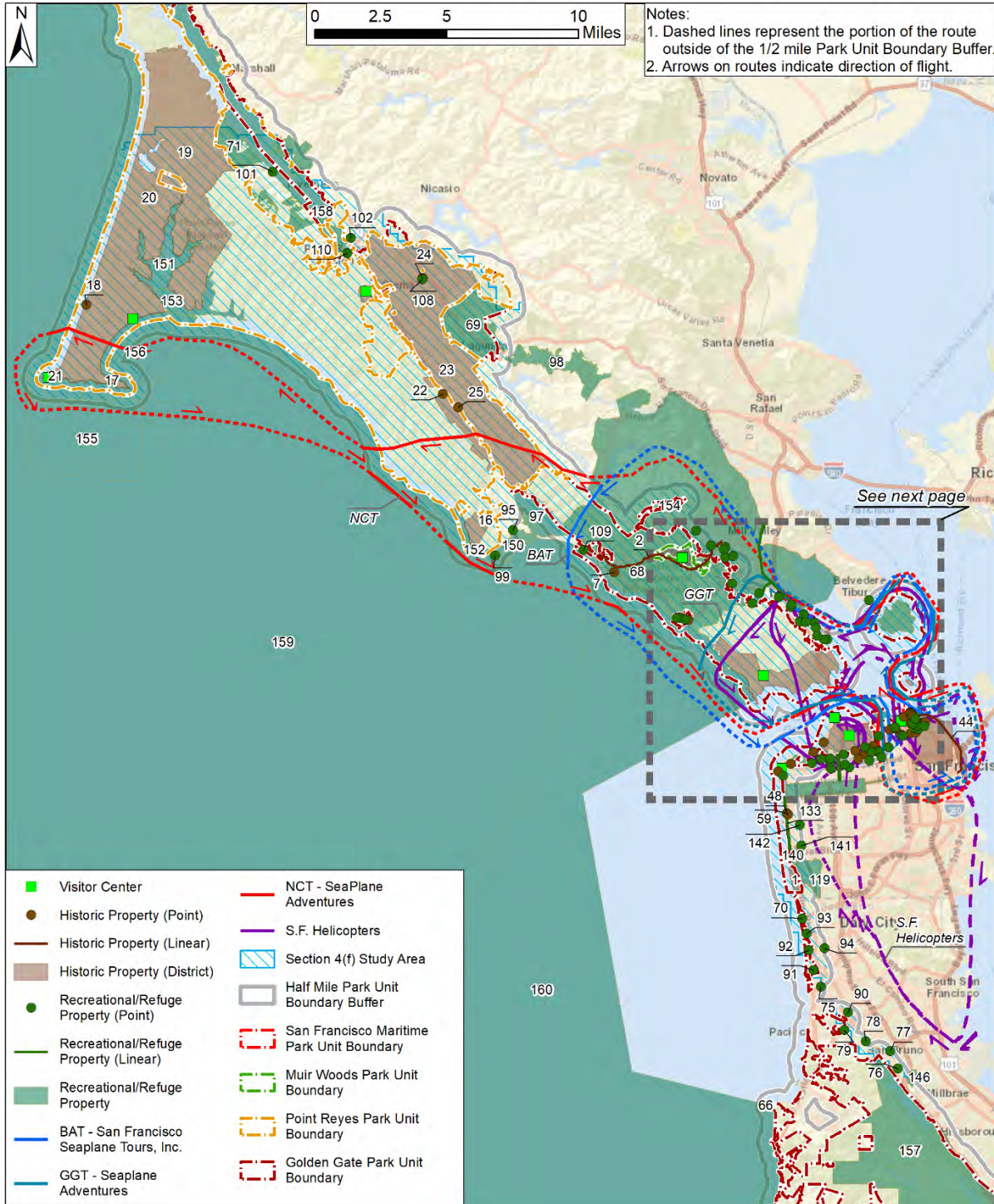
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

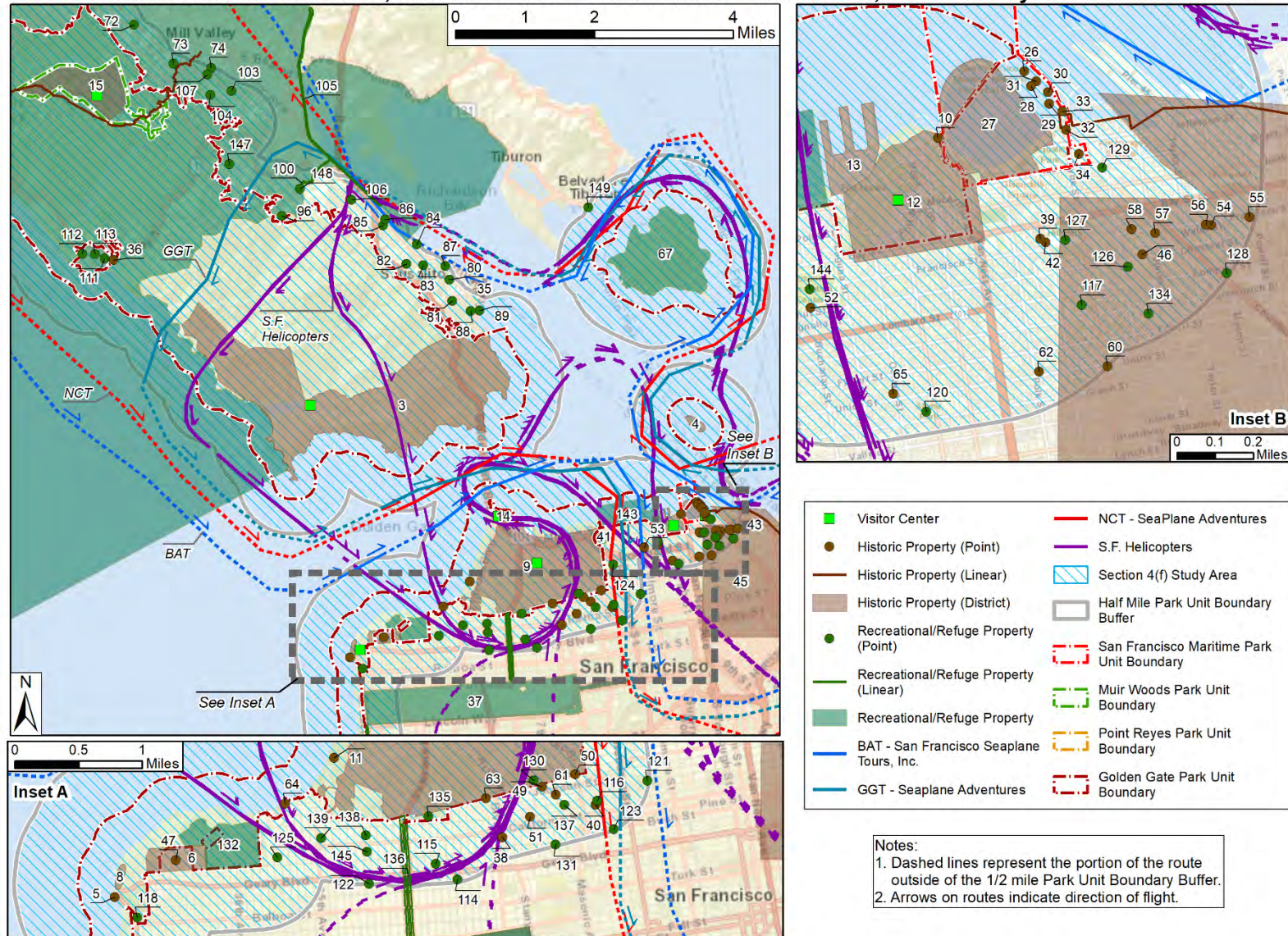
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Nicholas Calderon
San Mateo County Department of Parks
455 County Center, 4th Floor
Redwood City, CA 94063

Dear Nicholas Calderon:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Junipero Serra Park, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

⁶ See *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated

change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Junipero Serra Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
Date: 2022.09.16
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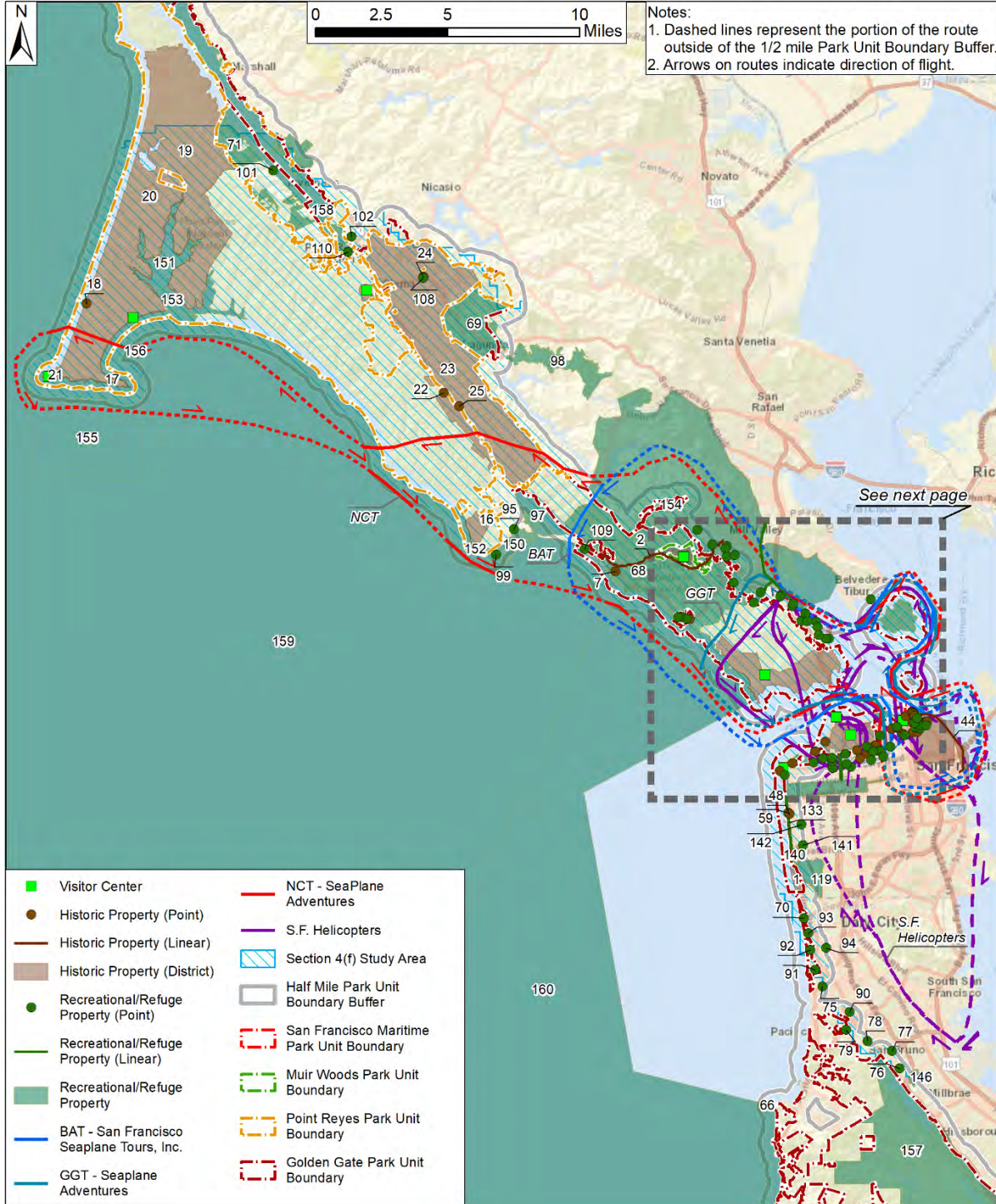
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

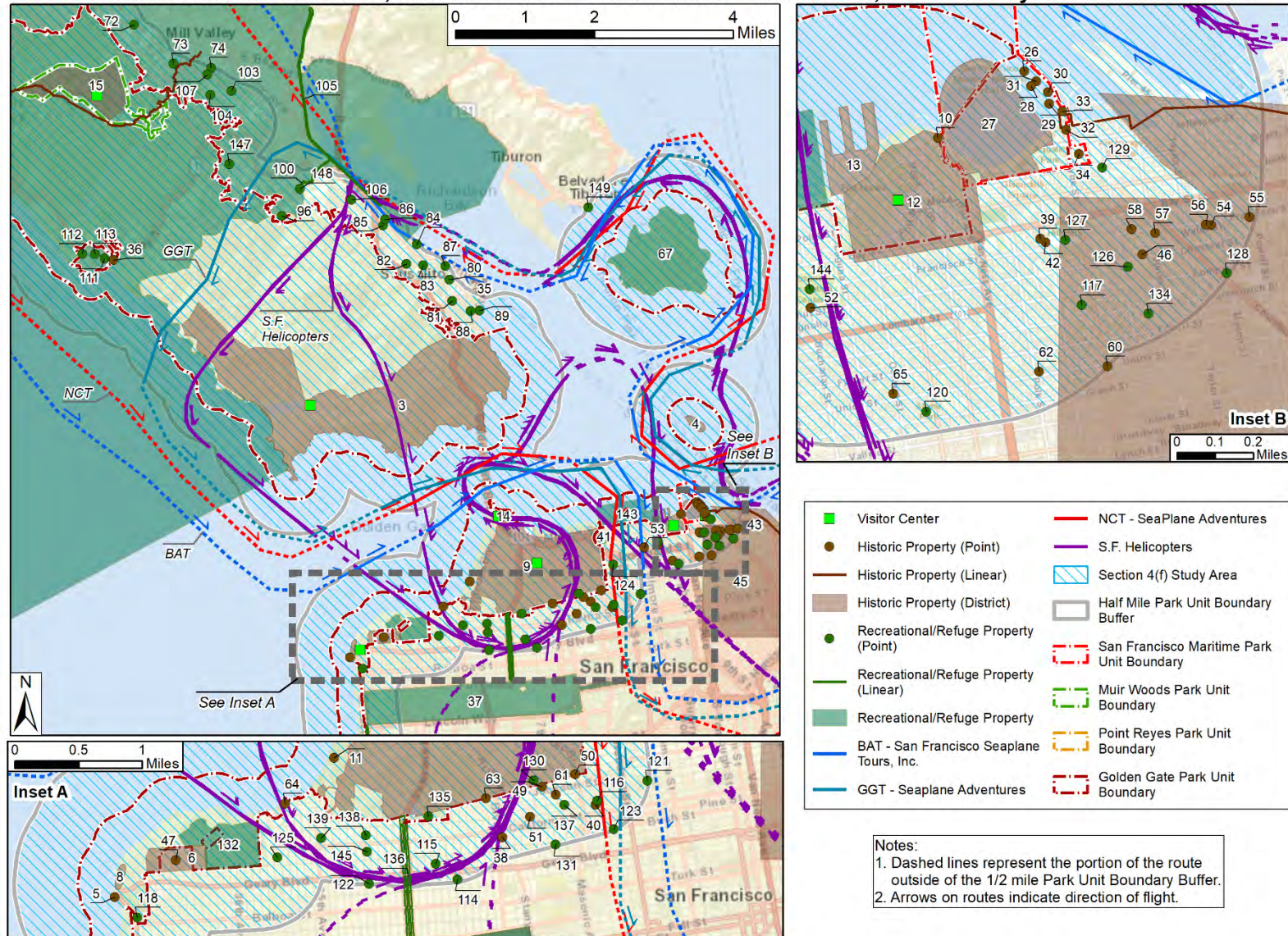
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B Table 1.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Patrick Kerslake
Town of Tiburon
1505 Tiburon Boulevard
Tiburon, CA 94920

Dear Patrick Kerslake:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Pt. Tiburon Shoreline Park, which is a protected property under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

⁶ See *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated

change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Pt. Tiburon Shoreline Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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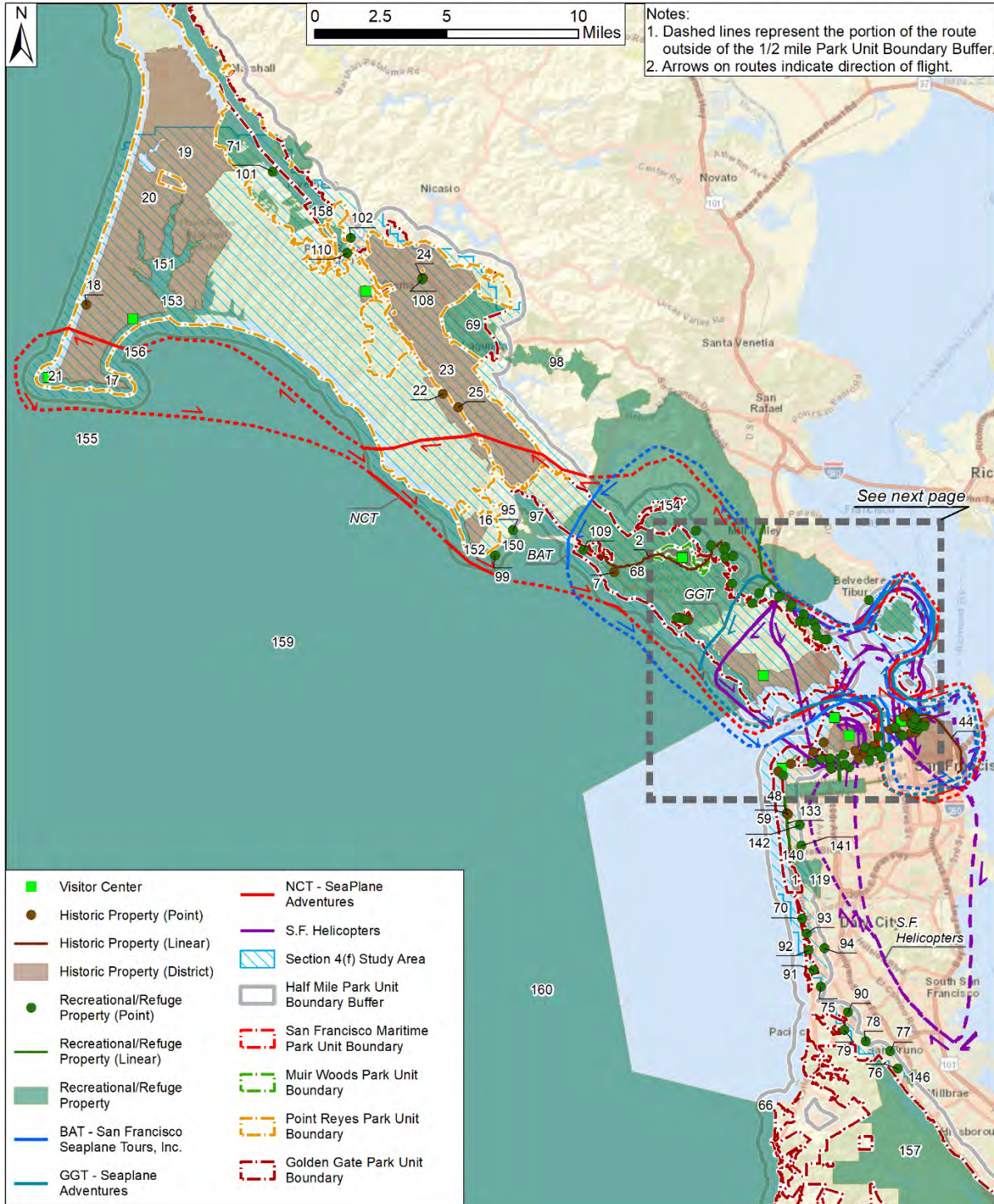
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

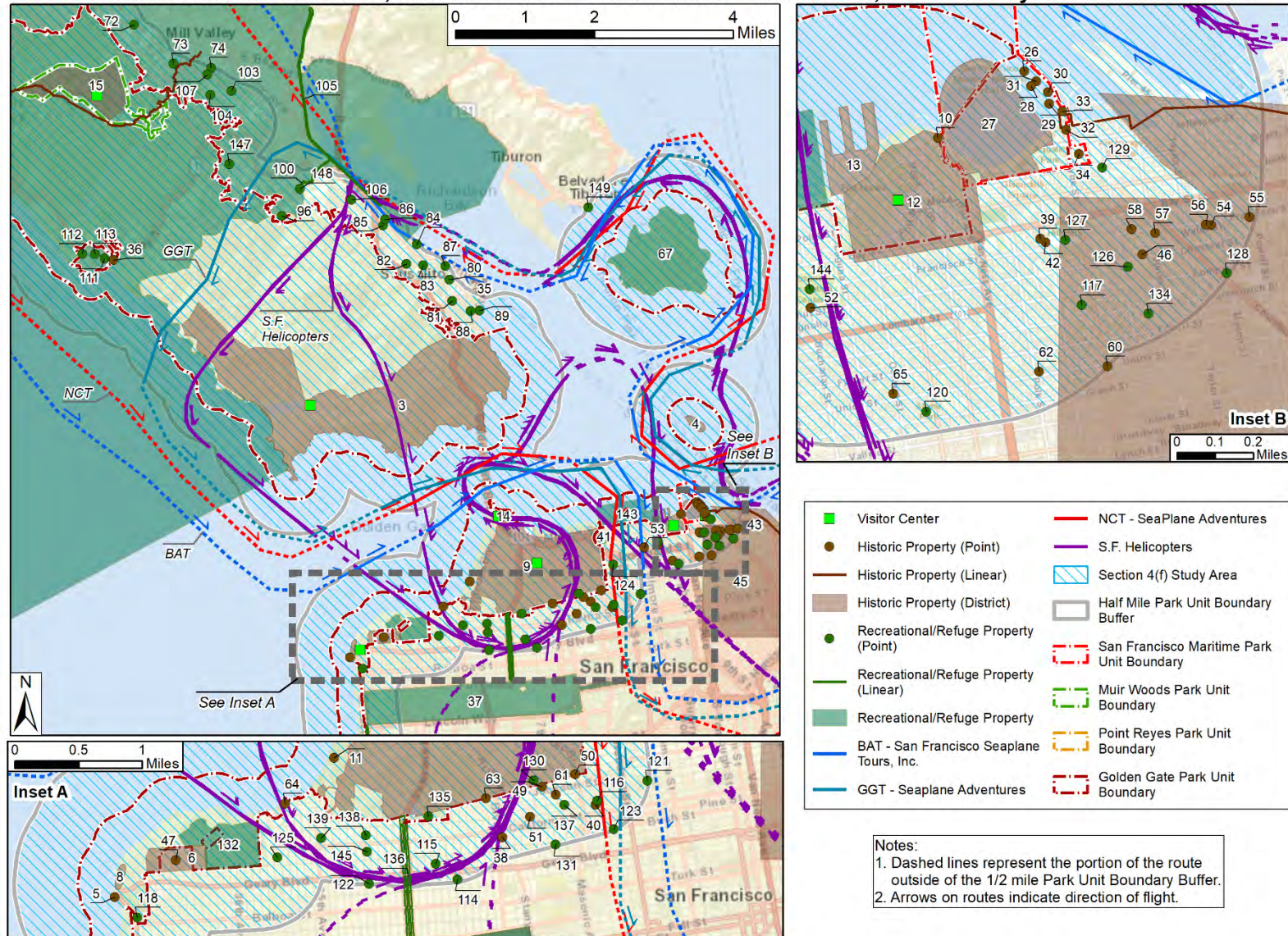
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army instillation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Romeo Benson
Daly City
111 Lake Merced Boulevard
Daly City, CA 94015

Dear Romeo Benson:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Longview Park, Northridge Park, Palisades Park, and Westmoor Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility

and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, *In re Public Employees for Environmental Responsibility, et al.*, Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument's resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB</p>

	level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. ³
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

⁶ See *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated

change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Longview Park, Northridge Park, Palisades Park, and Westmoor Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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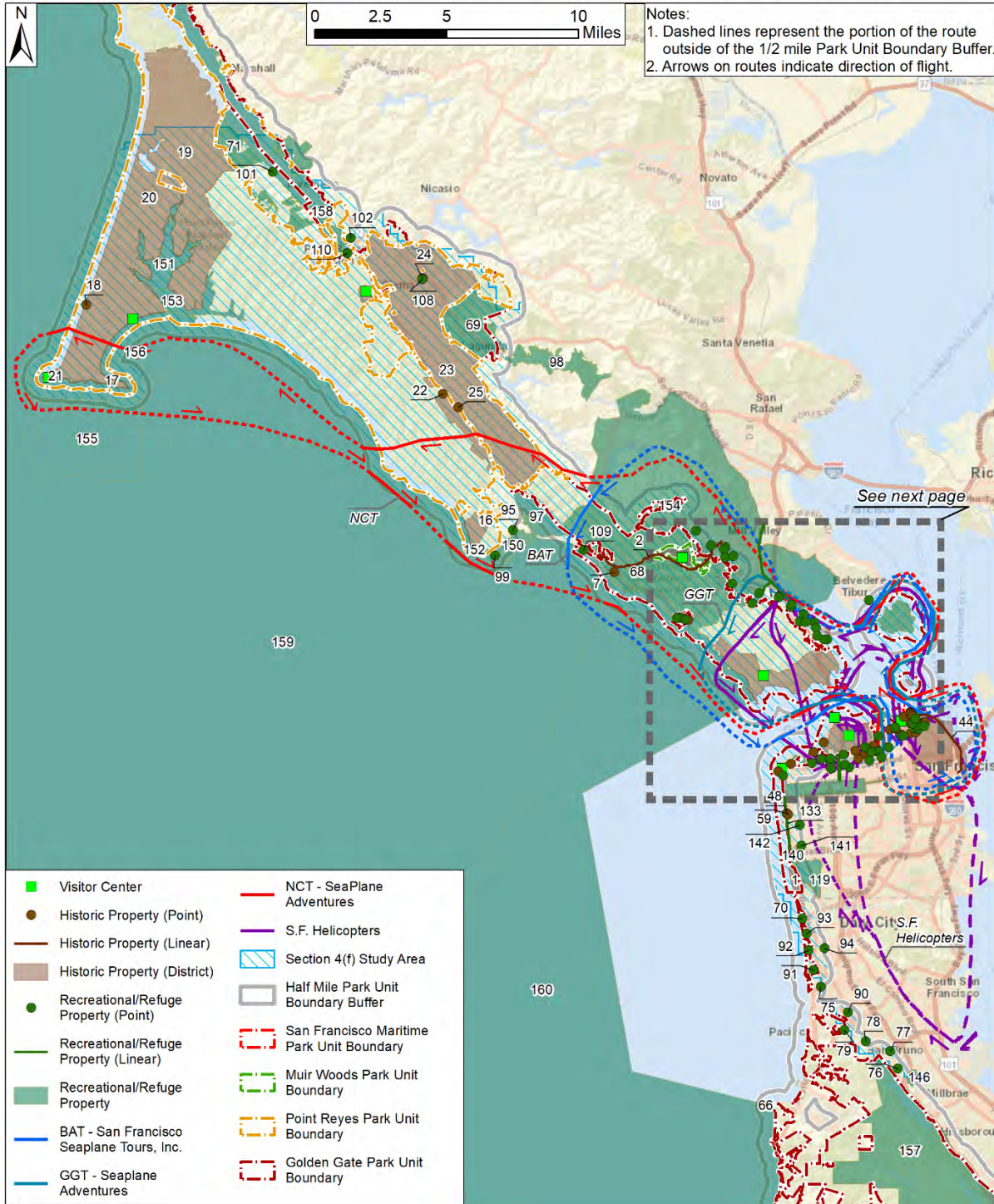
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

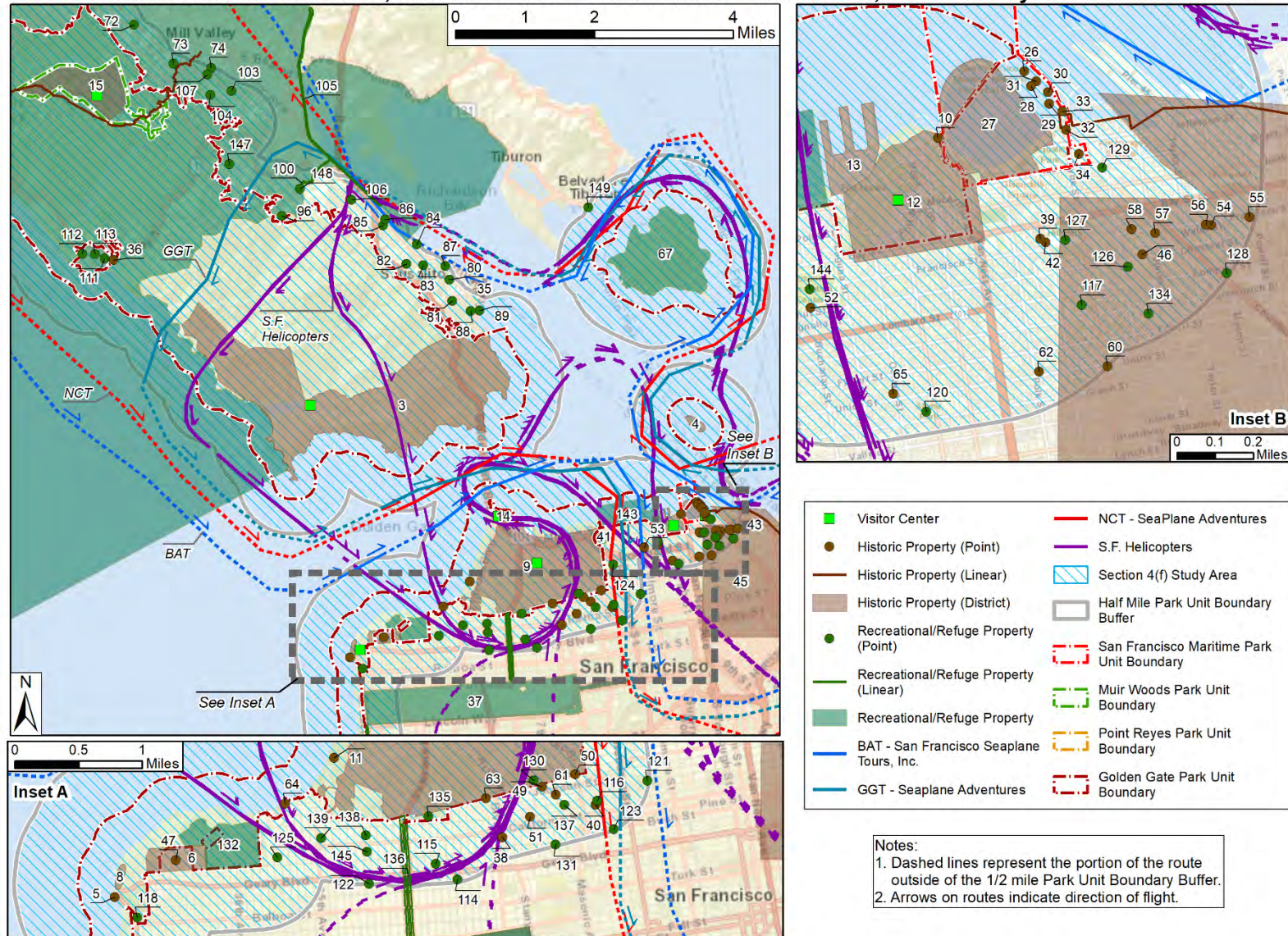
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 21, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Sean McGrew
City of Mill Valley
180 Camino Alto
Mill Valley, CA 94941

Dear Sean McGrew:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Cascade Canyon Open Space Preserve, Edgewood Park, and Kathleen Norris Memorial Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary)." When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a

quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai'i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;
- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

	classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The

ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Cascade Canyon Open Space Preserve, Edgewood Park, and Kathleen Norris Memorial Park. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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M ELMORE
Date: 2022.09.16
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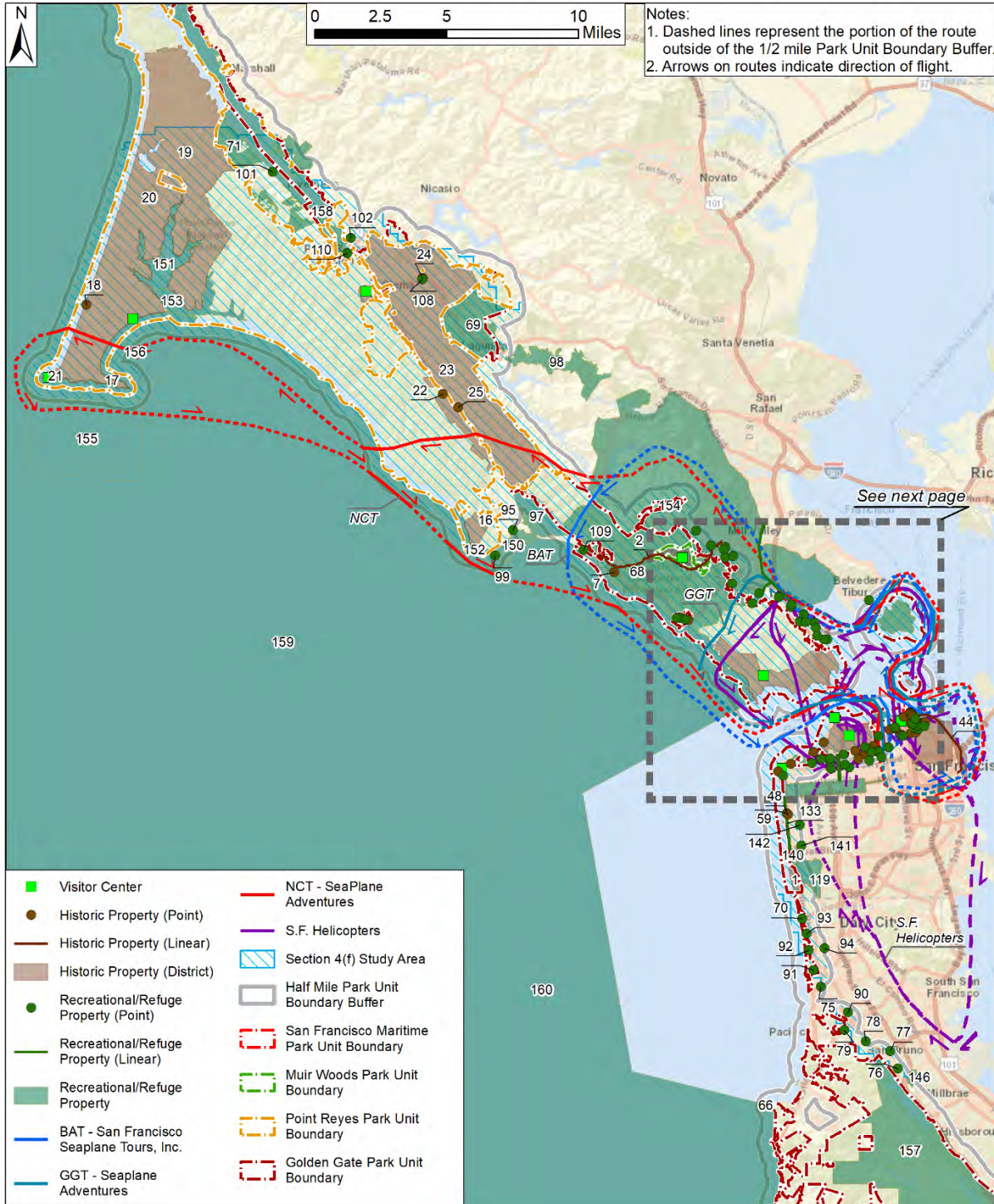
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

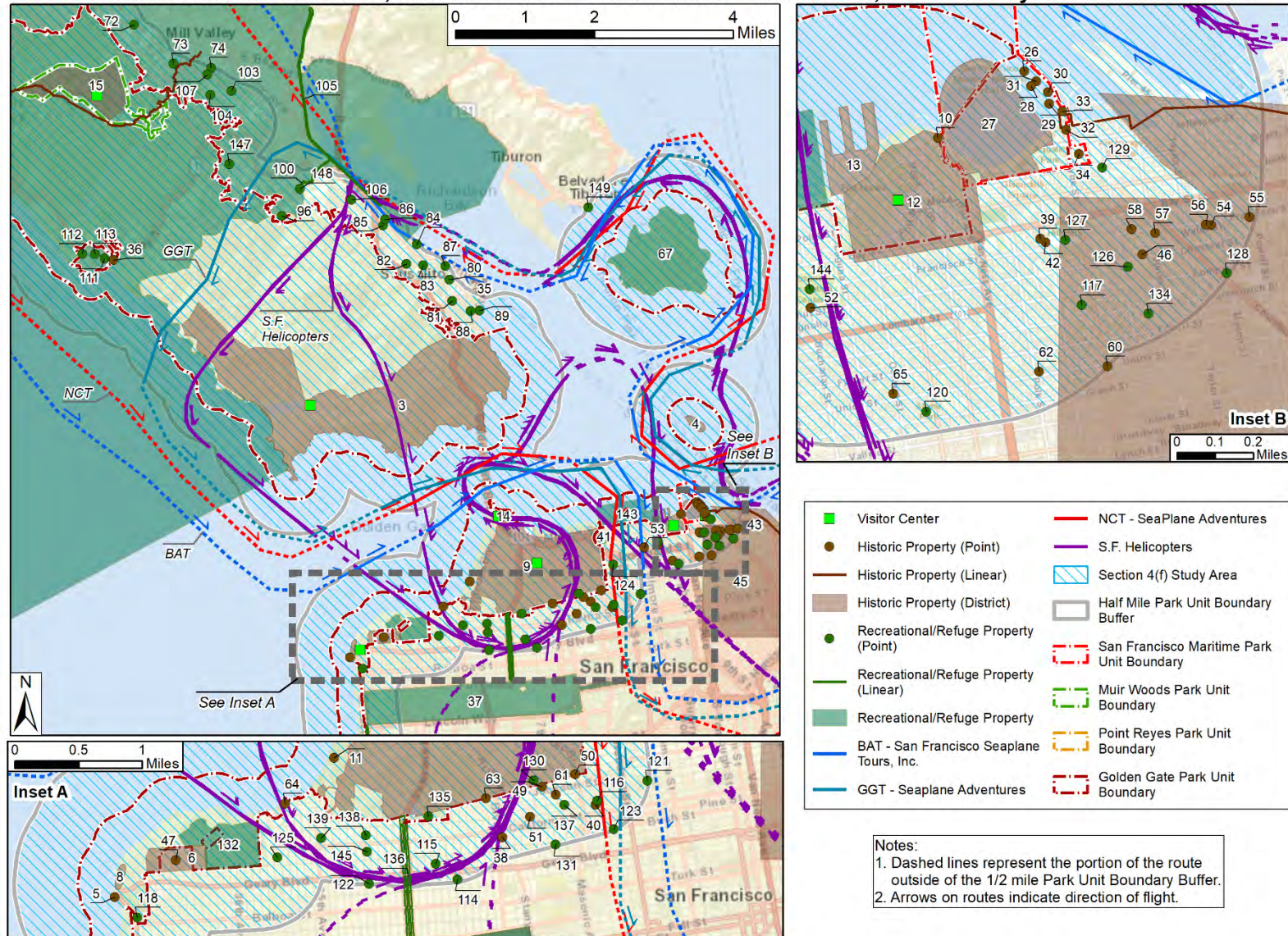
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Table listing Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 14, 2022

Re: Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303) for the development of an Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Phil Ginsburg
San Francisco Recreation & Parks
McLaren Lodge-Golden Gate Park
501 Stanyan Street
San Francisco, CA 94117

Dear Phil Ginsburg:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of this letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Allyn Park, Alta Plaza Park, Argonne Playground, Bush & Broderick Mini Park, Cow Hollow Playground, DuPont Tennis Courts, Fay Park, Francisco Park, Golden Gate Park, Joe DiMaggio Playground, Joseph Conrad Mini Park, Julius Kahn Playground, Laurel Hill Playground, Lincoln Park, Lower Great Highway, Michelangelo Playground, Mountain Lake Park, Palace of Fine Arts, Park Presidio Blvd, Presidio Heights Playground, Richmond Playground, Rochambeau Playground, San Francisco Zoo, South Sunset Playground, West Sunset Playground, Yacht Harbor and Marina Green, Moscone Rec Center, Richmond Rec Center, and Muriel Leff Mini Park, which are protected properties under Section 4(f).

Project Background and Purpose of the Action

NPATMA (Public Law 106-181, codified at 49 U.S.C. § 40128) of 2000, directs the agencies to develop ATMPs for commercial air tour operations over units of the national park system. A commercial air tour operation is defined as "a flight conducted for compensation or hire in a powered aircraft where the purpose of the flight is sightseeing over a national park, within ½ mile outside the boundary of a national park or over tribal lands, during which the aircraft flies below an altitude of 5,000 feet (ft.) above ground

level (AGL) or less than 1 mile laterally from any geographic feature within the park (unless more than ½ mile outside the boundary).” When NPATMA was passed in 2000, existing air tour operators were permitted to continue air tour operations in parks until an ATMP was completed. To facilitate this continued use, FAA granted Interim Operating Authority (IOA) to existing air tour operators. IOA set an annual limit of the number of flights per operator for each park. In 2012, NPATMA was amended by Congress to, among other things, require operators to report the number of flights conducted on a quarterly interval each year. On February 14, 2019, Public Employees for Environmental Responsibility and the Hawai’i Coalition Malama Pono filed a petition for writ of mandamus seeking to have the agencies complete air tour management plans or voluntary agreements at seven specified parks, In re Public Employees for Environmental Responsibility, et al., Case No. 19-1044 (D.C. Cir.). On May 1, 2020, the United States Court of Appeals for the District of Columbia Circuit Court granted the petition and ordered the agencies to file a proposed schedule for bringing twenty-three eligible parks, including Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore, into compliance with NPATMA within two years. The agencies submitted a plan to complete all ATMPs to the court on August 31, 2020.

Section 4(f) is applicable to historic sites and publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance that may be impacted by transportation programs or projects carried out by the U.S. Department of Transportation (USDOT) and its operating administrations, including the FAA. Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. § 303(c)), states that, subject to exceptions for *de minimis* impacts:

“... the Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

The term “use” refers to both direct (physical) and indirect (constructive) impacts to Section 4(f) resources. A physical use involves the physical occupation or alteration of a Section 4(f) resource, while constructive use occurs when a proposed action results in substantial impairment of a resource to the degree that the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. Under the ATMP, potential impacts to Section 4(f) resources from commercial air tours may include noise from aircraft within the acoustic environment, as well as visual impacts.

Description of the Proposed Action

The FAA and the NPS (collectively, the agencies) are developing ATMPs for 24 parks¹, including the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The ATMPs are being developed in

¹ On March 4, 2021, the NPS notified the FAA that an air tour management plan was necessary to protect Muir Woods National Monument’s resources and values and withdrew the exemption for the that park. The agencies are now proceeding with ATMPs for 24 parks instead of 23.

accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 4(f).

Commercial air tours have been operating intermittently over the Parks for over 20 years. Since 2005, these air tours have been conducted pursuant to IOA issued by FAA in accordance with NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than a combined limit of 5,090 air tours per year for each park. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations at the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 commercial air tours per year at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 commercial air tours per year at Muir Woods National Monument, and 143 commercial air tours per year at Point Reyes National Seashore. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.²

The proposed action is implementing the ATMP at the Parks. The following elements of the ATMP are included for the Parks:

- A combined maximum of 2,548 commercial air tours are authorized per year on the routes depicted in **Attachment A**. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore;
- Depending on location over the Parks, the air tours will fly no lower than 1,000 to 2,500 ft. above ground level (AGL) for fixed-wing aircraft and 1,000 to 1,500 ft. AGL for helicopters when over the Parks or within ½ mile of each Park boundary;
- The aircraft types authorized to be used for commercial air tours include: BHT-407-407, BHT-427-427, and DHC-2-MKI. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- The air tours may operate between 9:00 AM local time until 30 minutes after sunset for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM local time for tours of Point Reyes National Seashore any day of the year, except as provided by the quiet technology incentive. The NPS can establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management.
- The operator is required to install and use flight monitoring technology on all authorized commercial air tours, and to include flight monitoring data in their semi-annual reports to the agencies, along with the number of commercial air tours conducted;
- When made available by Park staff, the operator/pilot will take at least one training course per year conducted by the NPS. The training will include Park information that the operator can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients;

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

- At the request of either of the agencies, the Park staff, the FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training; and
- For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilots should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.
- The FAA and the NPS are both responsible for monitoring and oversight of the ATMP.

Section 4(f)

The study area for considering Section 4(f) resources for the ATMP consists of the entirety of San Francisco Maritime National Historic Park and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as a half mile outside the boundary of each Park or portion of each Park. The study area for Section 4(f) resources also corresponds with the Area of Potential Effects (APE) used for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) for the Parks. See **Attachment A** for a depiction of the Section 4(f) study area. Historic properties were identified as part of the Section 106 consultation process. Parks, recreational areas, and wildlife and waterfowl refuges were identified using public datasets from Federal, State, and local sources, which included the Bureau of Land Management, San Francisco Recreation & Parks Department, and Marin County Parks. Each resource that intersected the study area (i.e., some portion of the property fell within the Parks or ½ mile buffers around the Parks) was included in the Section 4(f) analysis.

Potential Use of Section 4(f) Resources

Evaluating potential impacts to Section 4(f) resources focuses on changes in aircraft noise exposure and visual effects resulting from implementing the ATMP. A constructive use of a Section 4(f) resource would occur if there was a substantial impairment of the resource to the degree that the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. This could occur as a result of both visual and noise impacts. The FAA evaluated the Section 4(f) resources for potential noise (including vibration) and visual impacts to determine if there was substantial impairment to Section 4(f) resources due to the ATMP that would result in a constructive use.

Noise Impacts Analysis

There are numerous ways to describe the potential impacts of noise from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The FAA's noise evaluation is based on Day Night Average Sound Level Average Annual Day (L_{dn} or DNL), the cumulative noise energy exposure from aircraft. As part of the ATMP noise analysis, the NPS provided supplemental metrics to assess the impact of commercial air tours on visitor experience in quiet settings, including noise sensitive areas of Section 4(f) resources. The metrics and acoustical terminology considered for the Section 4(f) noise analysis are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, DNL	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>The FAA’s indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.³</p>
Equivalent sound level, $L_{Aeq, 12\text{ hr}}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12\text{ hr}}$ and DNL and characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12\text{ hr}}$ and 24-hours for DNL) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12\text{ hr}}$ will be three dB higher than DNL.</p>
Maximum sound level, L_{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>
Time Above 35 dBA ⁴	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>

³ FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1

⁴ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 μPa . The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.⁵</p>
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For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of the Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low operational levels per year and are highly seasonal in nature, FAA determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts.⁶ A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy. This approach provides a conservative evaluation of potential noise impacts to park resources, as well as Section 4(f) resources, under the ATMP, as the AAD will always reflect fewer commercial air tour operations than a peak day.

The potential impacts of commercial air tours were analyzed jointly across the Parks. For the busiest year of commercial air tour activity from 2017-2019 based on the total number of commercial air tour operations (2,548 tours per year for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, 0 tours for Muir Woods National Monument, and 143 tours per year for Point Reyes National Seashore) and total flight miles over the Parks, the 90th percentile day was identified for representation of a peak day in terms of number of operations, and then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks. For the Parks, the 90th percentile day was identified as the following:

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

The noise was modeled for the acoustic indicators in the table above and 90th percentile day using the FAA's Aviation Environmental Design Tool (AEDT) version 3d. The noise was modeled at points spaced every 0.25 nautical mile throughout the potentially affected area. Please refer to the Environmental Screening Form for further detail.

⁵ Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

⁶ See *U.S. Air Tour Ass'n v. F.A.A.*, 298 F.3d 997, 1017-18 (D.C. Cir. 2002).

The noise analysis indicates that the ATMP would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for the National Environmental Policy Act.⁷ Under the ATMP, commercial air tours are restricted to the same routes compared with existing operations. There are no changes to the number of commercial air tours per year compared with the average number of flights from 2017-2019 and the ATMP requires commercial air tour operators to maintain the same or increased altitudes as those flown under existing conditions.

The resultant DNL due to the ATMP is expected to be below DNL 45 dBA and does not cause any reportable noise as there is no expected increase or change in noise from the ATMP.

Because the number of authorized flights under the ATMP would be the same or less than the average number of flights from 2017 to 2019, evaluation of NPS supplemental metrics show that impacts to Section 4(f) resources would be similar to impacts currently occurring:⁸

- On days when commercial air tours will occur, noise levels above 35 dBA (an indicator used by NPS to assess the potential for degradation of the natural sound environment) will occur for less than 115 minutes around Alcatraz Island and the Presidio and for less than 85 minutes in other regions of the study area.
- On days when commercial air tours will occur, noise levels above 52 dBA (which is associated with speech interference) will occur for less than 20 minutes in the study area. Section 4(f) resources which fall under the 52 dBA noise contour include resources in Muir Woods and San Francisco Maritime Historical Park, in the southern and southwestern portions of Point Reyes National Seashore, Alcatraz Island, Angel Island, the Presidio, Golden Gate Park, and a small portion of Ocean Beach south of Golden Gate.

In addition, the ATMP limits the operation of commercial air tours to 9:00 AM until 30 minutes after sunset local time for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park and to 12:00 PM to 5:00 PM over Point Reyes National Seashore. Operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise. The ATMP also establishes daily limits for air tour operations over Point Reyes National Seashore. These time limits provide times when visitors seeking solitude may experience the Section 4(f) resources without disruptions from commercial air tours. The ATMP restricts air tours to one of four operator-specific routes over the Parks.

⁷ Per FAA Order 1050.1F, the FAA refers to noise changes meeting the following criteria as “reportable”: for DNL 65 dB and higher, \pm DNL 1.5 dB; for DNL 60 dB to <65 dB, \pm DNL 3 dB; for DNL 45 dB to <60 dB, \pm DNL 5 dB. See 1050.1F Desk Reference, Section 11.3.

⁸ After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis below. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

The ATMP increases the minimum altitude that fixed-wing aircraft must fly over portions of the Parks, from the current minimum of approximately 800 ft. AGL near Angel Island to 1,000 ft. AGL; and from the current minimum of approximately 1,000 ft. AGL near Alcatraz to 1,500 ft. AGL. The ATMP also increases the minimum altitude that helicopter aircraft must fly over portions of the Parks, from the current minimum of 1,000 ft. AGL near Alcatraz (see Figure 1) to a minimum of 1,500 ft. AGL. Other than these portions of the Parks and within ½ mile of its boundary, the ATMP results in no change to the minimum altitude that commercial air tours may fly over the Parks (minimum 1,000 – 1,500 ft. AGL, depending on location over the Parks for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over the Parks for fixed-wing tours). Under the ATMP, commercial tours cannot fly lower than 2,000 ft. AGL over land-based wilderness and must maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. The ATMP also requires operators to report all bird strikes that occur during commercial air tours over the Parks per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes. Hovering aircraft in place is prohibited under the ATMP. Collectively, these changes from existing operations and their effect on Section 4(f) resources will likely result in beneficial impacts to the Section 4(f) resources.

As a result, FAA concludes there would be no substantial impairment of Section 4(f) resources in the study area from noise-related effects by the implementation of the ATMP. The ATMP would not result in significant or reportable increase in noise at the Parks and the ATMP will likely provide beneficial impacts to Section 4(f) resources. This analysis supports the FAA's determination that implementation of the Proposed Action would not constitute a constructive use of Section 4(f) resources in the study area. This Section 4(f) determination is also consistent with the Section 106 no adverse effect determination at the Parks (see Section 106 Consultation and Finding of No Adverse Effect letter).

Visual Impacts Analysis

The ATMP would not substantially impair Section 4(f) resources within the study area because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP will remain similar. Recognizing that some types of Section 4(f) resources may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could substantially diminish the significance or enjoyment of Section 4(f) resources in the study area. Aircraft are transitory elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property, forest, or parkland would experience a visual effect from the ATMP. One's perspective of or viewshed from a historic property and natural areas is often drawn to the horizon and aircraft at higher altitudes are less likely to be noticed. Aircraft at lower altitudes may attract visual attention but are also more likely to be screened by vegetation or topography. The ATMP allows the Parks to establish no-fly periods for special events or planned Park management.

The ATMP limits the number of commercial air tours to 2,548 flights per year over the Parks or within ½ mile of each Park's boundary. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument. The ATMP restricts air tours to the same routes as flow under existing operations. The ATMP also increases the altitudes for commercial air tours depending on location in the Parks.

Visual impacts to Section 4(f) resources will be similar to impacts currently occurring because the number of authorized flights under the ATMP will be the same as the average number of flights from 2017-2019, there are no changes to the current air tour routes, and air tours must be flown increased altitudes in certain areas of the Parks. The ATMP would not introduce visual elements or result in visual impacts that would substantially diminish the activities, features or attributes of a Section 4(f) resource. Therefore, there would be no constructive use from visual impacts of Section 4(f) resources.

Preliminary Finding

The FAA has preliminarily determined the ATMP would not substantially diminish the protected activities, features, or attributes of the Section 4(f) resources in the study area. There is no anticipated change in visual and noise impacts over existing conditions as a result of the ATMP. Moreover, the noise analysis indicated that there would be no significant impact or reportable increase from implementation of the ATMP. The ATMP would not result in substantial impairment of Section 4(f) resources; therefore, based on the analysis above, FAA intends to make a determination of no constructive use of Allyn Park, Alta Plaza Park, Argonne Playground, Bush & Broderick Mini Park, Cow Hollow Playground, DuPont Tennis Courts, Fay Park, Francisco Park, Golden Gate Park, Joe DiMaggio Playground, Joseph Conrad Mini Park, Julius Kahn Playground, Laurel Hill Playground, Lincoln Park, Lower Great Highway, Michelangelo Playground, Mountain Lake Park, Palace of Fine Arts, Park Presidio Blvd, Presidio Heights Playground, Richmond Playground, Rochambeau Playground, San Francisco Zoo, South Sunset Playground, West Sunset Playground, Yacht Harbor and Marina Green, Moscone Rec Center, and Richmond Rec Center. We request that you review this information and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this letter.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

**ERIC M
ELMORE**

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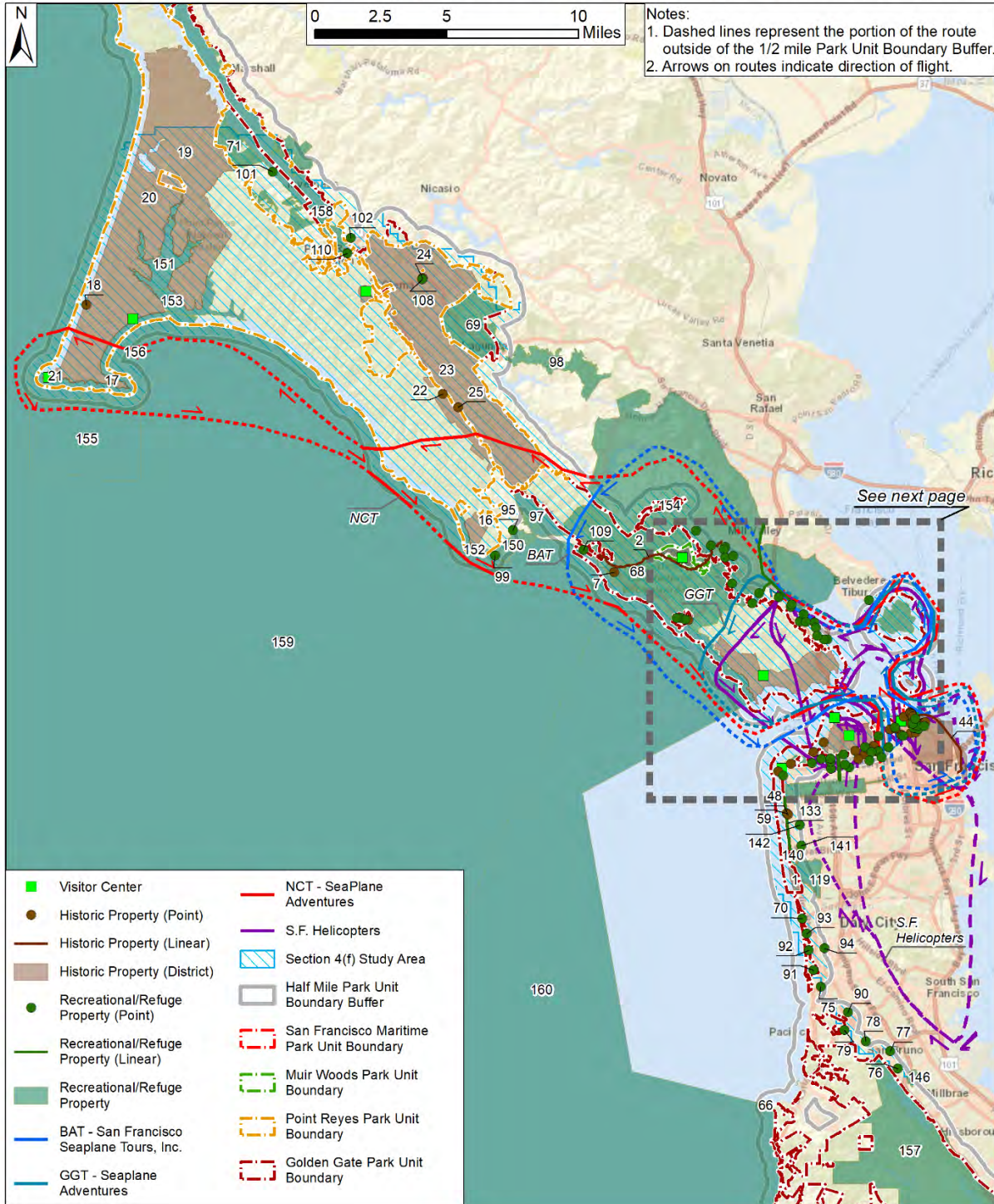
Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration

Attachments

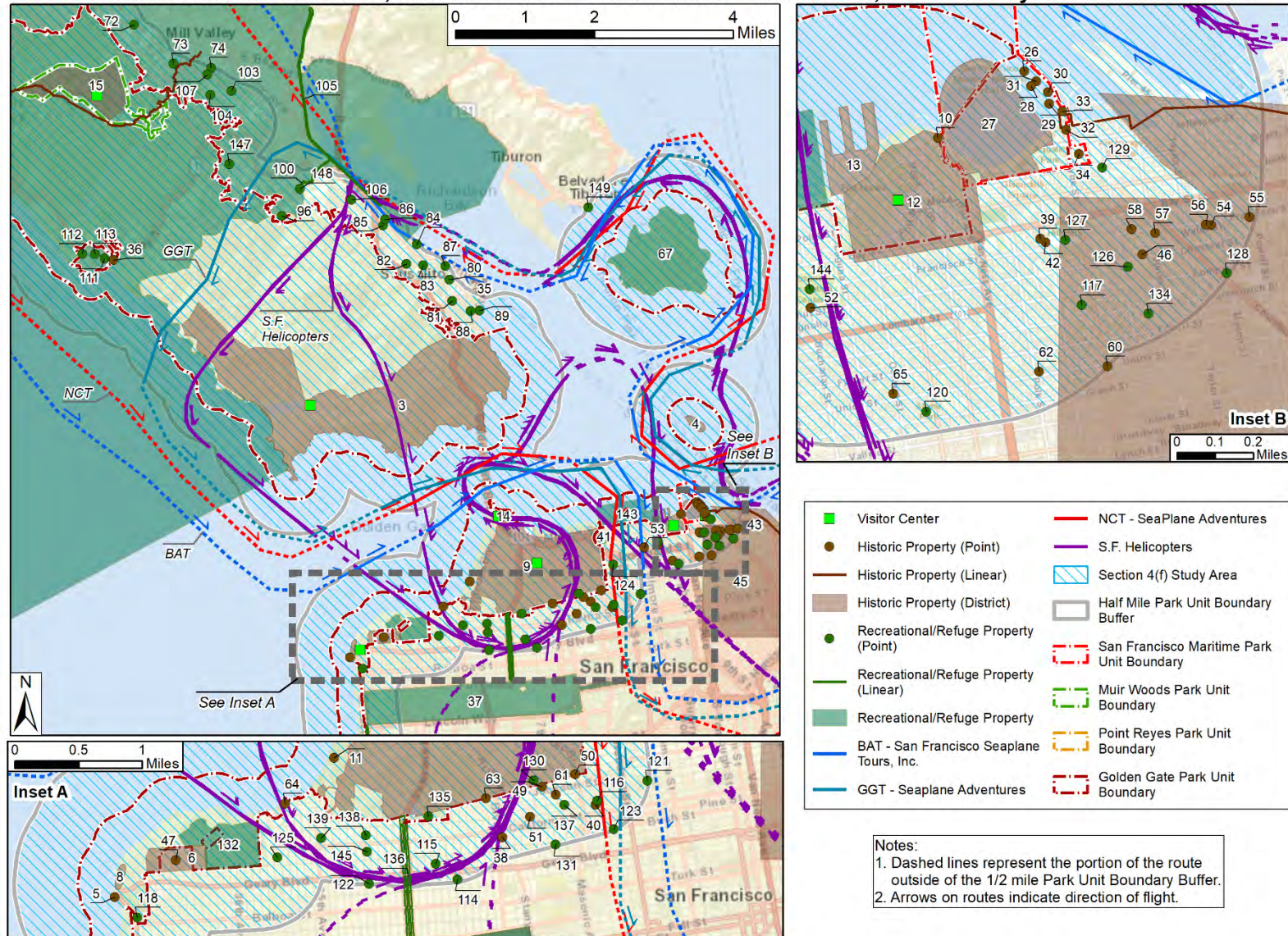
- A. Map including proposed Commercial Air Tour Routes, Section 4(f) Study Area, and Section 4(f) Resources
- B. Section 4(f) historic sites, Section 4(f) parks and recreational areas, and Section 4(f) wildlife and waterfowl refuges identified in the study area, including map label key for properties.

ATTACHMENT A

Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



**Section 4(f) Study Area and Properties for ATMP at Golden Gate National Recreation Area,
Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore**



ATTACHMENT B

Table 1. Section 4(f) historic sites within the study area

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Fort Funston	NPS, State Historic Preservation Officer (SHPO)	District	Eligible	Fort Funston is a former harbor defense installation that is significant under Criterion A in the area of military history.	1
Muir Beach Archaeological Site	NPS, SHPO	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Steamship TENNESSEE Remains	NPS, SHPO	Structure	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
The Dipsea Trail	NPS, SHPO	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Forts Baker, Barry, and Cronkhite	NPS, SHPO	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Alcatraz	NPS, SHPO	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Camera Obscura	NPS, SHPO	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5
Fort Miley Military Reservation	NPS, SHPO	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Hill 640 Military Reservation	NPS, SHPO	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	NPS, SHPO	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Point Lobos Archaeological Sites	NPS, SHPO	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Presidio of San Francisco	NPS, SHPO	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	NPS, SHPO	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of community planning and Criterion C for engineering.	10
Six-Inch Rifled Gun No. 9	NPS, SHPO	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Fort Mason Historic District	NPS, SHPO	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
San Francisco Port of Embarkation, US Army (NHL)	NPS, SHPO	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Fort Point National Historic Site	NPS, SHPO	Building	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Muir Woods National Monument	NPS, SHPO	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Drakes Bay Historic and Archaeological District (NHL)	NPS, SHPO	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	Not mapped
Marconi—RCA Bolinas Transmitting Station	NPS, SHPO	District	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes Lifeboat Rescue Station, 1927	NPS, SHPO	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes Naval Radio Compass Station	NPS, SHPO	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes Peninsula Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
RCA Point Reyes Receiving Station	NPS, SHPO	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	20

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Point Reyes Light Station	NPS, SHPO	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Olema Lime Kilns	NPS, SHPO	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Olema Valley Dairy Ranches Historic District	NPS, SHPO	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Tocaloma Bridge	NPS, SHPO	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Sarah Seaver Randall House	NPS, SHPO	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes Peninsula Indigenous Archeological District	NPS, SHPO	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped
ALMA (Scow Schooner) (NHL)	NPS, SHPO	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
Aquatic Park Historic District (NHL)	NPS, SHPO	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
BALCLUTHA (NHL)	NPS, SHPO	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
C.A. THAYER (NHL)	NPS, SHPO	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
EUREKA (NHL)	NPS, SHPO	Structure	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
HERCULES (tugboat) (NHL)	NPS, SHPO	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
LEWIS ARK (houseboat)	NPS, SHPO	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
Tubbs Cordage Company Office Building	NPS, SHPO	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
Haslett Warehouse	NPS, SHPO	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and Criterion C for its association with architect William S. Mooser, Jr.	34
Sausalito Central Business Historic District	NPS, SHPO	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Building at 200 Pacific Way, Muir Beach	NPS, SHPO	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
Golden Gate Park	NPS, SHPO	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
St. John's Presbyterian Church	NPS, SHPO	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
Sinton House	NPS, SHPO	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Swedenborgian Church (NHL)	NPS, SHPO	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
Palace of Fine Arts	NPS, SHPO	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic preservation, architectural design, and urban development in the U.S.	41
Pioneer Woolen Mills and D. Ghirardelli Company	NPS, SHPO	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
Port of San Francisco Embarcadero Historic District	NPS, SHPO	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
Old Seawall	NPS, SHPO	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco Cable Cars (NHL)	NPS, SHPO	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco Art Institute	NPS, SHPO	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its contributions to art education in the United States.	46
San Francisco Veterans Affairs Medical Center	NPS, SHPO	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building	47

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				technologies and for the design of its Mayan Art Deco ornamentation.	
Moss Flats Building	NPS, SHPO	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
Roos House	NPS, SHPO	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
Julian Waybur House	NPS, SHPO	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
Koshland House	NPS, SHPO	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51
Moscone Clubhouse	NPS, SHPO	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
Anchor Building	NPS, SHPO	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
Building at 521 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
North Beach Place Housing Project	NPS, SHPO	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
Building at 547 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56

Property Name	Official(s) with Jurisdiction	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Building at 679 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
Building at 750 Francisco Street, San Francisco	NPS, SHPO	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
Building at 1672 Great Highway, San Francisco	NPS, SHPO	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
Search Light Market	NPS, SHPO	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
Laurel Street Apartments	NPS, SHPO	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61
Antica Building	NPS, SHPO	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
Presidio Golf Club Clubhouse	NPS, SHPO	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
Jerome White House	NPS, SHPO	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
Building at 1800 Union Street	NPS, SHPO	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

Table 2. Section 4(f) parks and recreational resources in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
California Coastal National Monument	Bureau of Land Management	National Monument	8924 acres (0.3 acres in study area)	66

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Angel Island State Park	California Department of Parks and Recreation	State park	754 acres (completely within study area)	67
Mount Tamalpais State Park	California Department of Parks and Recreation	State park	6406 acres (completely within study area)	68
Samuel P. Taylor State Park	California Department of Parks and Recreation	State park	2613 acres (2548 acres in study area)	69
Thornton State Beach	California Department of Parks and Recreation	State beach; currently closed to the general public.	67.4 acres (completely within study area)	70
Tomales Bay State Park	California Department of Parks and Recreation	State park	2432 acres (1149 acres in study area)	71
Cascade Canyon Open Space Preserve	City of Mill Valley	Open space	41.4 acres (41.3 acres in study area)	72
Edgewood Park	City of Mill Valley	Neighborhood park	5.8 acres (completely within study area)	73
Kathleen Norris Memorial Park	City of Mill Valley	Open space	1.2 acres (0.4 acres in study area)	74
Fairmont West Park	City of Pacifica	Local park	5.9 acres (2.1 acres in study area)	75
Buckeye Park	City of San Bruno	Local park	7.4 acres (4.9 acres in study area)	76
Glenview Park	City of San Bruno	Local park	82.6 acres (59 acres in study area)	77
Pacific Heights Park	City of San Bruno	Local park	5 acres (completely within study area)	78
Ponderosa Park	City of San Bruno	Local park	0.6 acres (0.6 acres in study area)	79
Cazneau Park	City of Sausalito	Mini-park	0.04 acres (completely within study area)	80
Cloudview Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	81

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Cypress Ridge Open Space Preserve	City of Sausalito	Open space	15.3 acres (completely within study area)	82
Langendorf Park	City of Sausalito	Mini-park	0.3 acres (completely within study area)	83
Marinship Park	City of Sausalito	Community park	2.7 acres (2.3 acres in study area)	84
Martin Luther King Jr Park	City of Sausalito	Community park	16 acres (completely within study area)	85
Remington Dog Park	City of Sausalito	Community park	1.3 acres (completely within study area)	86
Robin Sweeney Park	City of Sausalito	Neighborhood park	0.9 acres (completely within study area)	87
Southview Park	City of Sausalito	Neighborhood park	0.6 acres (completely within study area)	88
Tiffany Park	City of Sausalito	Mini-park	0.2 acres (completely within study area)	89
Callan Park	City of South San Francisco	Local park	2.6 acres (completely within study area)	90
Longview Park	Daly City	Local park	58.7 acres (42.4 acres in study area)	91
Northridge Park	Daly City	Local park	0.7 acres (completely within study area)	92
Palisades Park	Daly City	Local park	1.2 acres (completely within study area)	93
Westmoor Park	Daly City	Local park	28 acres (12.3 acres in study area)	94
Mesa Park	Firehouse Community Park Agency	Community park	12.1 acres (6.2 acres in study area)	95
Marin View	Marin County	Community park	21.7 acres (completely within study area)	96
Bolinas Lagoon Open Space Preserve	Marin County Open Space District	Open space	1100 acres (807 acres in study area)	97

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Gary Giacomini Open Space Preserve	Marin County Open Space District	Open space	1550 acres (13.3 acres in study area)	98
Agate Beach	Marin County Parks	Community park	13.7 acres (completely within study area)	99
Charles F. McGlashan Pathway	Marin County Parks	Multi-use pathway (paved)	2.7 acres (1.9 acres in study area)	100
Chicken Ranch Beach	Marin County Parks	Community park	6.4 acres (completely within study area)	101
Eldrid Preserve	Marin County Parks	Neighborhood park	20.6 acres (14.4 acres in study area)	102
Homestead Valley Community Center	Marin County Parks	Community park	1.2 acres (completely within study area)	103
Homestead Valley Open Space	Marin County Parks	Open space	76.6 acres (completely within study area)	104
Mill Valley / Sausalito Path	Marin County Parks	Multi-use pathway (paved)	26.6 acres (2.7 acres in study area)	105
Rocky Graham Park	Marin County Parks	Community park	1.1 acres (completely within study area)	106
Stolte and Three Groves Park	Marin County Parks	Neighborhood park	4.3 acres (completely within study area)	107
Unnamed County Park	Marin County Parks	Mini-park	2.3 acres (completely within study area)	108
Upton Beach	Marin County Parks	Regional park	13.4 acres (completely within study area)	109
Whitehouse Pool	Marin County Parks	Community park	22.7 acres (completely within study area)	110
Lower Park	Muir Beach Community Service District	Community park	0.8 acres (completely within study area)	111
Overlook Park	Muir Beach Community Service District	Community park	0.2 acres (completely within study area)	112
Upper Park	Muir Beach Community Service District	Community park	1.9 acres (completely within study area)	113

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Fort Point National Historic Site	National Park Service	National Historic Site	25.1 acres (completely within study area)	*
Muriel Leff Mini Park	San Francisco Police Department	Mini Park	0.2 acres (completely within study area)	114
10th Ave & Clement Mini Park	San Francisco Public Library	Mini Park	0.9 acres (completely within study area)	115
Presidio Library Mini Park	San Francisco Public Library	Mini Park	0.7 acres (completely within study area)	116
Alice Marble Tennis Courts	San Francisco Public Utilities Commission	Neighborhood Park or Playground	0.8 acres (completely within study area)	117
Balboa Natural Area	San Francisco Public Utilities Commission	Neighborhood Park or Playground	1.8 acres (completely within study area)	118
Lake Merced Park	San Francisco Public Utilities Commission	Regional Park	608 acres (308 acres in study area)	119
Allyne Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	120
Alta Plaza Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.9 acres (7.4 acres in study area)	121
Argonne Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (0.1 acres in study area)	122
Bush & Broderick Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (0.1 acres in study area)	123
Cow Hollow Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.1 acres (completely within study area)	124
DuPont Tennis Courts	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	125
Fay Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.3 acres (completely within study area)	126
Francisco Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	5 acres (completely within study area)	127
Golden Gate Park	San Francisco Recreation & Parks Department	Regional Park	1022 acres (149 acres in study area)	*

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Joe DiMaggio Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	3.3 acres (0.2 acres in study area)	128
Joseph Conrad Mini Park	San Francisco Recreation & Parks Department	Mini Park	0.2 acres (completely within study area)	129
Julius Kahn Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	12.4 acres (completely within study area)	130
Laurel Hill Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	1.6 acres (1.3 acres in study area)	131
Lincoln Park	San Francisco Recreation & Parks Department	Regional Park	113 acres (completely within study area)	132
Lower Great Highway	San Francisco Recreation & Parks Department	Parkway	21.1 acres (completely within study area)	133
Michelangelo Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	134
Mountain Lake Park	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	13 acres (completely within study area)	135
Palace of Fine Arts	San Francisco Recreation & Parks Department	Civic Plaza or Square	19.7 acres (completely within study area)	*
Park Presidio Blvd	San Francisco Recreation & Parks Department	Parkway	20.4 acres (11.5 acres in study area)	136
Presidio Heights Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.5 acres (completely within study area)	137
Richmond Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	138
Rochambeau Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	0.9 acres (completely within study area)	139
San Francisco Zoo	San Francisco Recreation & Parks Department	Zoological Garden	132 acres (130 acres in study area)	140
South Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	4.1 acres (completely within study area)	141
West Sunset Playground	San Francisco Recreation & Parks Department	Neighborhood Park or Playground	17.8 acres (1.7 acres in study area)	142

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Yacht Harbor and Marina Green	San Francisco Recreation & Parks Department	Regional Park	165 acres (completely within study area)	143
Moscone Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	12.7 acres (completely within study area)	144
Richmond Rec Center	San Francisco Unified School District	Neighborhood Park or Playground	0.9 acres (completely within study area)	145
Junipero Serra Park	San Mateo County	County park	103 acres (12.7 acres in study area)	146
Eastwood Park	Tamalpais Community Services District	Community park	5 acres (completely within study area)	147
Tamalpais Valley Community Center	Tamalpais Community Services District	Community park	1.3 acres (completely within study area)	148
Pt. Tiburon Shoreline Park	Town of Tiburon	Community park	2.3 acres (0.1 acres in study area)	149

Note: Properties with an asterisk (*) in the Map Label Number field are also historic properties; the number used in the maps for them can be found in ATTACHMENT B *Table 1*.

Table 3. Section 4(f) wildlife and waterfowl refuges in the study area

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Bolinas Quail Refuge	California Department of Fish and Wildlife	Quail refuge established in section 10881 of the California Fish and Game Code	622 acres (331 acres in study area)	150
Drakes Estero State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	1599 acres (completely within study area)	151
Duxbury Reef State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	442 acres (395 acres in study area)	152
Estero de Limantour State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	927 acres (completely within study area)	153

Property Name	Official(s) with Jurisdiction	Description	Approximate Size	Map Label Number
Mount Tamalpais Game Refuge (a/k/a Fish and Game District 2B)	California Department of Fish and Wildlife	Game refuge established in section 10833 of the California Fish and Game Code	31574 acres (14640 acres in study area)	154
Point Reyes State Marine Conservation Area	California Department of Fish and Wildlife	State Marine Conservation Area	7850 acres (340 acres in study area)	155
Point Reyes State Marine Reserve	California Department of Fish and Wildlife	State Marine Reserve	6111 acres (6430 acres in study area)	156
San Francisco Fish and Game Refuge	California Department of Fish and Wildlife	Fish and game refuge established in section 10771 of the California Fish and Game Code	23628 acres (31.2 acres in study area)	157
Tomales Bay Ecological Reserve	California Department of Fish and Wildlife	State Park	438 acres (130 acres in study area)	158
Greater Farallones National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	2.1 million acres (14383 acres in study area)	159
Monterey Bay National Marine Sanctuary	NOAA National Marine Sanctuary Program	National Marine Sanctuary	3.9 million acres (3721 acres in study area)	160

From: [Mesa Park](#)
To: [ATMPTeam](#)
Cc: [Elmore, Eric <FAA>](#)
Subject: Re: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore
Date: Wednesday, October 5, 2022 4:59:50 PM

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hello

Thank you for the opportunity to respond.

My opinion is to eliminate or severely limit the number of sight-seeing flights over our park for the following reasons:

- * We are already directly under a southbound flight path into San Francisco International Airport (SFO), and passenger planes routinely decelerate directly overhead. In fact I just heard one from inside my house this very moment.
- * We often hear and see small aircraft out for pleasure flights, often not just flying overhead but circling overhead.
- * We often hear and see Coast Guard helicopters flying over the coast line.
- * We occasionally hear and see military fighter jets flying overhead (very loud).
- * We occasionally hear and see large military transport helicopters flying overhead (very loud).

Of all these aircraft, the Coast Guard helicopters are the only ones (in my opinion) that are truly necessary.

All others only contribute to a noisy, polluted sky above our community park, a national seashore, and marine sanctuary.

In addition, we are surrounded by wild space and thus are a sanctuary for land animals, birds, and marine life of all types.

For these reasons I, Kevin McElroy the Mesa Park Board Secretary, would urge you to eliminate (or at least severely limit) aircraft OF ALL TYPES over Mesa Park and the surrounding areas.

Another board member writes:

"From my reading of this there would be no tours flying over our parks. If this is not the case let me know if I read this incorrectly - lot of information in here.

I am in favor of NO FLYOVERS as they are loud and disruptive personally..."

Thank you,
Kevin McElroy
Mesa Park Board Secretary

On Wed, Sep 28, 2022 at 11:19 AM ATMPTeam <ATMPTeam@dot.gov> wrote:

Dear Mesa Park Board,

This email serves as a reminder to please provide any feedback on the Federal Aviation Administration's preliminary findings in accordance with Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)) related to potential impacts to Mesa Park, which is a protected property under Section 4(f), by October 5th (see email below).

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

From: ATMPTeam <ATMPTeam@dot.gov>
Sent: Wednesday, September 21, 2022 9:53 AM
To: mesaparkboard@gmail.com
Cc: ATMPTeam <ATMPTeam@dot.gov>; Elmore, Eric <FAA> <eric.elmore@faa.gov>
Subject: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Dear Mesa Park Board,

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of the attached letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Mesa Park, which is a protected property under Section 4(f).

We request that you review the attached letter and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this email.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

--

Mesa Park Board
Bolinaz, CA 94924

Hanchera, Shelby (Volpe)

From: Ward, Vicki L <Vicki_Ward@nps.gov>
Sent: Friday, October 7, 2022 1:06 PM
To: Ketcham, Brannon; Carter, Michelle L; Hanchera, Shelby (Volpe); Elmore, Eric <FAA>
Cc: Altman, Anne D; NPS PORE Superintendent
Subject: Re: ATMP - Point Reyes 4(f) letter

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

It was just sent to GOGA since they have management oversight of Fort Point National Historic Site. Some of the confusion stemmed from one of the FAA project managers thinking that a letter was sent to all parks that are part of this ATMP. The review of the other FAA Section 4(f) document is supposed to be done by all the parks but I got it included in the 95% fatal flaw review package instead because it is getting too complicated keeping track of who is supposed to review what documents.

Thanks,

Vicki L. Ward
Overflights Program Manager
[Natural Sounds and Night Skies Division](#)
Natural Resource Stewardship and Science Directorate
National Park Service
1201 Oakridge Dr., Suite 100
Fort Collins, CO 80525
vicki_ward@nps.gov
Teleworking/Mobile #: 970-631-5257
Fax: (970) 267-2109

"Listening to the silence is probably one of the most profound experiences we can have in our everyday life." Anne Wilson Schaef

From: Ketcham, Brannon <Brannon_Ketcham@nps.gov>
Sent: Friday, October 7, 2022 10:46 AM
To: Ward, Vicki L <Vicki_Ward@nps.gov>; Carter, Michelle L <Michelle_Carter@nps.gov>; Hanchera, Shelby (Volpe) <shelby.hanchera@dot.gov>; Elmore, Eric (FAA) <eric.elmore@faa.gov>
Cc: Altman, Anne D <Anne_Altman@nps.gov>; NPS PORE Superintendent <PORE_Superintendent@nps.gov>
Subject: Re: ATMP - Point Reyes 4(f) letter

was just confirming as Eric was asking if we had responded. Was not clear who it had been sent to...

THanks
Brannon

From: Ward, Vicki L <Vicki_Ward@nps.gov>
Sent: Friday, October 7, 2022 9:44 AM
To: Ketcham, Brannon <Brannon_Ketcham@nps.gov>; Carter, Michelle L <Michelle_Carter@nps.gov>; Hanchera, Shelby (Volpe) <shelby.hanchera@dot.gov>; Elmore, Eric (FAA) <eric.elmore@faa.gov>

Cc: Altman, Anne D <Anne_Altman@nps.gov>; NPS PORE Superintendent <PORE_Superintendent@nps.gov>

Subject: Re: ATMP - Point Reyes 4(f) letter

Hi Brannon,

I was able to confirm that FAA did not send a Section 4(f) letter to PORE. Review of the Section 4(f) document will be included in the 95% fatal flaw review of the ATMP and supporting documents which will start 11/17 instead of next week.

Thanks,

Vicki L. Ward
Overflights Program Manager
[Natural Sounds and Night Skies Division](#)
Natural Resource Stewardship and Science Directorate
National Park Service
1201 Oakridge Dr., Suite 100
Fort Collins, CO 80525
vicki_ward@nps.gov
Teleworking/Mobile #: 970-631-5257
Fax: (970) 267-2109

"Listening to the silence is probably one of the most profound experiences we can have in our everyday life." Anne Wilson Schaefer

From: Ward, Vicki L <Vicki_Ward@nps.gov>

Sent: Thursday, October 6, 2022 3:58 PM

To: Ketcham, Brannon <Brannon_Ketcham@nps.gov>; Carter, Michelle L <Michelle_Carter@nps.gov>; Hanchera, Shelby (Volpe) <shelby.hanchera@dot.gov>; Elmore, Eric (FAA) <eric.elmore@faa.gov>

Cc: Altman, Anne D <Anne_Altman@nps.gov>; NPS PORE Superintendent <PORE_Superintendent@nps.gov>

Subject: Re: ATMP - Point Reyes 4(f) letter

Hi Brannon,

I'm going to talk to the FAA/NPS team about this tomorrow. I think there's some confusion about what Section 4(f) letters went to which Bay Area parks and for what purpose and there may not have been a letter sent to PORE, just GOGA. But there's another Section 4(f) analysis document that might require review by the parks. I'll let you know what I find out.

Thanks,

Vicki L. Ward
Overflights Program Manager
[Natural Sounds and Night Skies Division](#)
Natural Resource Stewardship and Science Directorate
National Park Service
1201 Oakridge Dr., Suite 100
Fort Collins, CO 80525
vicki_ward@nps.gov
Teleworking/Mobile #: 970-631-5257
Fax: (970) 267-2109

"Listening to the silence is probably one of the most profound experiences we can have in our everyday life." Anne Wilson Schaefer

From: Ketcham, Brannon <Brannon_Ketcham@nps.gov>

Sent: Thursday, October 6, 2022 10:00 AM

To: Ward, Vicki L <Vicki_Ward@nps.gov>; Carter, Michelle L <Michelle_Carter@nps.gov>; Hanchera, Shelby (Volpe) <shelby.hanchera@dot.gov>; Elmore, Eric (FAA) <eric.elmore@faa.gov>

Cc: Altman, Anne D <Anne_Altman@nps.gov>; NPS PORE Superintendent <PORE_Superintendent@nps.gov>; Ketcham, Brannon <Brannon_Ketcham@nps.gov>

Subject: ATMP - Point Reyes 4(f) letter

Eric and Shelby

The 4f letter was raised on our call yesterday. I have checked the Point Reyes Superintendent's box as well as directly with Craig and Anne - none of them have the 4f letter from you.

Please resend the 4f letter to the cc list on this email and we can turn it around for you.

Also FYI - Beginning this week and through the end of December, Anne Altman is the Acting Superintendent at Point Reyes and Craig Kenkel is the Acting Superintendent at Golden Gate.

Thank you
Brannon

Hanchera, Shelby (Volpe)

From: Allen, Garrett@Wildlife <Garrett.Allen@wildlife.ca.gov>
Sent: Wednesday, October 12, 2022 2:55 PM
To: Elmore, Eric <FAA>
Cc: ATMPTeam
Subject: National Parks Air Tour Management Program - Section 4(f) de minimis impacts determination

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Dear Mr. Elmore,

I am preparing CDFW's Section 4(f) De minimis Impacts Determination today on the Subject project and I just need a mailing address for you to list on the letterhead.

Thank you,

Garrett Allen

Unit Wildlife Biologist (San Mateo, San Francisco, and Marin Counties)
California Department of Fish and Wildlife – Bay Delta Region (Region 3)
Wildlife and Lands Management Program
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2076 (cell)
(707) 428-2002 (front desk)





State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



October 21, 2022

Mr. Eric Elmore
Senior Policy Advisor
Office of Environment and Energy
Federal Aviation Administration
800 Independence Avenue., S.W., Suite 900W
Washington, D.C. 20591
Eric.Elmore@faa.gov

Subject: California Department of Fish and Wildlife Concurrence with the Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore - Section 4(f) *De Minimis* Impacts Determination

Dear Mr. Elmore:

The Air Tour Management Plan for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore (ATMP) affects the following lands that are owned or under the jurisdiction of the California Department of Fish and Wildlife:

- Drakes Estero State Marine Conservation Area;
- Duxbury Reef State Marine Conservation Area;
- Point Reyes State Marine Conservation Area;
- Estero de Limantour State Marine Reserve;
- Point Reyes State Marine Reserve;
- Bolinas Quail Refuge (pursuant to Fish and Game Code section 10881);
- Mount Tamalpais Game Refuge (pursuant to Fish and Game Code section 10833);
- San Francisco Fish and Game Refuge (pursuant to Fish and Game Code section 10771); and
- Tomales Bay Ecological Reserve

CDFW concurs in the determination that the proposed ATMP, as described in the

Conserving California's Wildlife Since 1870

Mr. Eric Elmore
Office of Environment and Energy
Federal Aviation Administration
October 21, 2022
Page 2

Consultation under Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. 303) for the development of an Air Tour Management Plan for the Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore would not adversely affect the activities, features, or attributes of the 4(f) properties that makes it eligible for protection under Section 4(f). Therefore, CDFW agrees that the Project meets the criteria for a *de minimis* impacts determination under Section 4(f) of the USDOT Act of 1966 (49 U.S.C 303). CDFW has been informed that, based on its concurrence, the Federal Aviation Administration (FAA) intends to make this *de minimis* impacts determination regarding the 4(f) properties listed above, thus satisfying FAA requirements under Section 4(f).

Should you have any questions, please feel free to contact Mr. Garrett Allen, Environmental Scientist, at (707) 428-2076 or Garrett.Allen@wildlife.ca.gov; or Mr. John Krause, Senior Environmental Scientist (Supervisory), at (415) 454-8050 or John.Krause@wildlife.ca.gov.

Sincerely,

DocuSigned by:

B77E9A6211EF486
Erin Chappell
Regional Manager
Bay Delta Region

Hanchera, Shelby (Volpe)

From: Strauss McBrien, Rachel (Volpe)
Sent: Friday, November 4, 2022 1:43 PM
To: ATMPTeam
Cc: Papazian, Jennifer (Volpe); Hanchera, Shelby (Volpe); Blatnica, Rebecca (Volpe)
Subject: FW: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore
Attachments: Section 4f_Draft OWJ letter_GOGA+_PatrickKerslake_09-21-22.pdf

For files

Rachel Strauss McBrien, AICP

617-494-2207 | rachel.mcbrien@dot.gov

From: Elmore, Eric (FAA) <eric.elmore@faa.gov>
Sent: Friday, November 4, 2022 12:04 PM
To: Strauss McBrien, Rachel (Volpe) <Rachel.McBrien@dot.gov>; Carrigan, Deirdre (Volpe) <Deirdre.Carrigan@dot.gov>
Subject: FW: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

FYSA

Eric M. Elmore
Senior Policy Advisor, AEE-6
FAA Office of Environment and Energy
ph: 202-267-8335

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From: Patrick Kerslake <pkerslake@townoftiburon.org>
Sent: Friday, November 4, 2022 11:49 AM
To: ATMPTeam <ATMPTeam@dot.gov>
Cc: Elmore, Eric (FAA) <eric.elmore@faa.gov>
Subject: RE: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Eric,

I have reviewed the attached ATMP that was provided to us for review. We have no further comments or concerns and appreciate the time extension provided to review this material.

Best Regards,

Patrick Kerslake

Operations Manager | Department of Public Works
1505 Tiburon Boulevard | Tiburon, California 94920
Tel: 415-435-7399 | Email: pkerslake@townoftiburon.org

From: ATMPTeam <ATMPTeam@dot.gov>
Sent: Tuesday, October 11, 2022 12:23 PM
To: Patrick Kerslake <pkerslake@townoftiburon.org>
Cc: Elmore, Eric <FAA> <eric.elmore@faa.gov>; ATMPTeam <ATMPTeam@dot.gov>
Subject: RE: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

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Dear Patrick Kerslake,

The FAA has received your request for additional review time of the Section 4(f) preliminary findings related to the ATMP's potential impacts to Pt. Tiburon Shoreline Park. You may respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding by close of business Friday, November 4, 2022.

Thank you,
Eric Elmore

From: Patrick Kerslake <pkerslake@townoftiburon.org>
Sent: Thursday, October 6, 2022 9:35 AM
To: ATMPTeam <ATMPTeam@dot.gov>
Cc: Elmore, Eric <FAA> <eric.elmore@faa.gov>
Subject: RE: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

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Good Morning,

My apologies for the delayed response, would it be acceptable if we provide a response by the end of the day tomorrow?

Thank you,

Patrick Kerslake
Operations Manager | Department of Public Works
1505 Tiburon Boulevard | Tiburon, California 94920
Tel: 415-435-7399 | Email: pkerslake@townoftiburon.org

From: ATMPTeam <ATMPTeam@dot.gov>
Sent: Wednesday, September 28, 2022 11:26 AM
To: Patrick Kerslake <pkerslake@townoftiburon.org>
Cc: ATMPTeam <ATMPTeam@dot.gov>; Elmore, Eric <FAA> <eric.elmore@faa.gov>
Subject: RE: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

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Dear Patrick Kerslake,

This email serves as a reminder to please provide any feedback on the Federal Aviation Administration's preliminary findings in accordance with Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)) related to potential impacts to Pt. Tiburon Shoreline Park, which is a protected property under Section 4(f), by October 5th (see email below).

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

From: ATMPTeam <ATMPTeam@dot.gov>

Sent: Wednesday, September 21, 2022 10:00 AM

To: pkerslake@townoftiburon.org

Cc: ATMPTeam <ATMPTeam@dot.gov>; Elmore, Eric <FAA> <eric.elmore@faa.gov>

Subject: Section 4(f) Consultation - Air Tours at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Dear Patrick Kerslake,

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS), is developing an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks). The FAA is preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws, including Section 4(f) of the U.S. Department of Transportation Act (Section 4(f)). The purpose of the attached letter is to coordinate with you on FAA's preliminary findings related to the ATMP's potential impacts to Pt. Tiburon Shoreline Park, which is a protected property under Section 4(f).

We request that you review the attached letter and respond with any concerns or need for further consultation on the FAA's proposed no substantial impairment finding within fourteen days of receiving this email.

Should you have any questions regarding any of the above, please contact Eric Elmore at 202-267-8335 or eric.elmore@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

APPENDIX E

Endangered Species Act: Section 7 Compliance Documentation



United States Department of the Interior
NATIONAL PARK SERVICE
Natural Resource Stewardship & Science
Natural Sounds and Night Skies Division



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

October 5, 2022

Re: Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore Air Tour Management Plan
Section 7 Endangered Species Act No Effect Determination and Evaluation of Other Species of Concern

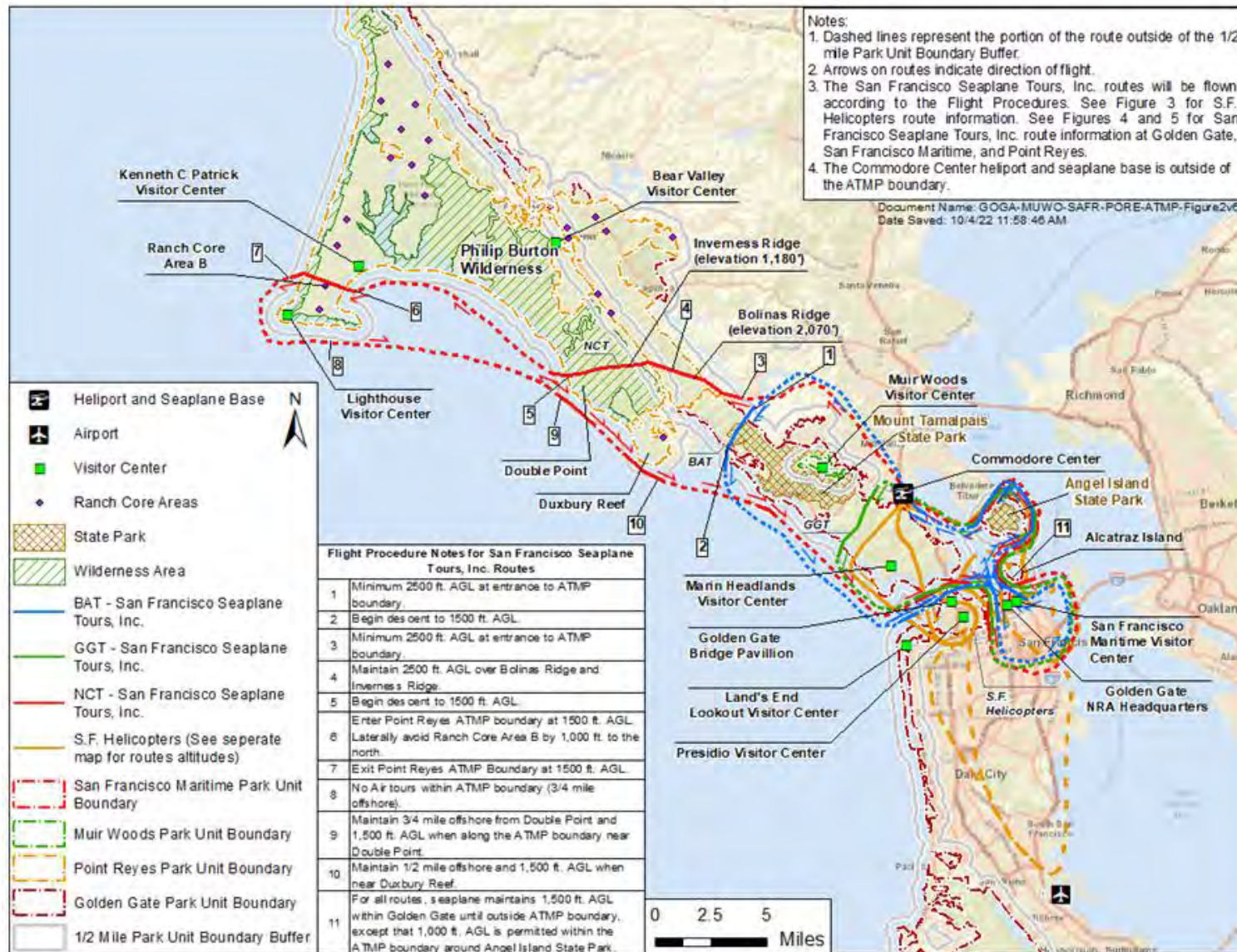
The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS) (collectively, the agencies), is developing an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks or project area). The agencies are preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act and other applicable laws. This memo documents the agencies' No Effect determination associated with the proposed action for the purpose of compliance with Section 7 of the Endangered Species Act (ESA). In addition, this memo documents the analysis for other species of concern.

Action Area and Description of Proposed Action

The project area includes the Parks and the land within a ½-mile boundary from the Parks depicted in Figure 1. This area encompasses all of the effects of the proposed action. The ATMP applies to all commercial air tours over the Parks and commercial air tours within ½ mile outside the boundary of the Parks. A commercial air tour subject to the ATMP is any flight, conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing over the Parks, during which the aircraft flies:

- (1) Below 5,000 feet above ground level (except solely for the purposes of takeoff or landing, or necessary for safe operation of an aircraft as determined under the rules and regulations of the FAA requiring the pilot-in-command to take action to ensure the safe operation of the aircraft); or
- (2) Less than one mile laterally from any geographic feature within the Parks (unless more than ½-mile outside the boundary of the Parks).

The proposed action is implementation of an ATMP for the Parks which establishes the following conditions for the management of commercial air tour operations.



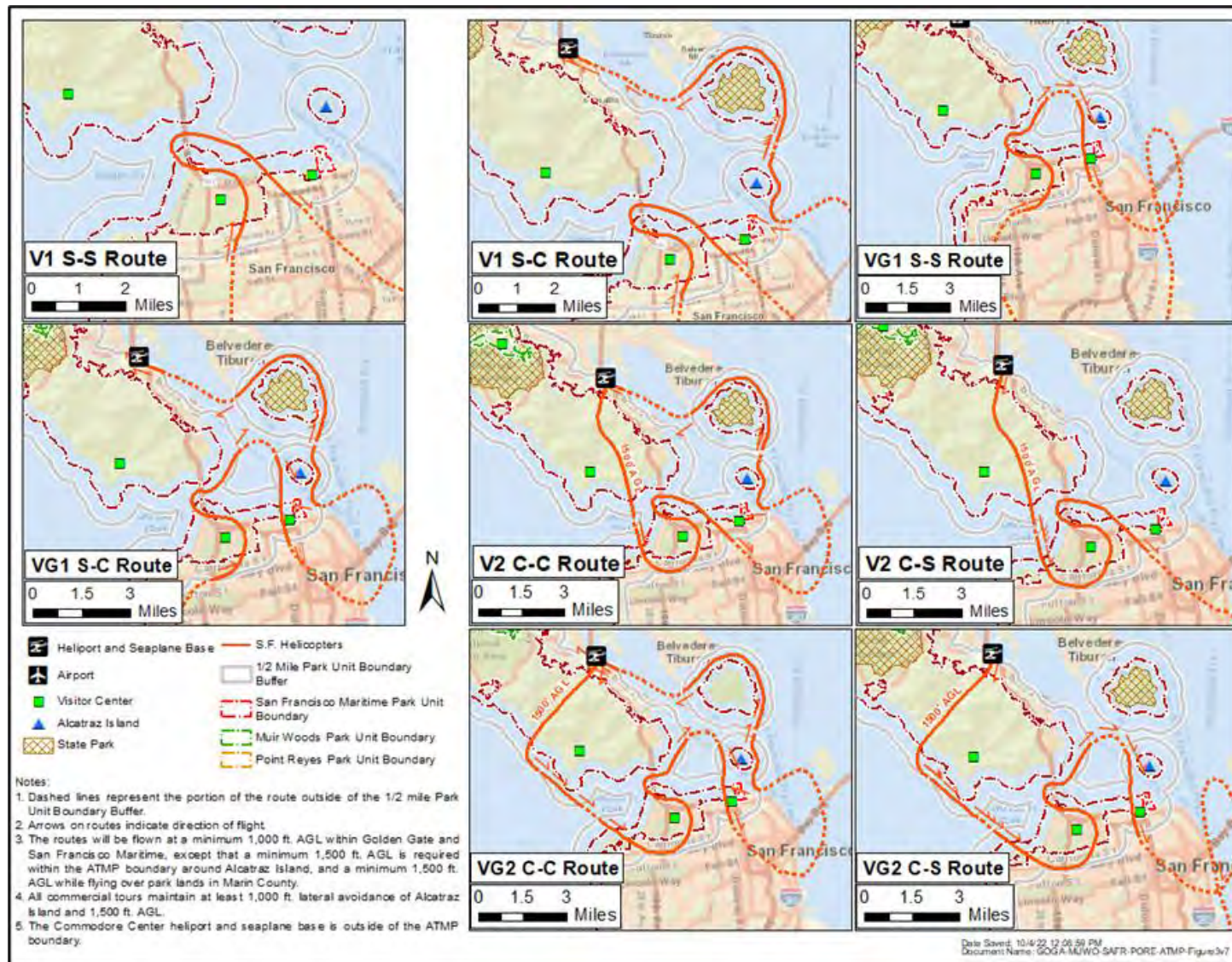


Figure 2 Commercial air tour routes for helicopters over Golden Gate National Recreation Area and San Francisco Maritime National Historic Park

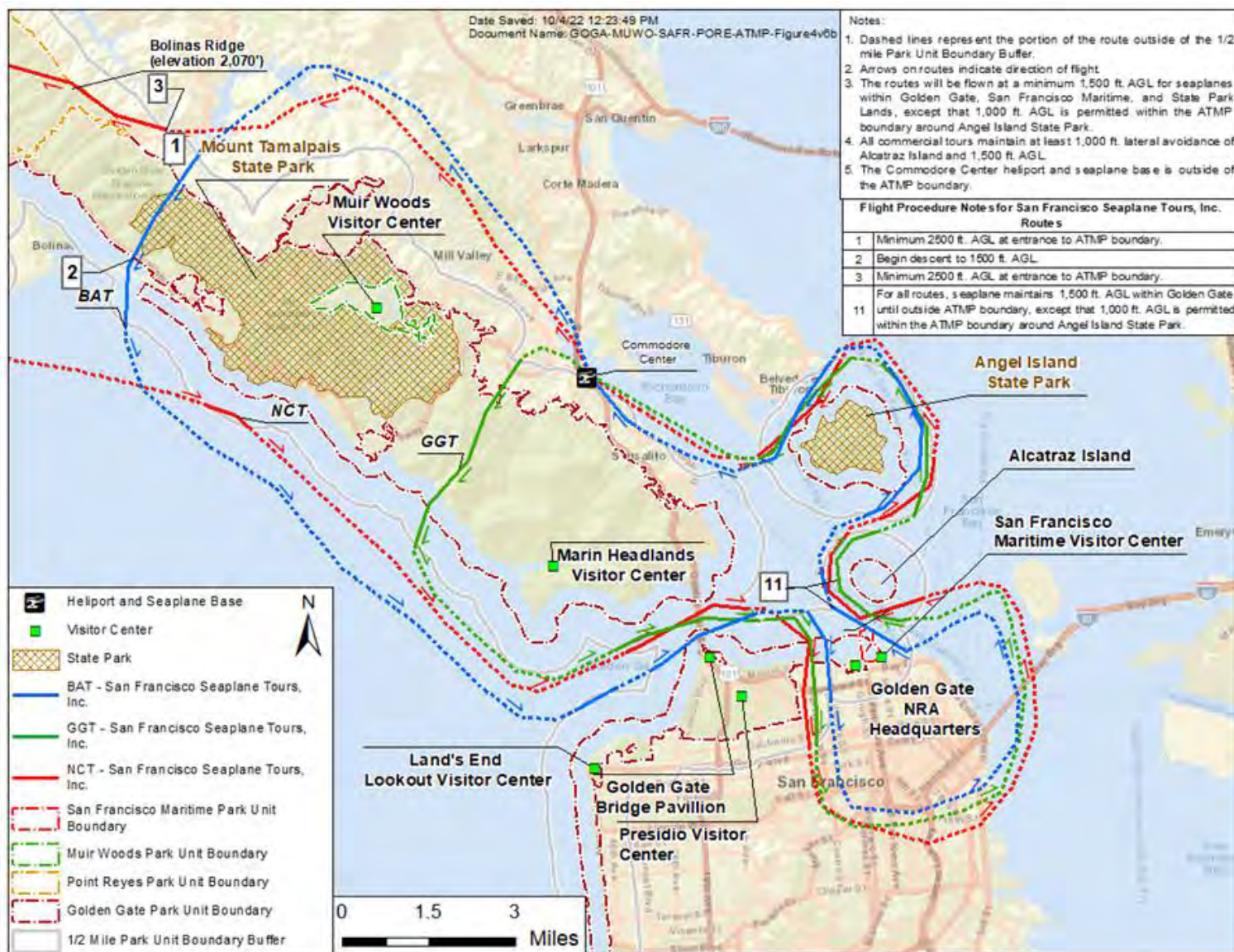


Figure 3 Commercial air tour routes for fixed-wing aircraft over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

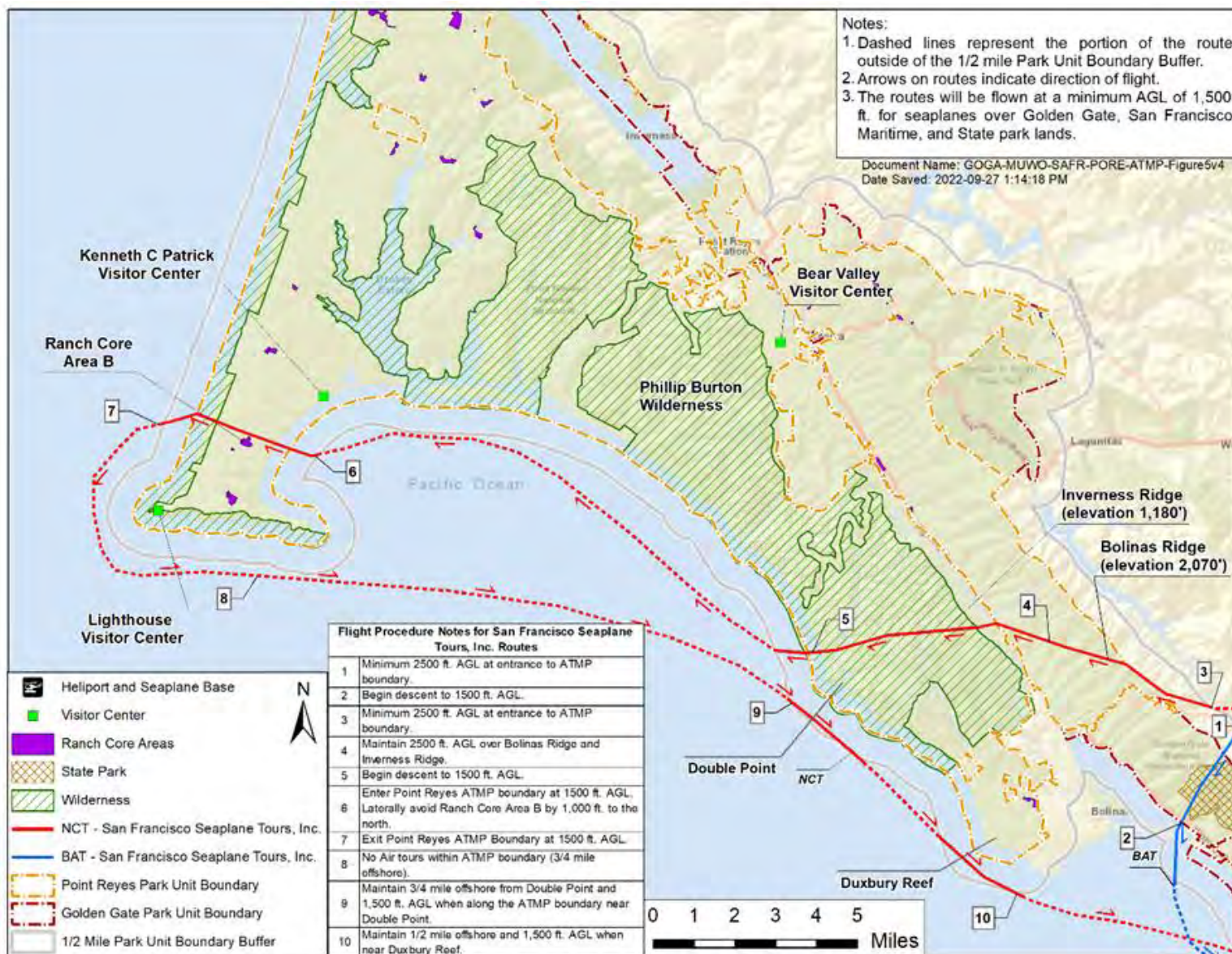


Figure 4 Commercial air tour route over Point Reyes National Seashore

Commercial Air Tours Authorized

Under the ATMP 2,548 commercial air tours per year are authorized. Of these, up to 143 commercial air tours per year may fly over Point Reyes National Seashore. No commercial air tours authorized over Point Reyes National Seashore may be flown using helicopters. No commercial air tours are authorized over Muir Woods National Monument.

Commercial Air Tour Routes and Altitudes

The ATMP implements the designated routes and minimum altitudes above ground level (AGL) that commercial air tours are required to fly (see Figure 1). Air tours conducted with fixed-wing aircraft will fly no lower than 1,000 to 2,500 feet (ft.) AGL depending on location. Air tours conducted with helicopters will fly no lower than 1,000 to 1,500 ft. AGL depending on location. All commercial tours will maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs (current routes as depicted on Figure 1 achieve 1,000 ft. lateral avoidance requirements).

Day/Time

Except as provided in the section below entitled “Quiet Technology Incentives,” air tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park may operate from 9:00 AM until 30 minutes after sunset, as defined by National Oceanic and Atmospheric Administration (NOAA)¹. Air tours of Point Reyes National Seashore may operate from 12:00 PM to 5:00 PM.

Required Reporting

As part of the ATMP, commercial air tour operators are required to equip all aircraft used for commercial air tours with flight monitoring technology and to submit these tracking data to the agencies. Operators are also required to submit semi-annual reports confirming the number of commercial air tours conducted within the ATMP boundary and implementation of the ATMP flight parameters.

Quiet Technology Incentives

This ATMP incentivizes the adoption of quiet technology aircraft by commercial air tour operators. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft, may request to be allowed to conduct tours of Golden Gate National Recreation Area and San Francisco Maritime National Historic Landmark beginning one hour after sunrise, as defined by NOAA, on all days that flights are authorized¹, and the operator with allocations for Point Reyes National Seashore may request to conduct air tours of Point Reyes National Seashore beginning at 11:00 AM on all days that flights are authorized. If implementation of this incentive results in a change in existing conditions or a change in the effects of air tour noise on the Parks’ resources or visitor enjoyment, additional analysis may be required in order to ensure the continued effectiveness of the incentive.

¹ Sunrise and sunset data is available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

Bird Aircraft Strike Reporting:

Operators will report all bird strikes that occur during commercial air tours within the ATMP boundary per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes, using OMB approved form No. 2120-0045. The report(s) must be submitted to NPS and FAA with the semi-annual reports required in 3.6A of the ATMP.

Daily Air Tour Allocations:

This ATMP includes restrictions on the number of air tours that San Francisco Seaplane Tours, Inc. may conduct each day on the route authorized over Point Reyes National Seashore (Red Route). On Standard Days, San Francisco Seaplane Tours, Inc., may conduct one commercial air tour per day. Up to five Flex Days are permitted per year on which San Francisco Seaplane Tours, Inc., may conduct two commercial air tours per day.

Hovering:

Aircraft hovering in place is prohibited.

Species Evaluated for Effects

The U.S. Fish and Wildlife Service's (USFWS) Information Planning and Consultation (IPaC) tool was used to determine the potential for any federal threatened and endangered species or designated critical habitat that may occur within this area. Federally listed species that may occur within the project area are listed in Table 1 below.

The agencies analyzed potential impacts for all federally listed species with suitable habitat within the project area with a focus on two federally listed species: western snowy plover (*Charadrius nivosus nivosus*) and northern spotted owl (*Strix occidentalis caurina*) which are noise sensitive species that occur within the project area. The agencies also analyzed potential impacts to non-ESA listed species including peregrine falcons (*Falco peregrinus*), Brandt's cormorants (*Phalacrocorax penicillatus*), common murrelets (*Uria aalge*), and harbor seals (*Phoca vitulina*).

The proposed action does not involve ground-disturbing activities or other activities with the potential to impact aquatic or terrestrial habitat. Therefore, reptiles, amphibians, fishes, insects, or flowering plant species will not be impacted by commercial air tours. Listed marine mammals are protected from aircraft disturbance by minimum AGL limits at or above those established by NOAA to protect Marine Sanctuary areas.

Table 1 Federally Listed Species Potentially Occurring within the Action Area

Mammals Common Name	Mammals Scientific Name	Mammals Status (Federal)	Mammals Critical Habitat (Y or N)	Mammals Present at PORE (Y or N) ²	Mammals Present at GOGA (Y or N) ²
Salt Marsh Harvest Mouse	<i>Reithrodontomys raviventris</i>	Endangered	N	N	N
Southern Sea Otter	<i>Enhydra lutris nereis</i>	Threatened	N	Y	N
Blue Whale	<i>Balaenoptera musculus</i>	Endangered	N	Y	Y
Western Pacific Gray Whale	<i>Eschrichtius robustus</i>	Delisted	N	Y	Y
Sothern Resident Killer Whale	<i>Orcinus orca</i>	Endangered	Y	Y	Y
Humpback Whale	<i>Megaptera novaeangliae</i>	Mexico DPS Threatened; Central America DPS Endangered	Y	Y	Y
North Pacific Right Whale	<i>Eubalaena japonica</i>	Endangered	N	N	N
Guadalupe Fur Sea	<i>Arctocephalus townsendi</i>	Threatened	N	Y	Y
Sei whale	<i>Balaenoptera borealis</i>	Endangered	N	Y	Y
Fin whale	<i>Balaenoptera physalus</i>	Endangered	N	Y	Y
Birds Common Name	Birds Scientific Name	Birds Status (Federal)	Birds Critical Habitat (Y or N)	Birds Present at PORE (Y or N) ²	Birds Present at GOGA (Y or N) ²
California Clapper Rail	<i>Rallus longirostris obsoletus</i>	Endangered	N	Y	Y
California Least Tern	<i>Sterna antillarum browni</i>	Endangered	N	Y	Y
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	Threatened	Y	Y	Y
Northern Spotted Owl	<i>Strix occidentalis caurina</i>	Threatened	N	Y	Y

Short-tailed Albatross	<i>Phoebastria (=Diomedea) albatrus</i>	Endangered	N	Y	N
Western Snowy Plover	<i>Charadrius nivosus nivosus</i>	Threatened	Y	Y	Y
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened	N	Y	Y
Reptiles Common Name	Reptiles Scientific Name	Reptiles Status (Federal)	Reptiles Critical Habitat (Y or N)	Reptiles Present at PORE (Y or N) ²	Reptiles Present at GOGA (Y or N) ²
Green Sea Turtle	<i>Chelonia mydas</i>	Threatened	N	Y	N
Olive Ridley Turtle	<i>Lepidochelys olivacea</i>	Threatened	N	Y	N
Amphibians Common Name	Amphibians Scientific Name	Amphibians Status (Federal)	Amphibians Critical Habitat (Y or N)	Amphibians Present at PORE (Y or N) ²	Amphibians Present at GOGA (Y or N) ²
California Red-legged Frog	<i>Rana draytonii</i>	Threatened	Y	Y	Y
California Tiger Salamander	<i>Ambystoma californiense</i>	Threatened	N	N	N
Fishes Common Name	Fishes Scientific Name	Fishes Status (Federal)	Fishes Critical Habitat (Y or N)	Fishes Present at PORE (Y or N) ²	Fishes Present at GOGA (Y or N) ²
Delta Smelt	<i>Hypomesus transpacificus</i>	Threatened	N	N	N
Tidewater Goby	<i>Eucyclogobius newberryi</i>	Endangered	N	Y	Y
North American Green Sturgeon ³	<i>Acipenser medirostris</i>	Threatened	Y	N	N
Chinook Salmon ³	<i>Oncorhynchus tshawytscha</i>	Endangered	Y	Y	Y
Central California Coast Steelhead	<i>Oncorhynchus mykiss</i>	Threatened	Y	Y	N
California Central Valley Steelhead	<i>Oncorhynchus mykiss</i>	Threatened	Y	Y	N
Sacramento River Winter-run Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Endangered	Y	Y	N

Central Valley Spring-run Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Threatened	Y	Y	N
Insects Common Name	Insects Scientific Name	Insects Status (Federal)	Insects Critical Habitat (Y or N)	Insects Present at PORE (Y or N) ²	Insects Present at GOGA (Y or N) ²
Bay Checkerspot Butterfly	<i>Euphydryas editha bayensis</i>	Threatened	N	N	N
Callippe Silverspot Butterfly	<i>Speyeria callippe callippe</i>	Endangered	N	N	N
Mission Blue Butterfly	<i>Icaricia icarioides missionensis</i>	Endangered	N	N	Y
Myrtle's Silverspot Butterfly	<i>Speyeria zerene myrtleae</i>	Endangered	Y	Y	N
San Bruno Elfin Butterfly	<i>Callophrys mossii bayensis</i>	Endangered	N	N	Y
Flowering Plants Common Name	Flowering Plants Scientific Name	Flowering Plants Status (Federal)	Flowering Plants Critical Habitat (Y or N)	Flowering Plants Present at PORE (Y or N) ²	Flowering Plants Present at GOGA (Y or N) ²
Baker's Larkspur	<i>Delphinium bakeri</i>	Endangered	N	N	N
Beach Layia	<i>Layia carnosa</i>	Endangered	N	Y	Y
Clover Lupine	<i>Lupinus tidestromii</i>	Endangered	N	N	N
Contra Costa Goldfields	<i>Lasthenia conjugens</i>	Endangered	N	N	N
Fountain Thistle	<i>Cirsium fontinale</i> var. <i>fontinale</i>	Endangered	N	N	N
Franciscan Manzanita	<i>Arctostaphylos franciscana</i>	Endangered	N	N	N
Hickman's Potentilla	<i>Potentilla hickmanii</i>	Endangered	N	N	N
Marin Dwarf-flax	<i>Hesperolinon congestum</i>	Threatened	N	N	Y
Marsh Sandwort	<i>Arenaria paludicola</i>	Endangered	N	N	N
Presidio Clarkia	<i>Clarkia franciscana</i>	Endangered	N	N	Y

Presidio Manzanita	<i>Arctostaphylos hookeri</i> var. <i>ravenii</i>	Endangered	N	N	N
Robust Spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	Endangered	N	Y	N
San Francisco Lessingia	<i>Lessingia germanorum</i> (=L.g. var. <i>germanorum</i>)	Endangered	N	N	N
San Mateo Thornmint	<i>Acanthomintha obovata</i> ssp. <i>duttonii</i>	Endangered	N	N	N
San Mateo Woolly Sunflower	<i>Eriophyllum latilobum</i>	Endangered	N	N	Y
Santa Cruz Tarplant	<i>Holocarpha macradenia</i>	Threatened	N	N	N
Showy Indian Clover	<i>Trifolium amoenum</i>	Endangered	N	N	Y
Sonoma Alopecurus	<i>Alopecurus aequalis</i> var. <i>sonomensis</i>	Endangered	N	Y	Y
Sonoma Spineflower	<i>Chorizanthe valida</i>	Endangered	N	Y	Y
Sonoma Sunshine	<i>Blennosperma bakeri</i>	Endangered	N	N	N
Tiburon Jewelflower	<i>Stephananthus niger</i>	Endangered	N	N	N
Tiburon Mariposa Lily	<i>Calochortus tiburonensis</i>	Threatened	N	N	N
Tiburon Paintbrush	<i>Castilleja affinis</i> ssp. <i>Neglecta</i>	Endangered	N	N	Y
Tidestrom's lupine	<i>Lupinus tidestromii</i>	Endangered	N	Y	Y
White-rayed Pentachaeta	<i>Pentachaeta bellidiflora</i>	Endangered	N	N	N
Yellow Larkspur	<i>Delphinium luteum</i>	Endangered	N	N	N

² Based on NPS species list,
<https://irma.nps.gov/NPSpecies/Search/SpeciesList>

Northern Spotted Owl

The northern spotted owl is a noise sensitive listed species associated with the project area. Northern spotted owls are likely to be disrupted by loud noises that occur in close proximity to an active nest or when the activity occurs within the line-of-sight of the nesting birds. Sound generating activities located within close proximity of occupied nest sites or unsurveyed suitable habitat during the early breeding and nesting season have the potential to adversely affect northern spotted owls (USFWS 2013).

The nesting season for northern spotted owls is from February 1 to July 31 (AFWO 2006). The Parks support breeding northern spotted owls in nearly all of our coniferous and native evergreen forested habitat in Marin County. The project area contains approximately 34,000 acres of suitable spotted owl habitat, which extends up to an elevation of about 2,000 feet. Habitat within the project area supports about 50 spotted owl territories with pairs, many of which will attempt to nest each spring.

All air tours over northern spotted owl habitat would be at least 1,500 ft AGL. This altitude is consistent with the avoidance recommendations (USFWS 2013) for northern spotted owl habitat (no closer than 0.25 mile/1,320 feet by small, fixed-wing aircraft). Noise from a fixed-wing aircraft at 1,500 ft AGL (DHC-2 Beaver floatplane, 70 decibels (dB) L_{max}) is below the sound-only injury threshold of 92 dB for spotted owls (AFWO 2006 and 2012). In addition, there will be no landing within the project area boundaries.

Western snowy plover

The western snowy plover is a federally listed species. Point Reyes National Seashore supports both breeding and overwintering snowy plovers on park beaches and dune habitat. Golden Gate National Recreation Area supports overwintering plovers at Crissy Field Wildlife Protection Area within the project area. Snowy plovers are sensitive to both noise and visual disturbance which may cause them to flush from nests or roost sites. Minimum limits of 1,000 ft. AGL vertical buffers would be protective of western snowy plovers.

Seabirds

Brandt's cormorants, and common murres are colonial nesting seabirds that are known to be sensitive to visual and noise disturbance. Although not federally listed, these birds are protected under the Migratory Bird Treaty Act and were designated a bird of conservation concern for the continental USFWS (2021). Disturbance from overflights can cause agitation or flushing, and even lead to nest failures. Greater Farallones Marine Sanctuary (GFMS) has regulations requiring pilots to remain above 1,000 ft. AGL in seven designated areas (15 CFR Part 82(a)(11)). Pilots flying below this threshold in these zones are assumed to be disturbing seabirds and marine mammals. Studies of aircraft disturbance to both Brandt's cormorants and common murres support a 1,000 ft. AGL buffer to prevent flushing, with greater distance to prevent all forms of disturbance (Fuller et al. 2018, Capitolo et al. 2014, and Rojek et al. 2007). Other signs of disturbance are typically related to agitation and include head bobbing, neck extension, wing-flapping, and displacement (moving but not flushing) (Fuller et al. 2018 and Rojek et al. 2007). Agitation behaviors often precede flushing, and can also lead to nest failure even when birds don't flush.

Reducing disturbance to our nesting seabirds is important, as the cumulative effects of disturbance may reduce breeding success and even adult survivorship (Farallon Institute 2021).

Alcatraz Island is a regionally significant site for colonial nesting seabirds and waterbirds, as well as a pair of peregrine falcons. Alcatraz is the most sensitive wildlife location in the Golden Gate National Recreation Area from February through September, when over 10,000 nesting birds and their young occur on the Island. A 1,500 ft. AGL limit and 1,000 ft. lateral avoidance for all air tours over and around Alcatraz would minimize disturbance to the sensitive waterbird nesting colonies at Alcatraz. Golden Gate National Recreation Area has a long history of working with aircraft, boaters, swimmers, visitors to the Island, and Park operations to minimize disturbance to the Alcatraz breeding colonies. Additionally, as a significant breeding site for colonial seabird and waterbird species, Alcatraz Island may serve as a “climate refuge” in the near future for safeguarding offshore species from the effects of climate change (Seher et al. 2022). Minimizing the potential for aircraft disturbances by maintaining a 1,500 -AGL vertical limit over Alcatraz and a 1,000 ft. lateral avoidance of the Island will increase the likelihood of successful breeding and retention of these waterbird colonies for future conservation.

Peregrine Falcons

Peregrine falcons are a disturbance sensitive cliff nesting raptor that was delisted from the ESA in 1999. Peregrines are gradually recovering in the San Francisco Bay Area and occur within the project area. Falcons are protected under the Migratory Bird Treaty Act. Disturbance from overflights can cause agitation or flushing, and even lead to nest failures.

Based on USFWS guidance, GFMS regulations, and studies referenced in this memo, the required 1,000 ft. vertical and lateral buffer for sensitive peregrine falcon nest sites in the areas surrounding the project area would prevent disturbance of nesting and foraging peregrine falcons.

Marine Mammals

Significant haul outs and pupping areas for harbor seals are located in Bonita Cove, adjacent to Point Bonita (Golden Gate National Recreation Area), and at Double Point (Point Reyes National Seashore). Harbor seals also haul out in smaller groups in areas around the Point Reyes Headlands and along the rocky coastlines of Point Reyes National Seashore and Golden Gate National Recreation Area. Harbor seals are sensitive to visual and noise disturbance and are protected under the Marine Mammal Protection Act. Disturbance at haul out sites cause seals to flush into the water, expending extra energy. Based on the NPS staffs’ experience with voluntary flight restrictions placed at Alcatraz Island, as well as other USFWS guidance, GFMS regulations, and studies referenced in this memo, the required 1,000 ft. vertical and lateral buffer would protect significant marine mammal haul outs in the areas surrounding the project area. The lateral buffer would be a minimum of 1,000 ft. but could be greater than 1,000 ft. depending on the location of the flight along the route. Though the ATMP does not depict the location of marine mammal haul outs, due to the sensitivity of these resources, the designated routes and minimum altitudes in ATMP require operators to maintain minimum altitude of 1,500 ft. AGL when commercial air tours fly over or near these areas. This minimum altitude was set because it will provide greater protection for this sensitive species. The 1,000 to 1,500 ft. vertical and lateral buffer would also protect other marine mammals that may occur within the ATMP boundary.

Conclusion

No effect means that there would be no consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the

proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

As indicated above, the proposed action would designate routes, require minimum altitudes, establish time of day restrictions, and limit the number of air tours conducted daily and on an annual basis. The measures enumerated above incorporated into the ATMP would serve to avoid and minimize possible effects to listed species and their critical habitat. Therefore, the ATMP results in no meaningful, measurable or noticeable impact on the species listed in Table 1. In accordance with Section 7 of the ESA, the agencies have determined that the proposed project would have No Effect on threatened and endangered species or their critical habitats.

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APPENDIX F

National Historic Preservation Act: Section 106 Compliance Documentation



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Office of Policy, International Affairs & Environment
Office of Environment and Energy

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

August 30, 2022

Re: Section 106 Consultation and Finding of No Adverse Effect under Section 106 of the National Historic Preservation Act for the Development of an Air Tour Management Plan for Four California National Park Service Units

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Dear Julianne Polanco:

Introduction

The Federal Aviation Administration (FAA), in coordination with the National Park Service (NPS), seeks to continue consultation with your office under Section 106 of the National Historic Preservation Act (NHPA) for the development of an Air Tour Management Plan (ATMP) for Golden Gate Recreation Area (Golden Gate), San Francisco Maritime National Historical Park (San Francisco Maritime), Point Reyes National Seashore (Point Reyes), and Muir Woods National Monument (Muir Woods) (collectively, the Parks). At this time, the FAA requests your concurrence with its proposed finding that the undertaking would have no adverse effect on historic properties, in accordance with 36 CFR 800.5(c). On this date, we are also notifying all consulting parties of this proposed finding and providing the documentation below for their review.

In accordance with the requirements of 36 CFR 800.11(e), this letter describes the undertaking, including: changes that have occurred since the draft ATMP was issued to the public; the Area of Potential Effects (APE); a description of steps taken to identify historic properties; a description of affected historic properties in the APE and the characteristics that qualify them for the National Register of Historic Places (NRHP); and an explanation of why the criteria of adverse effect are inapplicable. This letter also describes the Section 106 consultation process and public involvement for this undertaking.

The FAA initiated Section 106 consultation with your office by letter dated March 29, 2021. In a follow-up letter dated October 15, 2021, we described the proposed undertaking in more detail, proposed a preliminary APE, and provided our initial list of historic properties identified within the APE. FAA conducted additional identification efforts and provided a revised list of historic properties in our most

recent correspondence dated March 15, 2022. Similar letters were sent to all consulting parties; Section 106 consultation with tribes is described below. Public involvement for this undertaking was integrated with the National Parks Air Tour Management Act (NPATMA) process. We published a notice of availability of the draft ATMP in the Federal Register on October 15, 2021. The public comment period on the draft ATMP was October 15, 2021, through November 15, 2021. A public meeting was held October 26, 2021.

The FAA and the NPS received several public comments about potential visual effects from commercial air tours. However, none of those commenters expressed specific concerns regarding such visual effects to historic properties. Many comments were submitted about potential noise effects from commercial air tours. Commenters stated that Congress developed the Act (NPATMA) out of concern that noise from air tours could harm national park resources, values, and experiences for visitors. Commenters also noted air tours would violate NPS Director's Order #47 and the 2006 NPS Management Policies § 4.9 which states that the NPS "will preserve, to the greatest extent possible, the natural soundscapes of parks." Another commenter also referenced the 1994 Report to Congress on Effects of Aircraft Overflights on the National Park System which the commenter contends explains the adverse impacts of aircraft overflight noise on Park resources and values.¹ Chapter 4 of that report is dedicated to "Effects on Cultural and Historic Resources, Sacred Sites, and Ceremonies."

The FAA and the NPS received comments from the public related to tribal concerns. One commenter noted there was a lack of tribal consultation in the draft ATMP and no indication which tribes contributed. The commenter noted the draft ATMP should acknowledge the cultural and historical significance of areas in these Parks. The commenter noted that as a result of the insufficient language regarding how this draft ATMP will respect American Indian sacred sites and ceremonial activities, the NPS should conduct additional analysis of these cultural sites and include additional tribal consultation.

The FAA and the NPS received a few public comments about potential effects on historic properties from commercial air tours. Commenters noted the draft ATMP provides no information regarding compliance with Section 106 of the NHPA and lacks necessary consultation with potentially affected Native American tribes and should not be signed by the NPS until consultation is complete. Referring to the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations and the agencies' NEPA policies, NHPA compliance, and other applicable federal statutes, one commenter stated these should be integrated into the NEPA document prepared for the proposed action and failing to do so violates NEPA process requirements.

Description of the Undertaking

The FAA and the NPS are developing ATMPs for multiple parks, including an ATMP for Golden Gate, San Francisco Maritime, Point Reyes, and Muir Woods. The ATMPs are being developed in accordance with NPATMA. Each ATMP is unique and therefore, each ATMP is being assessed individually under Section 106.

Commercial air tours have been operating over Golden Gate, San Francisco Maritime, and Point Reyes for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authority (IOA) that the FAA was required to grant under NPATMA. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than an annual limit on the number of air tours per year; two commercial air tour operators, San Francisco Helicopters, LLC and San

¹ <https://www.nonoise.org/library/npreport/intro.htm>

Francisco Seaplane Tours, Inc., hold IOA to conduct a combined total of 5,090 commercial air tours over each of the Parks or within ½ mile of their boundaries each year. The ATMP will replace IOA.

The FAA and the NPS have documented the existing conditions for commercial air tour operations over the Parks. The FAA and the NPS consider the existing operations for commercial air tours to be an average of 2017-2019 annual air tours flown, which is 2,548 air tours. The agencies decided to use a three-year average because it reflects the most accurate and reliable air tour conditions based on available operator reporting, and accounts for variations across multiple years, excluding more recent years affected by the COVID 19 pandemic.

Commercial air tours currently are provided by two different operators and are conducted using DHC-2-MKI fixed-wing aircraft and BHT-407-407 and BHT-427-427 helicopters. Under existing conditions, commercial air tours are conducted on the routes shown in **Attachment A**. Commercial air tour operations presently fly between 800 ft. and 2,500 ft. above ground level (AGL)² depending on the location over the Parks³ and are generally flown on four different routes⁴, also shown in **Attachment A**, though they are not required to fly on any particular route.

The ATMP would result in commercial air tours being conducted along the routes shown in **Attachment A**. These routes fly over the Parks and ½ mile buffer for approximately 27 miles. The ATMP will require operators to fly the designated routes depicted in **Attachment A**. As noted above, under existing conditions, operators generally adhere to the routes depicted in **Attachment A** but are not obligated to do so.

The undertaking for purposes of Section 106 is implementing the ATMP that applies to all commercial air tours over the Parks and within ½ mile outside the boundary of each Park. A commercial air tour subject to the ATMP is any flight conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing over the Parks, or within ½ mile of its boundary, during which the aircraft flies:

- (1) Below 5,000 feet above ground level (except solely for the purposes of takeoff or landing, or necessary for safe operation of an aircraft as determined under the rules and regulations of the FAA requiring the pilot-in-command to take action to ensure the safe operation of the aircraft); or
- (2) Less than one mile laterally from any geographic feature within each Park (unless more than ½ mile outside the Park boundary).

Overflights that do not meet the definition of a commercial air tour above are not subject to NPATMA and are thus outside the scope of the ATMP.

The undertaking was previously described in detail in our Section 106 consultation letter dated October 15, 2021. The following elements of the ATMP have remained unchanged since the issuance of the draft

² Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft, whereas altitude expressed in median sea level (MSL) refers to the altitude of aircraft above sea level, regardless of the terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at varying AGL altitudes, and vice versa, assuming uneven terrain is present below the aircraft.

³ No tours are currently flown over Muir Woods or within ½ mile of its boundary.

⁴ The S.F. Helicopter route shown in Attachment A is actually comprised of eight different routes flown by the operator, but are displayed as one route in Attachment A since the individual routes would not be discernable given the scale of the map.

ATMP to the public, a copy of which is available at:

<https://parkplanning.nps.gov/document.cfm?parkID=303&projectID=103175&documentID=115991>.

- A maximum of 2,548 commercial air tours are authorized per year. Of these, up to 143 may fly over Point Reyes. No tours over Point Reyes may be flown using helicopters and no tours are authorized over Muir Woods. Due to the location and proximity of Golden Gate and San Francisco Maritime all authorized tours overfly both of these parks;
- All commercial air tours will be required to fly on designated routes, depicted in **Attachment A** and in the ATMP. These routes require a 1,000 ft. lateral avoidance of Alcatraz Island, nesting shorebird colonies, peregrine falcon nests and marine mammal haul out; a ¼ mile lateral offset from Double Point; and a ½ mile lateral offset from Duxbury Reef, as depicted in included maps.
- All commercial air tours will be required to fly at certain minimum altitudes depending on the location type of aircraft and locations overflown. Air tours conducted with helicopters will fly no lower than 1,000 to 1,500 ft. AGL. All air tours will fly no lower than 2,000 ft AGL over land-based wilderness;
- The aircraft types authorized to be used for commercial air tours over Golden Gate and San Francisco Maritime are DHC-2-MKI fixed-wing aircraft and BHT-407-407 and BHT-427-427 helicopters. The aircraft type authorized to be used for tours that also fly over Point Reyes is a DHC-2-MKI fixed-wing aircraft. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced;
- Unless flown using aircraft that qualify for the quiet technology incentive, air tours of Golden Gate and San Francisco Maritime may operate from 9:00 AM until 30 minutes after sunset, as defined by the National Oceanic and Atmospheric Administration (NOAA),⁵ and air tours of Point Reyes may operate from 12:00 PM to 5:00 PM. Tours flown using aircraft that qualify for the quiet technology incentive may conduct air tours beginning one hour after sunrise.
- Air tours may operate any day of the year, except that the NPS may establish temporary no-fly periods that apply to commercial air tours for special events or planned Park management. Absent exigent circumstances or emergency operations, the NPS will provide a minimum of 15 days written notice to the operators for any restrictions that temporarily restrict certain areas or certain times of day, or 60 days written notice to the operators for any full-day restrictions in advance of the no-fly period. Events may include tribal ceremonies or other events;
- Operators would submit semi-annual reports to the FAA and the NPS regarding the number of commercial air tours conducted by the operators over the Parks;
- When made available by Park staff, the operators/pilots will take at least one training course per year conducted by NPS staff;
- At the request of either of the agencies, the Park staff, the local FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of the ATMP and any amendments or other changes to the ATMP.

In order to address comments received from participating tribes and other consulting parties through the Section 106 process and from members of the public submitted through the draft ATMP public

⁵ Sunrise and sunset data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

review specific to potential noise and visual effects to cultural, as well as biological, resources, the following changes to the undertaking at the Parks have been made:

- A new subsection was added to prohibit aircraft hovering in place.
- Air tours conducted using fixed-wing aircraft will fly no lower than 1,000 to 2,500 feet (ft.) AGL, depending on location (changed from 1,500 to 2,500 ft. AGL in the draft ATMP).
- The minimum altitude for helicopters over Alcatraz Island was changed from 1,000 ft. AGL to 1,500 ft. AGL with a 1,000 ft. lateral avoidance of the Island for protection of nesting waterbirds.
- The minimum altitude for fixed-wing aircraft on the air tour route around Angel Island was changed from 1,500 ft. AGL to 1,000 ft. AGL to align with helicopter operations since 1,000 ft. AGL is protective of park resources.
- The lateral offset required with respect to Core Ranch Area B was changed from 2,000 ft. to 1,000 ft., though aircraft must maintain a minimum altitude of 1,500 ft. AGL. The vertical and lateral avoidance requirements for Core Ranch Area B and other Core Ranch Areas in Point Reyes are intended to limit sound impacts and minimize disturbances to permitted dairy ranch operations and associated residential uses in the Point Reyes Peninsula Dairy Ranches Historic District.
- A new subsection was added that requires operators to report all bird strikes that occur during commercial air tours over the lands and waters covered by the ATMP per FAA Advisory Circular 150/5200-32B, Reporting Wildlife Aircraft Strikes, using OMB approved form No. 2120-0045.
- A new subsection was added in response to questions and comments regarding the transferability of air tour allocations, or the assumption of allocations of commercial air tours by a successor corporation. The added language makes clear that annual allocations of air tour operations are not transferrable between operators, though they may be assumed by a successor purchaser. Conditions are included to ensure that the agencies have sufficient time to review the transaction to avoid an interruption of service and the successor operator must acknowledge and agree to comply with the ATMP. This language is excerpted below:

Annual operations under the ATMP are non-transferable. An allocation of annual operations may be assumed by a successor purchaser that acquires an entity holding allocations under the ATMP in its entirety. In such case the prospective purchaser shall notify the FAA and the NPS of its intention to purchase the operator at the earliest possible opportunity to avoid any potential interruption in the authority to conduct commercial air tours under the ATMP. This notification must include a certification that the prospective purchase has read and will comply with the terms and conditions in the ATMP. The FAA will consult with the NPS before issuing new or modified operations specifications or taking other formal steps to memorialize the change in ownership.
- The agencies revised some of the language related to the quiet technology incentive, but not the incentive itself, in order to clarify that applications for the incentive will be analyzed on a case-by-case basis. The revised language is below:

The ATMP incentivizes the use of quiet technology aircraft by commercial air tour operators. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft may request to be allowed to conduct air tours beginning one hour after sunrise, as defined by NOAA, on all days that flights are authorized. Because aviation technology continues to evolve and advance and the FAA updates its noise certification standards periodically, the aircraft eligible for this incentive will be analyzed on a case-by-

case basis at the time of the operator's request to be considered for this incentive. The NPS will periodically monitor Parks' conditions and coordinate with the FAA to assess the effectiveness of this incentive. If implementation of this incentive results in unanticipated effects on Parks' resources or visitor experience, further agency action may be required to ensure the protection of Parks' resources and visitor experience;

- Minor edits were made to clearly state in various subsections that the ATMP applies not only to the area within the Park boundaries, but also to areas ½ mile outside the Park boundaries.
- In Section 5.0⁶ Compliance, edits were made to make clear that the public may report suspected instances of noncompliance with the ATMP's terms, and that the applicable Flight Standards District Office would respond to written reports of noncompliance, consistent with FAA guidance.
- Clarifying edits were made to Section 8.0 Adaptive Management to make clear that adaptive management actions may occur in response to input received from tribes.
- In Section 9.0 Amendment, the agencies clarified that additional environmental review would be required in order to increase the number of authorized commercial air tours per year above the 2,548 authorized in the ATMP. The revised language is below:

Increases to the total number of air tours authorized per year under the ATMP resulting from accommodation of a new entrant application or a request by an existing operator will require an amendment to the ATMP and additional environmental review. Notice of all amendments to this ATMP will be published in the Federal Register for notice and comment.
- A change was made in the frequency operators will utilize.

For situational awareness when conducting tours of the Parks, the operators will utilize frequency 124.3 Common Traffic Advisory Frequency and report when they enter and depart a route. The pilot should identify their company, aircraft, and route to make any other aircraft in the vicinity aware of their position.

Area of Potential Effects

The APE for the undertaking was proposed in the Section 106 consultation letter dated October 15, 2021. The undertaking does not require land acquisition, construction, or ground disturbance. In establishing the APE, the FAA sought to include areas where any historic property present could be affected by noise from or sight of commercial air tours over the Parks or adjacent tribal lands. The FAA considered the number and altitude of commercial air tours over historic properties in these areas to further assess the potential for visual effects and any incremental change in noise levels that may result in alteration of the characteristics of historic properties qualifying them as eligible for listing in the NRHP.

The APE for the undertaking comprises the entirety of San Francisco Maritime and Muir Woods, the central and southern portions of Point Reyes, and the northern part of Golden Gate as well as ½ mile outside the boundary of each Park or portion of the Parks, as depicted in **Attachment A** below. The FAA requested comments from all consulting parties including one federally recognized tribe. We received no comments from consulting parties regarding the APE. The changes to the undertaking described above do not have the potential to cause any additional effects to historic properties. The FAA has determined the delineated APE as initially proposed adequately captures potential effects from the undertaking on historic properties and remains unchanged.

⁶ Section 5.0 in the draft ATMP is Section 4.0 in the final ATMP.

Identification of Historic Properties

In accordance with 36 CFR 800.4, the FAA has made a reasonable and good faith effort to identify historic properties within the APE. Those efforts resulted in identification of 70 historic properties. All historic properties identified within the APE are listed in **Attachment B** and those with available non-restricted location data are shown in the APE map provided in **Attachment A**. The key for the mapped historic properties is also provided in **Attachment B**.

Preliminary identification of historic properties relied upon data submitted by NPS Park staff about known historic properties within the Parks. Section 106 consultation efforts involved outreach to tribes, the California State Historic Preservation Office, Northwest Information Center, operators, and other consulting parties including local governments and neighboring federal land managers. Public comments submitted as part of the draft ATMP public review process also informed identification efforts.

The FAA, in cooperation with the NPS, coordinated with Park staff to identify known historic properties located within the APE. A preliminary list of historic properties was provided to all consulting parties for their review and comment in a letter dated March 15, 2022. The FAA received no comments from consultation parties regarding the identification of historic properties. On January 25, 2022, FAA submitted a non-confidential extended record search request to the Northwest Information Center (NWIC) to collect data from the California Historical Resources Information System (CHRIS) to identify properties not included in the FAA's preliminary list of historic properties. On April 27, 2022, the FAA received data request results from NWIC, including those in **Attachment C**. The FAA also consulted with the Federated Indians of Graton Rancheria regarding the identification of any other previously unidentified historic properties, including traditional cultural properties (TCPs) that may also be located within the APE. The Federated Indians of Graton Rancheria did not identify additional historic properties within the APE.

As the undertaking would not result in physical effects, the identification effort focused on identifying properties where setting and feeling are characteristics contributing to a property's NRHP eligibility, as they are the type of historic properties most sensitive to the effects of aircraft overflights. These may include isolated properties where a cultural landscape is part of the property's significance, rural historic districts, outdoor spaces designed for meditation or contemplation, and certain TCPs. In so doing, the FAA has taken into consideration the views of consulting parties, past planning, research and studies, the magnitude and nature of the undertaking, the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature of historic properties within the APE in accordance with 36 CFR 800.4(b)(1).

Summary of Section 106 Consultation with Tribes

The FAA contacted the Federated Indians of Graton Rancheria, a federally recognized tribe, via letter on April 12, 2021, inviting them to participate in Section 106 consultations and requesting their expertise regarding historic properties, including TCPs that may be located within the APE. The Federated Indians of Graton Rancheria is included in the list of consulting parties enclosed as **Attachment D**. On October 15, 2021, the FAA sent the Federated Indians of Graton Rancheria a Section 106 consultation letter describing the proposed undertaking in greater detail in which we proposed an APE and provided the results of our preliminary identification of historic properties.

On December 9, 2021, the FAA sent a follow-up email to the Federated Indians of Graton Rancheria, who did not respond to our prior Section 106 consultation, once again inviting them to participate in Section 106 consultations. On December 21, 2021, the FAA followed up with a phone call and received a response from the Federated Indians of Graton Rancheria expressing interest in participating in the Section 106 consultation process.

In response to a meeting request by the Federated Indians of Graton Rancheria, the agencies held a government-to-government meeting with the Tribe on May 5, 2022. The Federated Indians of Graton Rancheria's concerns included having provisions in the ATMP that would account for any future changes in routes. The FAA informed the Tribe that the ATMP does provide for amendments to the plan, including route changes, however, that type of amendment would require additional environmental review, which would include tribal consultation, before any amendment is adopted. In an e-mail dated August 3, 2022, the Tribal Historic Preservation Officer for the Federated Indians of Graton Rancheria stated that the Tribe was comfortable with proceeding with the ATMP with the understanding that tribal consultation would be initiated if there are future route changes.

Assessment of Effects

The undertaking could have an effect on a historic property if it alters the characteristics that qualify the property for eligibility for listing or inclusion in the NRHP. The characteristics of the historic properties within the APE that qualify them for inclusion in the NRHP are described in **Attachment B**. Effects are considered adverse if they diminish the integrity of a property's elements that contribute to its significance. The undertaking does not include land acquisition, construction, or ground disturbance and will not result in physical effects to historic properties. The FAA, in coordination with the NPS, focused the assessment of effects on the potential for adverse effects from the introduction of audible or visual elements that could diminish the integrity of the property's significant historic features.

Assessment of Noise Effects

The undertaking would not alter the characteristics of historic properties within the APE because there would be no measurable change in audible effects from existing conditions. To assess the potential for the introduction of audible elements, including changes in the character of aircraft noise, the FAA and NPS considered whether there would be a change in the annual number, daily frequency, routes or altitudes of commercial air tours, as well as the type of aircraft used to conduct those tours.

The ATMP authorizes the same number of annual flights as the average number of flights from 2017-2019 and maintains routes similar to what is currently flown under existing conditions; therefore, any changes to overall noise impacts associated with commercial air tours over the Parks are expected to be minimal in both character and decibel level. Likewise, the ATMP authorizes the use of the DHC-2-MKI fixed-wing aircraft and BHT-407-407 and BHT-427-427 helicopters. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced.

The ATMP requires the operators to continue to fly on substantially the same routes at the same or increased altitudes than are flown under existing conditions (minimum 1,000 – 1,500 ft. AGL, depending on location over the Golden Gate and San Francisco Maritime for helicopter tours, and minimum 1,000 – 2,500 ft. AGL depending on location over Golden Gate, San Francisco Maritime and Point Reyes for fixed-wing tours). Increases in altitude, where they occur, will reduce maximum noise levels at sites directly below the commercial air tour routes. It should be noted that when the altitude of an aircraft is increased, the total area exposed to the noise from that aircraft may also increase depending on the surrounding terrain. Although the area exposed to noise might increase, this would not meaningfully

affect the acoustic environment because attenuation of noise from the higher altitude would most likely reduce noise levels depending on terrain and the transient nature of the impacts.

For purposes of assessing noise impacts from commercial air tours on the acoustic environment of the Parks under the National Environmental Policy Act (NEPA), the FAA noise evaluation is based on Yearly⁷ Day Night Average Sound Level (L_{dn} or DNL); the cumulative noise energy exposure from aircraft over 24 hours. The DNL analysis indicates that the undertaking would not result in any noise impacts that would be “significant” or “reportable” under FAA’s policy for NEPA.⁸

As part of the ATMP noise analysis, the NPS provided supplemental metrics to further assess the impact of commercial air tours in quiet settings. **Attachment E** provides further information about the supplemental noise metrics and presents the noise contours (i.e., graphical illustration depicting noise exposure) from the modeling.

Attachment E presents noise contours for the Time Above 35 dBA (the amount of time in minutes that aircraft sound levels are above 35 dBA) and time above 52 dBA. Noise related to commercial air tours is modeled to be greater than 35 dBA for less than 125 minutes a day within the APE and greater than 52 dBA for less than 25 minutes a day within the APE⁹. Many historic properties are clustered in areas where the duration above 35 dBA is less than 100 minutes on days when commercial air tours would occur. The Core Ranch Areas in Point Reyes are in an area where the duration above 35 dBA is between 0 and 10 minutes on days when commercial air tours would occur. Because noise is modeled using conservative assumptions (see **Attachment E**) and implementing the ATMP would result in limiting the number of flights to be consistent with the three-year average of flights flown from 2017-2019 using the similar routes and the same aircraft to fly at higher altitudes, noise impacts are not expected to measurably change under the ATMP. Because the ATMP would result in minimal changes to noise levels on historic properties compared to existing conditions, the undertaking would not diminish the integrity of any historic property’s significant historic features.

Assessment of Visual Effects

The undertaking would not alter the characteristics of historic properties within the APE because there would be no measurable change in visual effects from existing conditions. The level of commercial air tour activity under the ATMP is expected to improve or remain the same. The ATMP sets the number of commercial air tours consistent with the three-year average from 2017-2019 and implements limits on the number of flights and times of day during which commercial air tours are able to operate. These limits do not currently exist.

Recognizing that some types of historic properties may be affected by visual effects of commercial air tours, the FAA and NPS considered the potential for the introduction of visual elements that could alter the characteristics of a historic property that qualifies it for inclusion in the NRHP. Aircraft are transitory

⁷ Yearly conditions are represented as the Average Annual Day (AAD)

⁸ Under FAA policy, an increase in the Day-Night Average Sound Level (DNL) of 1.5 dBA or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dBA noise exposure level, or that will be exposed at or above the DNL 65 dBA level due to a DNL 1.5 dBA or greater increase, is significant. FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Exhibit 4-1. Noise increases are “reportable” if the DNL increases by 5 dB or more within areas exposed to DNL 45-60 dB, or by 3 dB or more within areas exposed to DNL 60-65 dB. FAA Order 1050.1F, Appendix B, section B-1.4.

⁹ See note preceding Figure 1 in the Noise Technical Analysis (Attachment E) regarding minor altitude adjustments not reflected in the noise modeling.

elements in a scene and visual impacts tend to be relatively short. The short duration and low number of flights make it unlikely a historic property would experience a visual effect from the undertaking.

The FAA and NPS also considered the experience of tribal members who may be conducting ceremonies or practices that could involve looking toward the sky. The ATMP includes a provision for the NPS to establish temporary no-fly periods for special events, such as tribal ceremonies or other similar events, with a minimum of 15 days' notice to the operator. This represents an improvement over existing conditions where no such provision exists.

The ATMP limits the annual number of commercial air tours to 2,548 tours on routes that are substantially the same as the existing routes. On days with peak air tour activity (defined as a 90th percentile day), as many as 14 commercial air tours occurred. Therefore, visual effects to historic properties are expected to slightly decrease compared to impacts currently occurring because the number of authorized flights under the ATMP will be the same or less than the average number of flights from 2017-2019. As a result of provisions in the ATMP such as the increase in the minimum altitude of some flights and limits to the time-of-day flights can operate, the undertaking would not introduce visual elements that would alter the characteristics of any historic property that qualifies it for inclusion in the NRHP.

Finding of No Adverse Effect Criteria

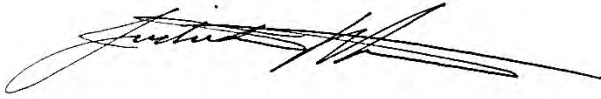
To support a Finding of No Adverse Effect, an undertaking must not meet any of the criteria set forth in the Advisory Council on Historic Preservation's Section 106 regulations at 36 CFR 800.5(a). This section demonstrates the undertaking does not meet those criteria. The undertaking would not have any physical impact on any property. The undertaking is located in the airspace above historic properties and would not result in any alteration or physical modifications to these resources. The undertaking would not remove any property from its location. The undertaking would not change the character of any property's use or any physical features in any historic property's setting. As discussed above, the undertaking would not introduce any auditory or visual elements that would diminish the integrity of the significant historical features of any historic properties in the APE. The undertaking would not cause any property to be neglected, sold, or transferred.

Proposed Finding and Request for Review and Concurrence

FAA and NPS approval of the undertaking would not alter the characteristics of any historic properties located within the APE as there would be minimal change in audible or visual effects from existing conditions. Based on the above analysis, the FAA proposes a finding of no adverse effect on historic properties. As you may be aware, the agencies are preparing this ATMP under court supervision. We request that you review the information and respond whether you concur with the proposed finding within thirty days of receiving this letter.

Should you have any questions regarding any of the above, please contact Judith Walker at 202-267-4185 or Judith.Walker@faa.gov and copy the ATMP team at ATMPTeam@dot.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Judith Walker', with a long horizontal flourish extending to the right.

Judith Walker
Federal Preservation Officer
Senior Environmental Policy Analyst
Environmental Policy Division (AEE-400)
Federal Aviation Administration

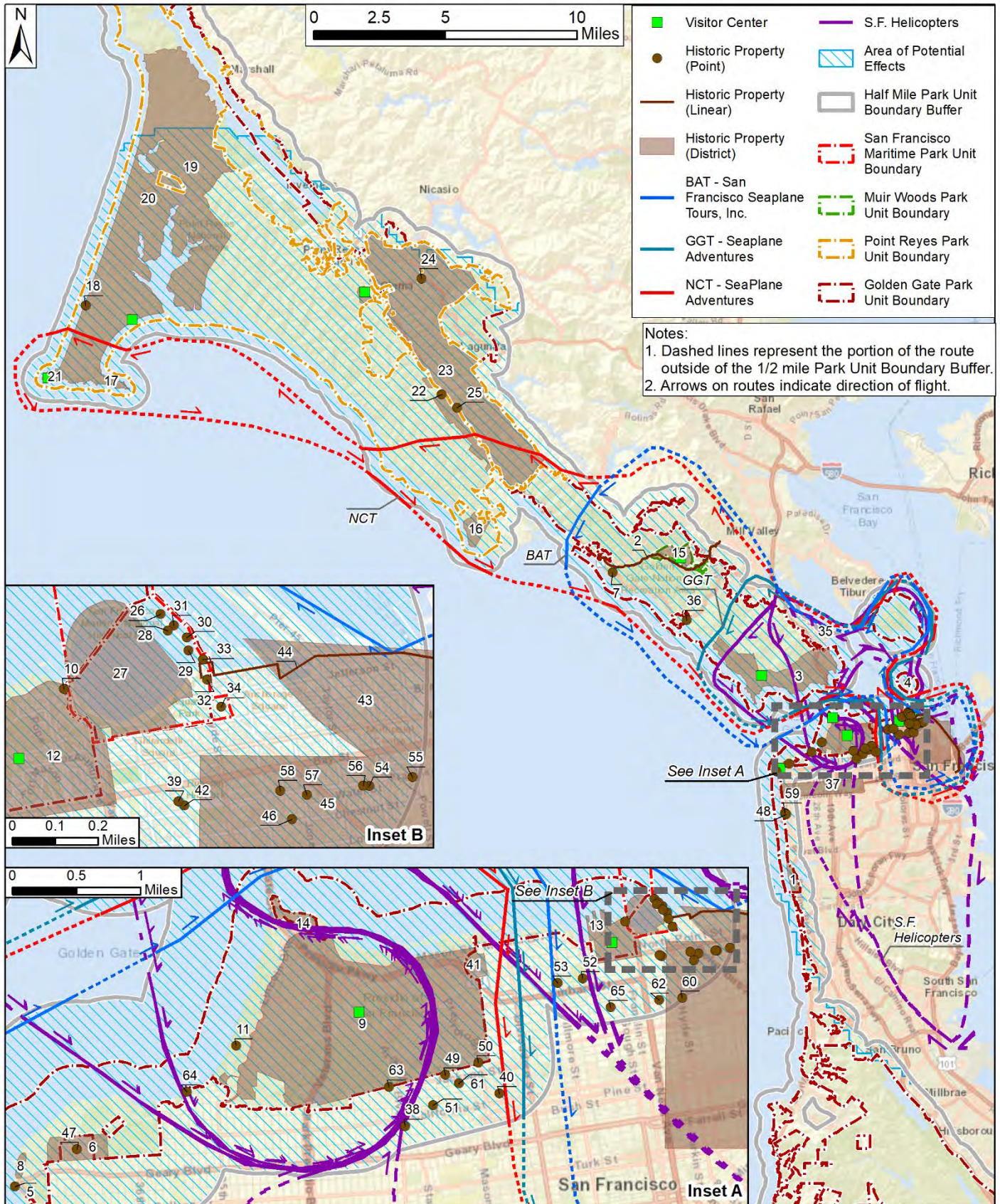
Attachments

- A. APE Map including proposed Commercial Air Tour Routes
- B. List of Historic Properties in the APE and Description of Historic Characteristics
- C. NWIC Data Request Results
- D. List of Consulting Parties
- E. Methodology of NEPA Technical Noise Analysis

ATTACHMENT A

**Area of Potential Effects Map
Including
Proposed Commercial Air Tour Routes**

Area of Potential Effects with Historic Properties for ATMP at Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historic Park, and Point Reyes National Seashore



ATTACHMENT B

List of Historic Properties in the APE and Description of Historic Characteristics

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Golden Gate National Recreation Area	Fort Funston	District	Eligible	Fort Funston is a former harbor defense instillation that is significant under Criterion A in the area of military history.	1
Golden Gate National Recreation Area	Muir Beach Archaeological Site	Site	Listed	The Muir Beach Archaeological Site is listed under Criterion D for its potential to yield information.	Not mapped
Golden Gate National Recreation Area	Steamship TENNESSEE Remains	Site	Listed	The Steamship TENNESSEE Remains are listed under Criterion A in the areas of commerce, transportation, and invention.	Not mapped
Golden Gate National Recreation Area	The Dipsea Trail	Site	Listed	The Dipsea Trail is listed under Criterion A for its association with the Dipsea Race, the oldest cross-country trail race in the U.S. that has influenced the development of other races and in America's interest in physical fitness.	2
Golden Gate National Recreation Area	Forts Baker, Barry, and Cronkhite	District	Listed	Forts Baker, Barry, and Cronkhite are listed under Criterion A in the area of military history for their association with early coastal defense.	3
Golden Gate National Recreation Area	Alcatraz	District	Listed	Alcatraz is listed under Criterion A in the areas of military history, social history, and maritime commerce. It is also listed under Criterion C for engineering.	4
Golden Gate National Recreation Area	Camera Obscura	Object	Listed	The Camera Obscura is listed under Criterion C as a rare example of the camera obscura apparatus in its original location.	5

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
Golden Gate National Recreation Area	Fort Miley Military Reservation	District	Listed	The Fort Miley Military Reservation is listed under Criterion A in the area of military history for its association with the defense of the strategic harbor of San Francisco.	6
Golden Gate National Recreation Area	Hill 640 Military Reservation	Site	Listed	The Hill 640 Military Reservation is listed under Criterion A for its association with military history.	7
Golden Gate National Recreation Area	KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site	Site	Listed	The KING PHILIP (ship) and REPORTER (schooner) Shipwreck Site is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	Not mapped
Golden Gate National Recreation Area	Point Lobos Archaeological Sites	District	Listed	The Point Lobos Archaeological Sites are listed under Criterion A in the area of science and Criterion D for their potential to yield information.	8
Golden Gate National Recreation Area	Presidio of San Francisco	District	Listed	The Presidio of San Francisco is the oldest Army installation operating in the American West and is listed under Criterion A in the areas of military history Hispanic history, and exploration/settlement; Criterion C for architecture; and Criterion D for information potential.	9
Golden Gate National Recreation Area	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System	Building	Listed	Pumping Station No. 2 San Francisco Fire Department Auxiliary Water Supply System represents innovative planning and innovative design of an “earthquake-proof” firefighting system. It is listed under Criterion A in the area of	10

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				community planning and Criterion C for engineering.	
Golden Gate National Recreation Area	Six-Inch Rifled Gun No. 9	Object	Listed	The Six-Inch Rifled Gun No. 9 is a rare surviving two six-inch breechloading rifle that survived the scrapping of coastal defense ordinance following World War II. It is listed under Criterion A in the area of military history.	11
Golden Gate National Recreation Area	Fort Mason Historic District	District	Listed	The Fort Mason Historic District is listed under Criterion A in the areas of military and transportation. It is also listed under Criterion C for architecture and landscape architecture.	12
Golden Gate National Recreation Area	San Francisco Port of Embarkation, US Army (NHL)	District	Listed	The San Francisco Port of Embarkation, US Army district is listed under Criterion A in the area of military history	13
Golden Gate National Recreation Area	Fort Point National Historic Site	Site	Listed	Fort Point National Historic Site is listed under Criterion A in the areas of military and maritime history and Criterion C for architecture.	14
Muir Woods National Monument	Muir Woods National Monument	District	Listed	Muir Woods National Monument is listed under Criterion A in the area of conservation for its association with the history of the American Conservation Movement and early conservation achievements in the Bay Area. It is also listed under Criterion C for architecture.	15
Point Reyes National Seashore	Drakes Bay Historic and Archaeological District (NHL)	District	Listed	The Drakes Bay Historic and Archaeological District is listed under Criterion A for its association with Sir Francis Drake's 1579 California landfall	Not mapped

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				and the 1595 shipwreck of the Manila galleon San Agustín within Drakes Bay. It is also listed under Criterion B for its association with Sir Francis Drake and Criterion D for its ability to yield information about these early contacts.	
Point Reyes National Seashore	Marconi—RCA Bolinas Transmitting Station	District	Listed	The Marconi-RCA Bolinas Transmitting Station is listed under Criterion A as one of four extant Marconi wireless stations in the continental U.S. from the interwar period. It is also listed under Criterion C for its Art Deco design.	16
Point Reyes National Seashore	Point Reyes Lifeboat Rescue Station, 1927	Building, Structure	Listed	The Point Reyes Lifeboat Rescue Station is listed under Criterion A in the areas of commerce, transportation, maritime history, and social history. It is also listed under Criterion C for architecture and engineering.	17
Point Reyes National Seashore	Point Reyes Naval Radio Compass Station	Building	Listed	The Point Reyes Naval Radio Compass Station is listed under Criterion A for its use as one of three radio compass stations that worked to fix the location of ships in the area. It is also listed under Criterion C for architecture.	18
Point Reyes National Seashore	Point Reyes Peninsula Dairy Ranches Historic District	District	Listed	The Point Reyes Peninsula Dairy Ranches Historic District is one of the earliest and largest collection of tenant dairy ranches in California and is listed under Criterion A in the areas of agriculture and commerce and Criterion C for architecture.	19
Point Reyes National Seashore	RCA Point Reyes Receiving Station	Building	Listed	The RCA Point Reyes Receiving Station is listed under Criterion A as a rare example	20

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				of a shortwave wireless station from the interwar period. It is also listed under Criterion C for its Art Deco design.	
Point Reyes National Seashore	Point Reyes Light Station	Building, Structure	Listed	The Point Reyes Light Station is listed under Criterion A in the area of commerce, transportation, and maritime history. It is also listed under Criterion C for architecture and engineering.	21
Point Reyes National Seashore	Olema Lime Kilns	Structure	Listed	The Olema Lime Kilns is listed under Criterion A in the area of industry representing a Gold Rush-triggered pioneer American effort to establish a lime-producing industry in Marin County.	22
Point Reyes National Seashore	Olema Valley Dairy Ranches Historic District	District	Listed	The Olema Valley Dairy Ranches Historic District is listed under Criterion A for its association with early dairy ranching and Criterion C for architecture.	23
Point Reyes National Seashore	Tocaloma Bridge	Structure	Listed	The Tocaloma Bridge is a rare example of a reinforced concrete through arch bridge in California and is listed under Criterion C for engineering.	24
Point Reyes National Seashore	Sarah Seaver Randall House	Building	Eligible	The Sarah Seaver Randall house is significant under Criterion A for its association with the dairy industry and Criterion C for architecture.	25
Point Reyes National Seashore	Point Reyes Peninsula Indigenous Archeological District	District	Eligible	The Point Reyes Peninsula Indigenous Archaeological District encompasses the entirety of Point Reyes National Seashore and is significant under Criterion D for its research potential regarding Point Reyes' indigenous history.	Not mapped

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
San Francisco Maritime National Historic Park	ALMA (Scow Schooner) (NHL)	Structure	Listed	The ALMA (Scow Schooner) is listed under Criterion A in the areas of commerce and transportation and Criterion C for architecture.	26
San Francisco Maritime National Historic Park	Aquatic Park Historic District (NHL)	District	Listed	The Aquatic Park Historic District is listed under Criterion A in the areas of art, military, and community planning and development. It is also listed under Criterion C for architecture.	27
San Francisco Maritime National Historic Park	BALCLUTHA (NHL)	Structure	Listed	The BALCLUTHA is listed under Criterion A in the areas of commerce and transportation.	28
San Francisco Maritime National Historic Park	C.A. THAYER (NHL)	Structure	Listed	The C.A. THAYER is listed under Criterion A in the areas of commerce and industry.	29
San Francisco Maritime National Historic Park	EUREKA (NHL)	Site	Listed	The EUREKA is listed under Criterion A in the areas of commerce and transportation and Criterion C for engineering.	30
San Francisco Maritime National Historic Park	HERCULES (tugboat) (NHL)	Structure	Listed	The HERCULES (tugboat) is listed under Criterion A in the areas of industry, commerce, and transportation and Criterion C for engineering.	31
San Francisco Maritime National Historic Park	LEWIS ARK (houseboat)	Structure	Listed	The LEWIS ARK (houseboat) is listed under Criterion C as an example of a type of maritime residential architecture.	32
San Francisco Maritime National Historic Park	Tubbs Cordage Company Office Building	Building	Listed	The Tubbs Cordage Company Office Building is listed under Criterion A in the areas of industry and commerce and Criterion C as an example of Victorian industrial architecture.	33
San Francisco Maritime National Historic Park	Haslett Warehouse	Building	Listed	The Haslett Warehouse is listed under Criterion A in the area of commerce and	34

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				Criterion C for its association with architect William S. Mooser, Jr.	
Marin County	Sausalito Central Business Historic District	District	Eligible	The Sausalito Central Business Historic District is a significant business district with good examples of Italianate commercial and utilitarian commercial architecture that exemplify the city's growth and change since 1868.	35
Marin County	Building at 200 Pacific Way, Muir Beach	Building	Eligible	The building at 200 Pacific Way is a 1915 residence that is significant under Criterion C for architecture.	36
San Francisco County	Golden Gate Park	District	Listed	Golden Gate Park is listed under Criterion A for recreation and social history as the first large urban space dedicated for outdoor enjoyment in the west and Criterion C for landscape architecture.	37
San Francisco County	St. John's Presbyterian Church	Building	Listed	The St. John's Presbyterian Church is listed under Criterion C as an example of Shingle style architecture.	38
San Francisco County	Sinton House	Building	Listed	The Sinton House is listed under Criterion B for its association with artist Eleanor W. Sinton and Criterion C for its association with architects John A. Porporato and William Wilson Wurster.	39
San Francisco County	Swedenborgian Church (NHL)	Building	Listed	The Swedenborgian Church is listed under Criterion C as an excellent example of the First Bay Tradition style of architecture.	40
San Francisco County	Palace of Fine Arts	District	Listed	The Palace of Fine Arts is listed under Criterion A as an exceptional example of conservation and for its association with the changing attitudes toward historic	41

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				preservation, architectural design, and urban development in the U.S.	
San Francisco County	Pioneer Woolen Mills and D. Ghirardelli Company	District	Listed	The Pioneer Woolen Mills and D. Ghirardelli Company is listed under Criterion A in the areas of commerce, industry, art, and conservation. It is also listed under Criterion C in the areas of architecture and landscape architecture.	42
San Francisco County	Port of San Francisco Embarcadero Historic District	District	Listed	The Port of San Francisco Embarcadero Historic District is listed under Criterion A in the areas of government, commerce, transportation, and labor; Criterion B: Significant Person for its association with Harry Bridges, a labor leader; and Criterion C in the areas of Architecture and Community Planning and Development.	43
San Francisco County	Old Seawall	Structure	Eligible	The Old Seawall is individually significant under Criterion A for its association with waterfront development and Criterion C in the area of engineering. It is also contributing to the listed Port of San Francisco Embarcadero Historic District and the listed Central Embarcadero Piers Historic District.	44
San Francisco County	San Francisco Cable Cars (NHL)	District	Listed	The San Francisco Cable Cars are listed under Criterion A for its association with the transportation history of San Francisco.	45
San Francisco County	San Francisco Art Institute	Building	Listed	The San Francisco Art Institute is listed under Criterion A for its role in the development of American art and its	46

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
				contributions to art education in the United States.	
San Francisco County	San Francisco Veterans Affairs Medical Center	District	Listed	The San Francisco Veterans Affairs Medical Center is listed under Criterion A as the location of one of the early standardized VA hospitals. It is also listed under Criterion C as an early example of a federal building designed with seismic-resistant building technologies and for the design of its Mayan Art Deco ornamentation.	47
San Francisco County	Moss Flats Building	Building	Listed	The Moss Flats Building is listed under Criterion A for its association with the early development of the ocean frontage as a beach and health resort. It is also listed under Criterion C as an excellent example of the Late Gothic Revival style.	48
San Francisco County	Roos House	Building	Listed	The Roos house is listed under Criterion C as a work of master architect Bernard Maybeck that embodies the distinctive characteristics of Tudor Revival style with Gothic decorative details.	49
San Francisco County	Julian Waybur House	Building	Listed	The Julian Waybur House is listed under Criterion C as a work of master architect Ernest Coxhead that combines the American Shingle style with experimental uses of European Revival styles.	50
San Francisco County	Koshland House	Building	Listed	The Koshland House is listed under Criterion A for its association with performing arts in San Francisco and Criterion C as an excellent example of the Classical Revival style.	51

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
San Francisco County	Moscone Clubhouse	Building	Eligible	The Moscone Clubhouse is significant under Criterion A for its association with the recreational history of San Francisco. It is also significant under Criterion C for architecture.	52
San Francisco County	Anchor Building	Building	Eligible	The Anchor Building is significant under Criterion C for architecture.	53
San Francisco County	Building at 521 Francisco Street, San Francisco	Building	Eligible	The building at 521 Francisco Street is significant under Criterion C for architecture.	54
San Francisco County	North Beach Place Housing Project	Building	Eligible	The North Beach Place Housing Project building is significant under Criterion C for architecture.	55
San Francisco County	Building at 547 Francisco Street, San Francisco	Building	Eligible	The building at 547 Francisco Street is significant under Criterion C for architecture.	56
San Francisco County	Building at 679 Francisco Street, San Francisco	Building	Eligible	The building at 679 Francisco Street is significant under Criterion C for architecture.	57
San Francisco County	Building at 750 Francisco Street, San Francisco	Building	Eligible	The building at 750 Francisco Street is significant under Criterion C for architecture.	58
San Francisco County	Building at 1672 Great Highway, San Francisco	Building	Eligible	The building at 1672 Great Highway is significant under Criterion C for architecture.	59
San Francisco County	Search Light Market	Building	Eligible	The Search Light Market building is significant under Criterion C for architecture.	60
San Francisco County	Laurel Street Apartments	Building	Eligible	The Laurel Street Apartments are significant under Criterion C for architecture.	61

Park Location (if located inside Park boundary) or County Name	Property Name	Property Type	Eligibility Status	Significant Characteristics	Map Label Number
San Francisco County	Antica Building	Building	Eligible	The Antica Building is significant under Criterion C for architecture.	62
San Francisco County	Presidio Golf Club Clubhouse	Building	Eligible	The Presidio Golf Club Clubhouse building is eligible under Criterion A for its association with the military and recreational history of San Francisco and Criterion C for its Craftsman-style architecture.	63
San Francisco County	Jerome White House	Building	Appears Eligible	The Jerome White House is potentially significant under Criterion C for architecture.	64
San Francisco County	Building at 1800 Union Street	Building	Eligible	The building at 1800 Union Street is significant under Criterion C for architecture.	65

ATTACHMENT C
NWIC Data Request Results

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE

HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO

SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
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nwwic@sonoma.edu
<http://nwwic.sonoma.edu>

April 11, 2022

NWIC File No.: 21-1190 GOGA APE

Kathering Giraldo
Volpe National Transportation Systems Center
U.S. Department of Transportation
55 Broadway
Cambridge, MA 02142

Re: Record search results for the proposed Air Tour Management Program (Federal Aviation Administration) Golden Gate National Recreation Area (GOGA), GOGA APE.

Dear Kathering Giraldo:

Per your request received by our office on 25th of January, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin, San Francisco, and San Mateo Counties. An Area of Potential Effects (APE) map was provided depicting the GOGA APE project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the development of Air Tour Management Plans (ATMPs) for San Francisco Area National Parks. The Federal Aviation Administration (FAA) and the National Park Service (NPS) (collectively, the agencies) are developing Air Tour Management Plans (ATMPs) for 24 parks including Golden Gate Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore, and Muir Woods National Monument. ATMPs apply to commercial air tours flown at or below 5,000 feet above ground level in and within ½ mile of a park boundary. The agencies have determined that development of an ATMP qualifies as an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA). There will be no ground disturbance, construction or demolition associated with this undertaking. Air tours have been operating at all five parks for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authorizations (IOA) as provided in National Parks Air Tour Management Act of 2000. The agencies are creating ATMPs to replace IOA and, to the extent possible, will limit the number of annual air tour operations to the average flown between 2017 and 2019. At this time we anticipate little or no increase in air tour operations.

Review of this information indicates that there has been 603 cultural resource studies that cover approximately 50% of the GOGA APE project area. See attached Report List. This GOGA APE project area contains 141 recorded archaeological resources, including 63 recorded Native American resources including, habitation sites, isolated finds, lithic scatters, burials, rock shelters or caves, hearth/pits, bedrock milling features, architectural features, and 91 historic-period archaeological resources, resources including, privies, dumps, trash scatters, dams,

ships/barges, machinery, water conveyance, foundation structure pads, roads, trails, walls, and fences, as well as multi-component resources containing both. See enclosed Resource List.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists 60 recorded buildings or structures within the proposed GOGA APE project area in Marin County, 2 recorded buildings or structures within the proposed GOGA APE project area in San Mateo County, and numerous recorded buildings, structures and districts within the proposed GOGA APE project area in San Francisco County. See attached OHP BERD Lists and Status Code List.

In addition to these inventories, the NWIC base maps show 257 recorded buildings or structures, and 21 Historic Districts. Local Inventories, including San Francisco Landmarks, indicate 28 San Francisco Article 10 Landmarks, 3 San Francisco National Register District Boundaries, and 1 San Francisco Article 10 District Boundary within the GOGA APE project area. See attached Resource Lists.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of either the Coast Miwok language, part of the California Penutian language family, or the Ramaytush, part of the Costanoan/Ohlone language family (Kelly 1978:414-415; Levy 1978: 485). There are Native American resources in the proposed GOGA APE project area referenced in the ethnographic literature [Nelson Shellmounds (Nelson 1909)].

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin, San Francisco, and San Mateo Counties have been found in areas marginal to the Pacific Ocean and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The GOGA APE project area contains each of these environmental settings and features. The GOGA APE project starts at its northern end in Marin County near the southern shore of Tomales Bay, goes over portions of the towns and Cities of Point Reyes Station, Inverness, Lagunitas, Forest Knolls, Bolinas, Mill Valley, Tamalpais – Homestead Valley, Marin City, Sausalito, then over the Golden Gate Area and portions of the City of San Francisco including the Presidio, and along the Coast over portions of Golden Gate Park, and the Cities of Daly City, Broadmoor, Pacifica, South San Francisco, San Bruno, Pacifica, Milbrae, and ends in its southern location in San Mateo County in the City of San Bruno near the northeastern shore of San Andreas Lake in Junipero Sierra County Park. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed GOGA APE project area.

Review of historical literature and maps indicated historic-period activity within the GOGA APE project area. Early Marin, San Francisco and San Mateo County maps indicated roads, buildings, structures, bridges, watertanks, lighthouses. etc. within the project area (1897 Tamalpais, 1914 Petaluma, 1895 San Francisco, 1896 San Mateo USGS 15-minute topographic quadrangles). With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed GOGA APE project area.

The 1954 Point Reyes, 1942 Petaluma, 1942 San Francisco, 1939 San Mateo USGS 15-minute and the 1954 San Rafael USGS 7.5-minute topographic quadrangles depict numerous buildings and structures within the GOGA APE project area. If present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There are 154 recorded archaeological resources in the proposed GOGA APE project area. Six of these archaeological resources, P-21-000311, P-21-000452, P-21-000493, P-38-000005, P-38-000021, and P-38-000099 are listed in the OHP ADOE dated April 5, 2012. In addition, there is a high potential for additional Native American archaeological resources and a high potential for additional historic-period archaeological resources to be within the project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these archaeological resources, as well as those unrecorded archaeological resources that may exist.

2) Our research indicates that there are 257 recorded buildings and structures, 21 Historic Districts, 28 San Francisco Article 10 Landmarks, 3 San Francisco National District Boundaries, and 1 San Francisco Article 10 District Boundary within the GOGA APE project area. Many of these resources, and many more are included in the OHP BERD for Marin, San Francisco and San Mateo Counties. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings, structures, and Districts:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

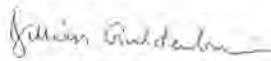
Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via

this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,



Jillian Guldenbrein
Researcher

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SONOMA
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Northwest Information Center
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Tel: 707.588.8455
nwtic@sonoma.edu
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April 6, 2022

NWIC File No.: 21-1190 Alcatraz

Kathering Giraldo
Volpe National Transportation Systems Center
U.S. Department of Transportation
55 Broadway
Cambridge, MA 02142

Re: Record search results for the proposed Air Tour Management Program (Federal Aviation Administration) Golden Gate National Recreation Area (GOGA), Alcatraz APE.

Dear Kathering Giraldo:

Per your request received by our office on 25th of January, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Francisco County. An Area of Potential Effects (APE) map was provided depicting the Alcatraz APE project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the development of Air Tour Management Plans (ATMPs) for San Francisco Area National Parks. The Federal Aviation Administration (FAA) and the National Park Service (NPS) (collectively, the agencies) are developing Air Tour Management Plans (ATMPs) for 24 parks including Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore, and Muir Woods National Monument. ATMPs apply to commercial air tours flown at or below 5,000 feet above ground level in and within ½ mile of a park boundary. The agencies have determined that development of an ATMP qualifies as an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA). There will be no ground disturbance, construction or demolition associated with this undertaking. Air tours have been operating at all five parks for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authorizations (IOA) as provided in National Parks Air Tour Management Act of 2000. The agencies are creating ATMPs to replace IOA and, to the extent possible, will limit the number of annual air tour operations to the average flown between 2017 and 2019. At this time we anticipate little or no increase in air tour operations.

Review of this information indicates that there have been ten cultural resource studies that in total, cover approximately 30% of the Alcatraz APE project area. See attached Report List. This Alcatraz APE project area contains one recorded historic-period multi-component cultural resource that includes an archaeological element, and a built environment element, P-38-000045,

Alcatraz, including an Historic District with buildings and structures. The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, also lists Alcatraz as a recorded District, OTIS # 409254 with a status code of 1S, meaning this resource is Individually listed in the National Register by the Keeper and also listed in the California Register.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Ramytush language, part of the Costanoan/Ohlone language family (Levy 1978:485). There are no Native American resources in or adjacent to the proposed Alcatraz APE project area referenced in the ethnographic literature (Levy 1976, Milliken 1995, Nelson 1909).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Francisco County have been found in areas marginal to the San Francisco Bay, near intermittent and perennial fresh watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Alcatraz APE project area is located in San Francisco Bay within the Golden Gate National Recreation Area, Alcatraz Island is located approximately 1.2 miles north of the mainland of San Francisco Peninsula. Aerial maps indicate a rocky island with areas of buildings, asphalt, roads, and scattered trees and vegetation. Given the similarity of these environmental factors, there is a moderate potential for unrecorded Native American resources to be within the proposed Alcatraz APE project area.

Review of historical literature and maps indicated historic-period activity within the Alcatraz APE project area. Early San Francisco area maps indicate buildings and Alcatraz Island Light on Alcatraz [1895]. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Alcatraz APE project area.

The 1942 San Francisco USGS 15-minute topographic quadrangle depicts several buildings and structures within the Alcatraz APE project area. If present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There is one recorded archaeological resource in the proposed Alcatraz APE project area, P-38-000045, Alcatraz. In addition, there is a moderate potential for Native American archaeological resources and a high potential for additional historic-period archaeological resources to be within the project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to this archaeological resource, as well as those unrecorded archaeological resources that may exist.

2) Our research indicates that there is one recorded multi-component resource, Alcatraz, OTIS # 409254, included in the OHP BERD within the Alcatraz APE project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to the buildings and structures of this Historic District:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered **during construction**, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,



Jillian Guldenbrein
Researcher

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April 6, 2022

NWIC File No.: 21-1190 Angel Island

Kathering Giraldo
Volpe National Transportation Systems Center
U.S. Department of Transportation
55 Broadway
Cambridge, MA 02142

Re: Record search results for the proposed Air Tour Management Program (Federal Aviation Administration) Golden Gate National Recreation Area (GOGA), Angel Island APE.

Dear Kathering Giraldo:

Per your request received by our office on 25th of January, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin County. An Area of Potential Effects (APE) map was provided depicting the Angel Island project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the development of Air Tour Management Plans (ATMPs) for San Francisco Area National Parks. The Federal Aviation Administration (FAA) and the National Park Service (NPS) (collectively, the agencies) are developing Air Tour Management Plans (ATMPs) for 24 parks including Golden Gate Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore, and Muir Woods National Monument. ATMPs apply to commercial air tours flown at or below 5,000 feet above ground level in and within ½ mile of a park boundary. The agencies have determined that development of an ATMP qualifies as an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA). There will be no ground disturbance, construction or demolition associated with this undertaking. Air tours have been operating at all five parks for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authorizations (IOA) as provided in National Parks Air Tour Management Act of 2000. The agencies are creating ATMPs to replace IOA and, to the extent possible, will limit the number of annual air tour operations to the average flown between 2017 and 2019. At this time we anticipate little or no increase in air tour operations.

Review of this information indicates that there has been seventy-two (72) cultural resource studies that cover approximately 50% of the Angel Island APE project area. See attached report listing. This Angel Island APE project area contains forty-one (41) recorded archaeological resources; including eleven (11) Native American resources, consisting of mostly multi-component sites including lithic scatters, habitation sites, bedrock milling stations, burials and

isolated finds, and thirty (30) historic-period archaeological resources, consisting of standing structures, foundations, wharfs and trash scatters. See enclosed resource list.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists 23 recorded buildings or structures within the proposed Angel Island APE project area; including 22 on Angel Island, and 1 on the Mainland Marin County. See enclosed portion of OHP BERD Resource List dated September 14, 2021. Associated Status Codes include; **1S**, meaning this resource is Individually listed in the National Register (NR) by the Keeper. Listed in the California Register (CR). **1D**, meaning this resource is a Contributor to a multi-component resource like a district listed in the NR by the Keeper. Listed in the CR. **6X**, meaning this resource has been Determined ineligible for NR by the SHRC or the Keeper and **7R**, meaning the resource was Identified in Reconnaissance Level Survey or in an Area of Potential Effect (APE): Not evaluated. See enclosed California Historical Resource Status Codes Listing.

In addition to these inventories, the NWIC base maps show eighty-five (85) recorded buildings or structures within the proposed Angel Island APE project area, and three recorded Historic Districts, including P-21-001099, Angel Island District with 23 elements that include Military Property and Government Buildings, also known as P-38-005505, that crosses county lines, and P-21-003019 Camp Reynolds District with 8 elements. See attached Resource List.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of either the Coast Miwok language, part of the California Penutian language family, or the Ramaytush, part of the Costanoan/Ohlone language family (Kelly 1978:414-415; Levy 1978: 485). There are Native American resources in the proposed Angel Island APE project area referenced in the ethnographic literature [Nelson Shellmounds (Nelson 1909)].

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the San Francisco Bay shore and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Angel Island APE project area is located in the San Francisco Bay approximately 0.6 miles east of Point Tiburon and Bluff Point on the Marin County mainland. The project area includes Raccoon Strait and a portion of Belvedere Cove, Keil Cove, Ayala Cove. Aerial maps indicate an island surrounded by the San Francisco Bay, with densely and sparsely wooded areas, areas of chaparral, and low grasses. The project area also includes areas with roads, trails, buildings, wharves/docks, and asphalt. Given the similarity of these environmental factors and the archaeological sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Angel Island APE project area.

Review of historical literature and maps indicated historic-period activity within the Angel Island project area. Early Marin County maps indicate the project area included roads and several buildings (1895, 1899 San Francisco USGS 15-minute topographic quadrangle). With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Angel Island APE project area.

The 1942 San Francisco USGS 15-minute topographic quadrangle depicts several buildings or structures within the Angel Island APE project area. If present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There are forty-one (41) recorded archaeological resources in the proposed Angel Island APE project area. In addition, there is a high potential for Native American archaeological resources and a high potential for additional historic-period archaeological resources to be within the project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these archaeological resources, as well as those unrecorded archaeological resources that may exist.

2) Our research indicates that there are eighty-five (85) recorded buildings or structures within the proposed Angel Island APE project area, and three recorded Historic Districts, including P-21-001099, Angel Island District, also known as P-38-005505, as it crosses county lines, and P-21-003019 Camp Reynolds District. Twenty-three (23) of these buildings and structures are included in the OHP BERD within the Angel Island APE project area. See attached Resource listing. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings and structures:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local

agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,



Jillian Guldenbrein
Researcher

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<http://nwwic.sonoma.edu>

April 7, 2022

NWIC File No.: 21-1190 Muir Woods APE

Kathering Giraldo
Volpe National Transportation Systems Center
U.S. Department of Transportation
55 Broadway
Cambridge, MA 02142

Re: Record search results for the proposed Air Tour Management Program (Federal Aviation Administration) Golden Gate National Recreation Area (GOGA), Muir Woods APE.

Dear Kathering Giraldo:

Per your request received by our office on 25th of January, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin County. An Area of Potential Effects (APE) map was provided depicting the Muir Woods APE project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the development of Air Tour Management Plans (ATMPs) for San Francisco Area National Parks. The Federal Aviation Administration (FAA) and the National Park Service (NPS) (collectively, the agencies) are developing Air Tour Management Plans (ATMPs) for 24 parks including Golden Gate Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore, and Muir Woods National Monument. ATMPs apply to commercial air tours flown at or below 5,000 feet above ground level in and within ½ mile of a park boundary. The agencies have determined that development of an ATMP qualifies as an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA). There will be no ground disturbance, construction or demolition associated with this undertaking. Air tours have been operating at all five parks for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authorizations (IOA) as provided in National Parks Air Tour Management Act of 2000. The agencies are creating ATMPs to replace IOA and, to the extent possible, will limit the number of annual air tour operations to the average flown between 2017 and 2019. At this time we anticipate little or no increase in air tour operations.

Review of this information indicates that there has been twenty-one (21) cultural resource studies that in total cover approximately 70% of the Muir Woods APE project area. See attached report list. This Muir Woods APE project area contains one recorded Native American archaeological resource, P-12-000496, including a lithic scatter and habitation site, and thirteen historic-period archaeological resources, including; trails, refuse scatters, a water conveyance,

foundations, and standing structures. See enclosed resource list. One of the historic-period archaeological resources, P-21-000493, the Dipsea Trail/Panoramic Highway, is listed on the California Office of Historic Preservation's Archaeological Determinations of Eligibility (OHP ADOE) List dated April 5, 2012 with Status Codes 1S, meaning this resource is Individually listed in the National Register (NR) by the Keeper. Listed in the California Register (CR), and 3S, meaning appears eligible for the NR individually through survey evaluation. See attached OHP ADOE list and Status Code List.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists seven recorded buildings or structures within the proposed Muir Woods APE project area, including one District, P-21-003020, Muir Woods National Monument. These OHP BERD listed resources include Status Codes: two with 1S, meaning these resources are Individually listed in the National Register (NR) by the Keeper and Listed in the California Register (CR), 5 with 1D, meaning these resources are Contributors to a multi-component resource like a district listed in the NR by the Keeper and Listed in the CR, one with 3S, meaning this resource appears eligible for the NR individually through survey evaluation, and one with 7R, meaning this resource was Identified in Reconnaissance Level Survey or in an Area of Potential Effect (APE): Not evaluated. See attached OHP BERD for Marin County dated September 14, 2021, and Status Code List. In addition to these inventories, the NWIC base maps show six recorded buildings or structures within the proposed Muir Woods APE project area. See attached resource list.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Coast Miwok language, part of the California Penutian language family (Kelly 1978: 414-415). There are no Native American resources in or adjacent to the proposed Muir Woods APE project area referenced in the ethnographic literature (Barrett 1908, Nelson 1909, Kroeber 1932).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the Pacific Ocean and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Muir Woods APE project area is located in Marin County in the Muir Woods Area approximately one mile east of the coast, four miles east of the town of Bolinas. The Muir Woods APE includes portions of the town of Mill Valley, and Tamalpais-Homestead Valley. The project area is bisected by Redwood Canyon and Creek at its confluence with Frank Valley, and includes portions of Kent Canyon and Creek, Lone Tree, Fern, Laguna, Spike Buck, Rattlesnake, and Bootjack Creeks, and springs. Aerial maps indicate a heavily wooded project area with areas of dense chaparral and low grasses, and cleared roadways, and several buildings. Given the similarity of these environmental factors and the archaeological sensitivity of the area, there is a moderate potential for unrecorded Native American resources to be within the proposed Muir Woods APE project area.

Review of historical literature and maps indicated historic-period activity within the Muir Woods APE project area. Early Marin County maps indicate the project area included roads and several buildings (1897 Tamalpais USGS 15-minute topographic quadrangle). With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Muir Woods APE project area.

The 1954 San Rafael USGS 7.5-minute topographic quadrangle depicts several buildings and structures within the Muir Woods APE project area. If present, and if unrecorded, these

buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There are fourteen (14) recorded archaeological resources in the proposed Muir Woods APE project area. One of these archaeological resources, P-21-000493 is listed in the OHP ADOE dated April 5, 2012. In addition, there is a moderate potential for Native American archaeological resources and a high potential for additional historic-period archaeological resources to be within the project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these archaeological resources, as well as those unrecorded archaeological resources that may exist.

2) Our research indicates that there are seven (7) buildings, structures and one District within the Muir Woods APE project area that are included in the OHP BERD dated September 14, 2021. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings and structures, and District:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California

Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,



Jillian Guldenbrein
Researcher

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE

HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO

SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwcic@sonoma.edu
<http://nwcic.sonoma.edu>

April 7, 2022

NWIC File No.: 21-1190 PORE APE

Kathering Giraldo
Volpe National Transportation Systems Center
U.S. Department of Transportation
55 Broadway
Cambridge, MA 02142

Re: Record search results for the proposed Air Tour Management Program (Federal Aviation Administration) Golden Gate National Recreation Area (GOGA), Point Reyes APE (PORE APE)

Dear Kathering Giraldo:

Per your request received by our office on 25th of January, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin County. An Area of Potential Effects (APE) map was provided depicting the Point Reyes APE project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project entails the development of Air Tour Management Plans (ATMPs) for San Francisco Area National Parks. The Federal Aviation Administration (FAA) and the National Park Service (NPS) (collectively, the agencies) are developing Air Tour Management Plans (ATMPs) for 24 parks including Golden Gate Recreation Area, San Francisco Maritime National Historical Park, Point Reyes National Seashore, and Muir Woods National Monument. ATMPs apply to commercial air tours flown at or below 5,000 feet above ground level in and within ½ mile of a park boundary. The agencies have determined that development of an ATMP qualifies as an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA). There will be no ground disturbance, construction or demolition associated with this undertaking. Air tours have been operating at all five parks for over 20 years. Since 2005, these air tours have been conducted pursuant to interim operating authorizations (IOA) as provided in National Parks Air Tour Management Act of 2000. The agencies are creating ATMPs to replace IOA and, to the extent possible, will limit the number of annual air tour operations to the average flown between 2017 and 2019. At this time we anticipate little or no increase in air tour operations.

Review of this information indicates that there has been 114 cultural resource studies that cover approximately 70% of the Point Reyes APE project area. See attached Report List. This Point Reyes APE project area contains sixty-nine (69) recorded Native American archaeological resources including, habitation sites, isolated finds, lithic scatters, burials, rock shelters or caves, hearth/pits, bedrock milling feature, architectural features, and ceramic scatters. In addition, the

Point Reyes APE project area contains thirty-six (36) recorded historic-period archaeological resources including, privies, dumps, trash scatters, dams, ships/barges, machinery, water conveyance, foundation structure pads, roads, trails, walls, and fences. See attached Resource List. One of the multi-component resources containing both Native American and historic-period archaeological resources, P-21-000246, is listed on the California Office of Historic Preservation's Archaeological Determinations of Eligibility (OHP ADOE) List dated April 5, 2012 with a Status Code of 2S2, meaning this resource is individually determined eligible for the National Register (NR) by consensus through Section 106 process, and is listed in the California Register (CR). See attached OHP ADOE list and Status Code List.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists numerous recorded buildings, structures and Districts within and possibly adjacent to the proposed Point Reyes APE project area. See attached portion of OHP BERD for Marin County dated September 15, 2021, and Status Code List. In addition to these inventories, the NWIC base maps show 109 recorded buildings or structures within the proposed Point Reyes APE project area, as well as three record Historic Districts; P-21-001912, Point Reyes Light Station, P-21-002883, American Telephone and Telegraph Point Reyes Receiving Station, and P-21-002884, Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station. See attached Resource List.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Coast Miwok language, part of the California Penutian language family (Kelly 1978: 414-415). There are Native American resources adjacent to the proposed Point Reyes APE project area referenced in the ethnographic literature [old village sites in vicinity, Olemao'ke along Olema Creek as above and an unnamed village NE of Bolinas Bay, outside of project area (Barrett 1908, Nelson 1909, Kroeber 1932)].

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the Pacific Ocean and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Point Reyes APE project area is located along the coastline, and inland areas including a portion of the western shore of Tomales Bay, west to Point Reyes, and a portion of the town of Inverness at the north end and a portion of the town of Bolinas at the southern end. Aerial maps indicate sand dune areas, bays, inlets, rivers, creeks, coastal mountain range, etc. Given the similarity of these environmental factors and the archaeological sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Point Reyes APE project area.

Review of historical literature and maps indicated historic-period activity within the Point Reyes APE project area. Early Marin County Maps and Coastal Survey Maps indicated a lighthouse, roads, buildings, including schools, bridges, windmills, coast guard station, a radio station, and several ranches (1897 Tamalpais and 1916 Point Reyes USGS 15-minute topographic quadrangles, 1860 Drakes Bay Coastal Survey Map). With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Point Reyes APE project area.

The 1954 Point Reyes USGS 15-minute topographic quadrangle depicts numerous buildings and structures within the Point Reyes APE project area. If present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There are 117 recorded archaeological resources in the proposed Point Reyes APE project area. One of these archaeological resources, P-21-000246 is listed in the OHP ADOE dated April 5, 2012. There is a high potential for additional Native American archaeological resources and a high potential for historic-period archaeological resources to be within the project area. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these archaeological resources, as well as those unrecorded archaeological resources that may exist.

2) Our research indicates that there are 109 recorded buildings and structures within the proposed Point Reyes APE project area, and three recorded Historic Districts, including P-21-001912, Point Reyes Light Station, P-21-002883, American Telephone and Telegraph Point Reyes Receiving Station, and P-21-002884, Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station. In addition, there are numerous buildings and structures within the Point Reyes APE project area that are included in the OHP BERD dated September 15, 2021. Therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings, structures, and Districts:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered **during construction**, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

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Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,



Jillian Guldenbrein
Researcher

ATTACHMENT D

List of Additional Consulting Parties Invited to Participate in Section 106 Consultation

Angel Island State Park
City of San Francisco
Federated Indians of Graton Rancheria, California
Marin County
McClelland, John and Teri (S.F. Helicopter Tours)
Mount Tamalpais State Park
National Trust for Historic Preservation
San Francisco Seaplane Tours, Inc. (Seaplane Adventures)

ATTACHMENT E

Summary of Noise Technical Analysis from NEPA Review

There are numerous ways to measure the potential impacts from commercial air tours on the acoustic environment of a park, including intensity, duration, and spatial footprint of the noise. The metrics and acoustical terminology used for the ATMPs are shown in the table below.

Metric	Relevance and citation
Day-night average sound level, L_{dn} (or DNL)	<p>The logarithmic average of sound levels, in dBA, over a 24-hour day, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time.</p> <p>Note: Both $L_{Aeq, 12hr}$ and L_{dn} characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12hr}$ and 24-hours for L_{dn}) <p>If there are no nighttime events, then $L_{Aeq, 12hr}$ is arithmetically three dBA higher than L_{dn}.</p> <p>The FAA's indicators of significant impacts are for an action that would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe¹⁰.</p>
Equivalent sound level, $L_{Aeq, 12 hr}$	<p>The logarithmic average of commercial air tour sound levels, in dBA, over a 12-hour day. The selected 12-hour period is 7 a.m. to 7 p.m. to represent typical daytime commercial air tour operating hours.</p> <p>Note: Both $L_{Aeq, 12hr}$ and L_{dn} characterize:</p> <ul style="list-style-type: none"> Increases in both the loudness and duration of noise events The number of noise events during specific time period (12 hours for $L_{Aeq, 12hr}$ and 24-hours for L_{dn}) <p>However, DNL takes into account the increased sensitivity to noise at night by including a ten dB penalty between 10 p.m. and 7 a.m. local time. If there are no nighttime events, $L_{Aeq, 12hr}$ will be three dB higher than DNL.</p>

¹⁰ FAA Order 1050.1F, Exhibit 4-1

Time Above 35 dBA ¹¹	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 35 dBA)</p> <p>In quiet settings, outdoor sound levels exceeding 35 dB degrade experience in outdoor performance venues (ANSI 12.9-2007, Quantities And Procedures For Description And Measurement Of Environmental Sound – Part 5: Sound Level Descriptors For Determination Of Compatible Land Use); blood pressure increases in sleeping humans (Haralabidis et al., 2008); maximum background noise level inside classrooms (ANSI/ASA S12.60/Part 1-2010, Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools).</p>
Time Above 52 dBA	<p>The amount of time (in minutes) that aircraft sound levels are above a given threshold (i.e., 52 dBA)</p> <p>This metric represents the level at which one may reasonably expect interference with Park interpretive programs. At this background sound level (52 dB), normal voice communication at five meters (two people five meters apart), or a raised voice to an audience at ten meters would result in 95% sentence intelligibility.¹²</p>
Maximum sound level, L _{max}	<p>The loudest sound level, in dBA, generated by the loudest event; it is event-based and is independent of the number of operations. L_{max} does not provide any context of frequency, duration, or timing of exposure.</p>

For aviation noise analyses under the National Environmental Policy Act (NEPA), the FAA determines the cumulative noise energy exposure of individuals resulting from aviation activities in terms of an Average Annual Day (AAD). However, because ATMP operations in the Parks occur at low annual operational levels and are highly seasonal in nature it was determined that a peak day representation of the operations would more adequately allow for disclosure of any potential impacts. A peak day has therefore been used as a conservative representation of assessment of AAD conditions required by FAA policy.

The 90th percentile day was identified for representation of a peak day and derived from the busiest year of commercial air tour activity from 2017-2019, based on the total number of commercial air tour operations and total flight miles over the Parks. It was then further assessed for the type of aircraft and route flown to determine if it is a reasonable representation of the commercial air tour activity at the Parks.

For the Parks, the 90th percentile day was identified as the following:

¹¹ dBA (A-weighted decibels): Sound is measured on a logarithmic scale relative to the reference sound pressure for atmospheric sources, 20 µPa. The logarithmic scale is a useful way to express the wide range of sound pressures perceived by the human ear. Sound levels are reported in units of decibels (dB) (ANSI S1.1-1994, American National Standard Acoustical Terminology). A-weighting is applied to sound levels in order to account for the sensitivity of the human ear (ANSI S1.42-2001, Design Response of Weighting Networks for Acoustical Measurements). To approximate human hearing sensitivity, A-weighting discounts sounds below 1 kHz and above 6 kHz.

¹² Environmental Protection Agency. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

- Two flights on the S.F. Helicopter Tours V1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours VG1 S-C route using a BHT-407-407 aircraft
- One flight on the S.F. Helicopter Tours V2 C-C route using a BHT-407-407 aircraft
- Two flights on the S.F. Helicopter Tours VG2 C-C route using a BHT-407-407 aircraft
- One flight on the Seaplane Adventures BAT route using a DHC-2-MKI aircraft
- Six flights on the Seaplane Adventures GGT route using a DHC-2-MKI aircraft
- One flight on the Seaplane Adventures NCT route using a DHC-2-MKI aircraft

Noise contours for the following acoustic indicators were developed using the Federal Aviation Administration's Aviation Environmental Design Tool (AEDT) version 3d and are shown below. A noise contour presents a graphical illustration or "footprint" of the area potentially affected by the noise.

- Time above 35 dBA (minutes) – see Figure 1
 - Note: The utility of this metric may be limited in urban environments such as certain areas of Golden Gate National Recreation Area and surrounding urban areas where the ambient sound level is generally greater than 45-50 dBA.
- Time above 52 dBA (minutes) – see Figure 2
- Equivalent sound level, LAeq, 12hr – see Figure 3
 - Note: Contours are not presented for Ldn (or DNL) as it is arithmetically three dBA lower than LAeq, 12hr if there are no nighttime events, which is the case for the ATMP modeled at Golden Gate National Recreation Area.
- Maximum sound level or Lmax – see Figure 4

After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the Noise Technical Analysis. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz (refer to Figure 1 in the CE). The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other Park resources, including visitor experience.

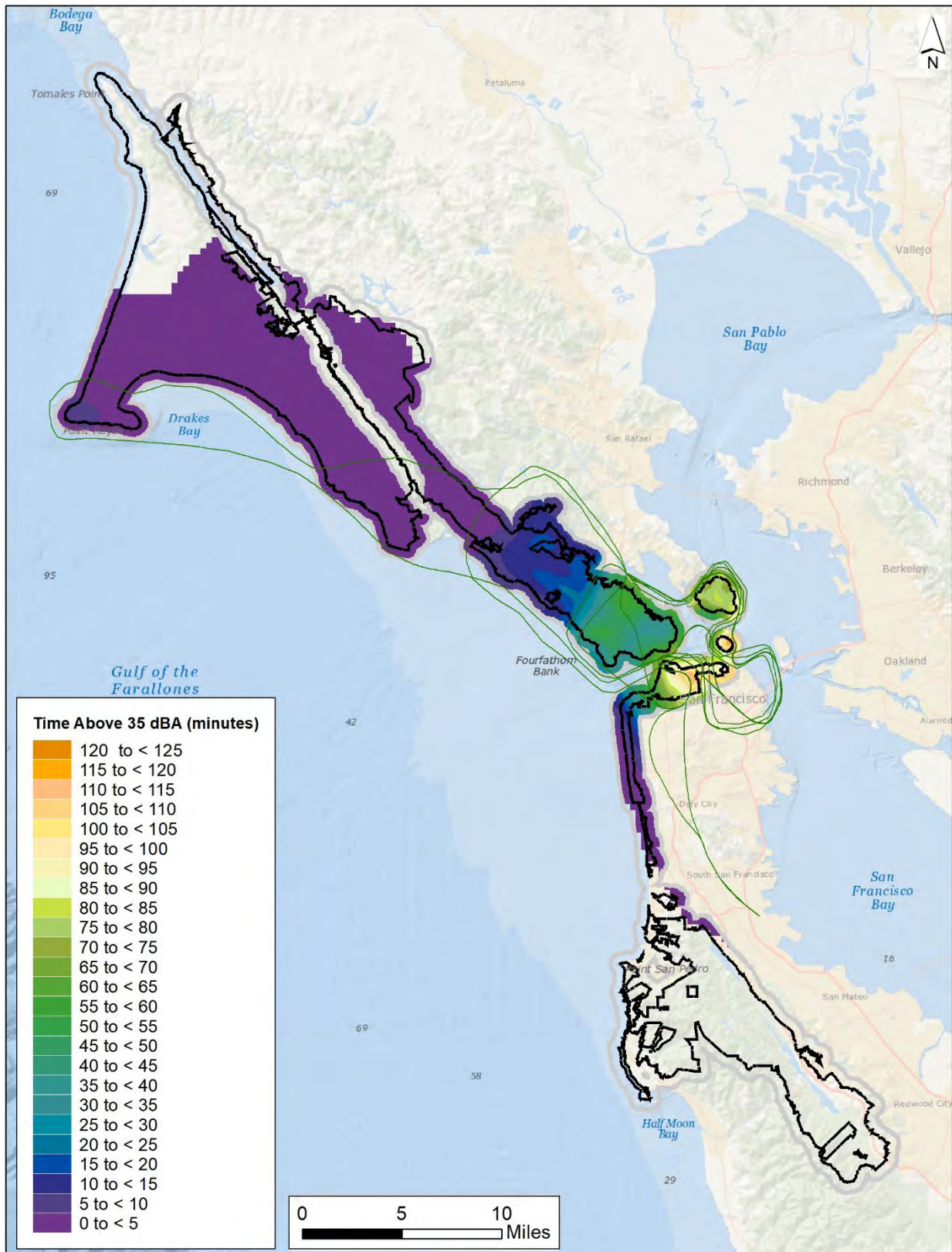


Figure 1. Noise contour results for Time Above 35 dBA

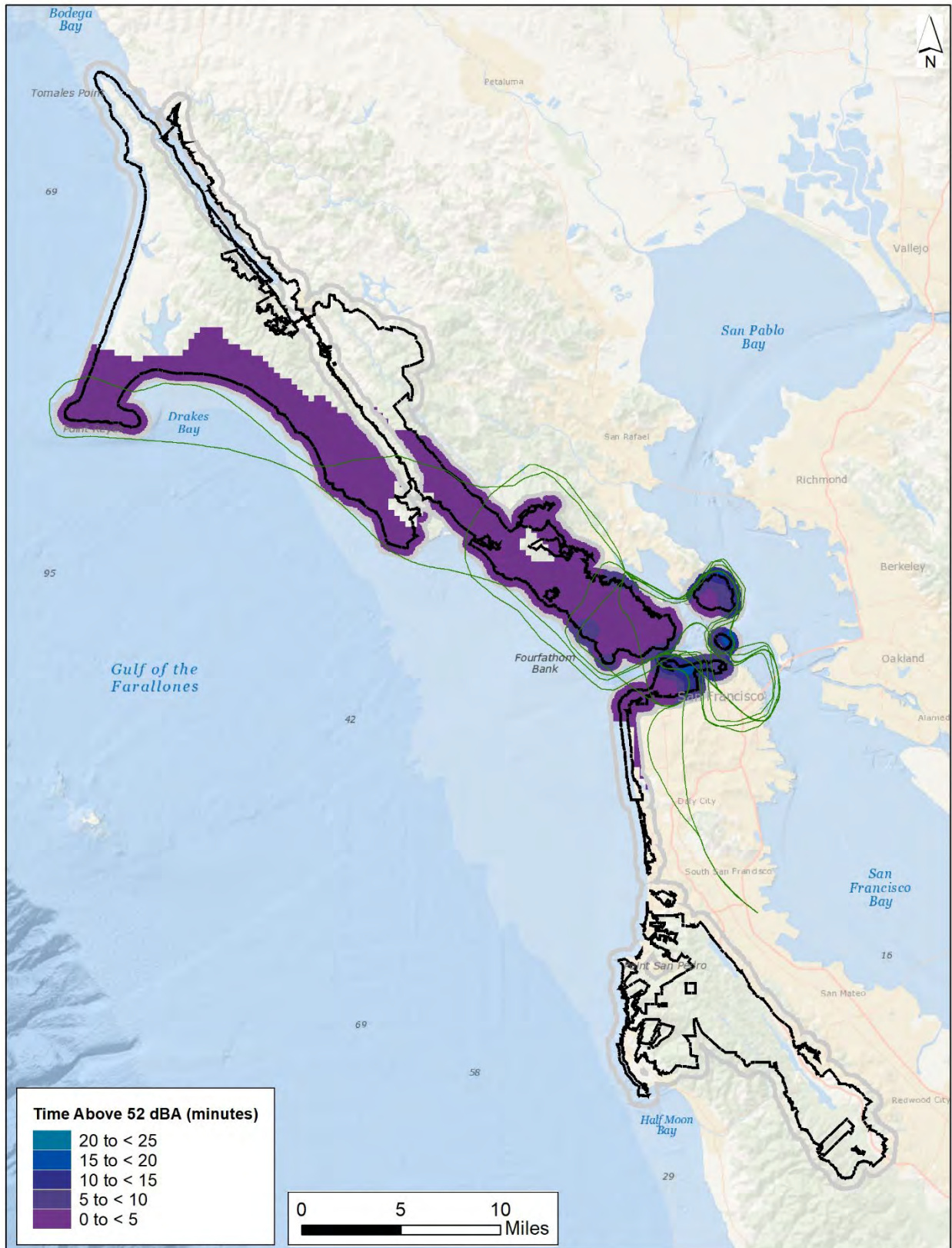


Figure 2. Noise contour results for Time Above 52 dBA

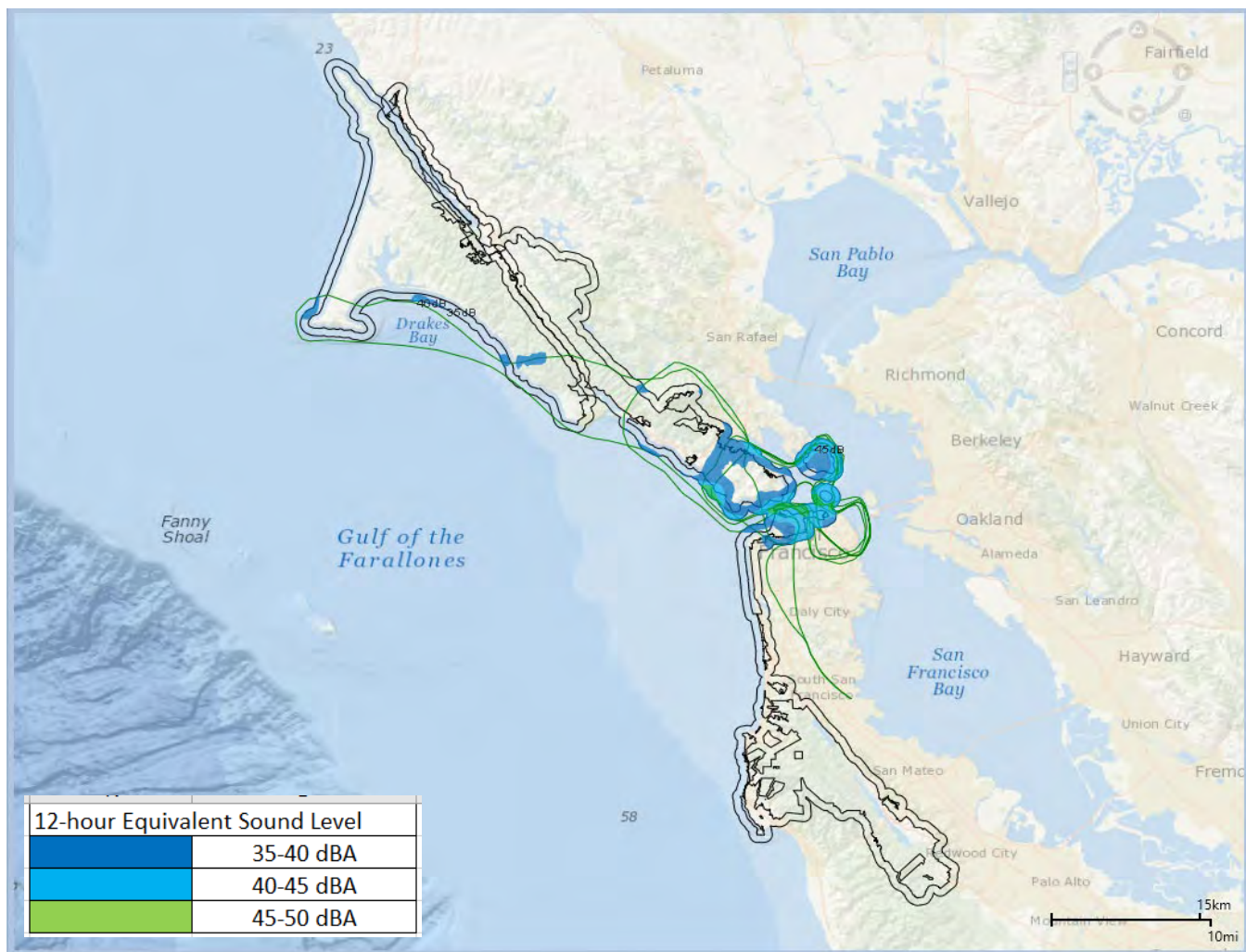


Figure 3. Noise contour results for $L_{Aeq, 12hr}$

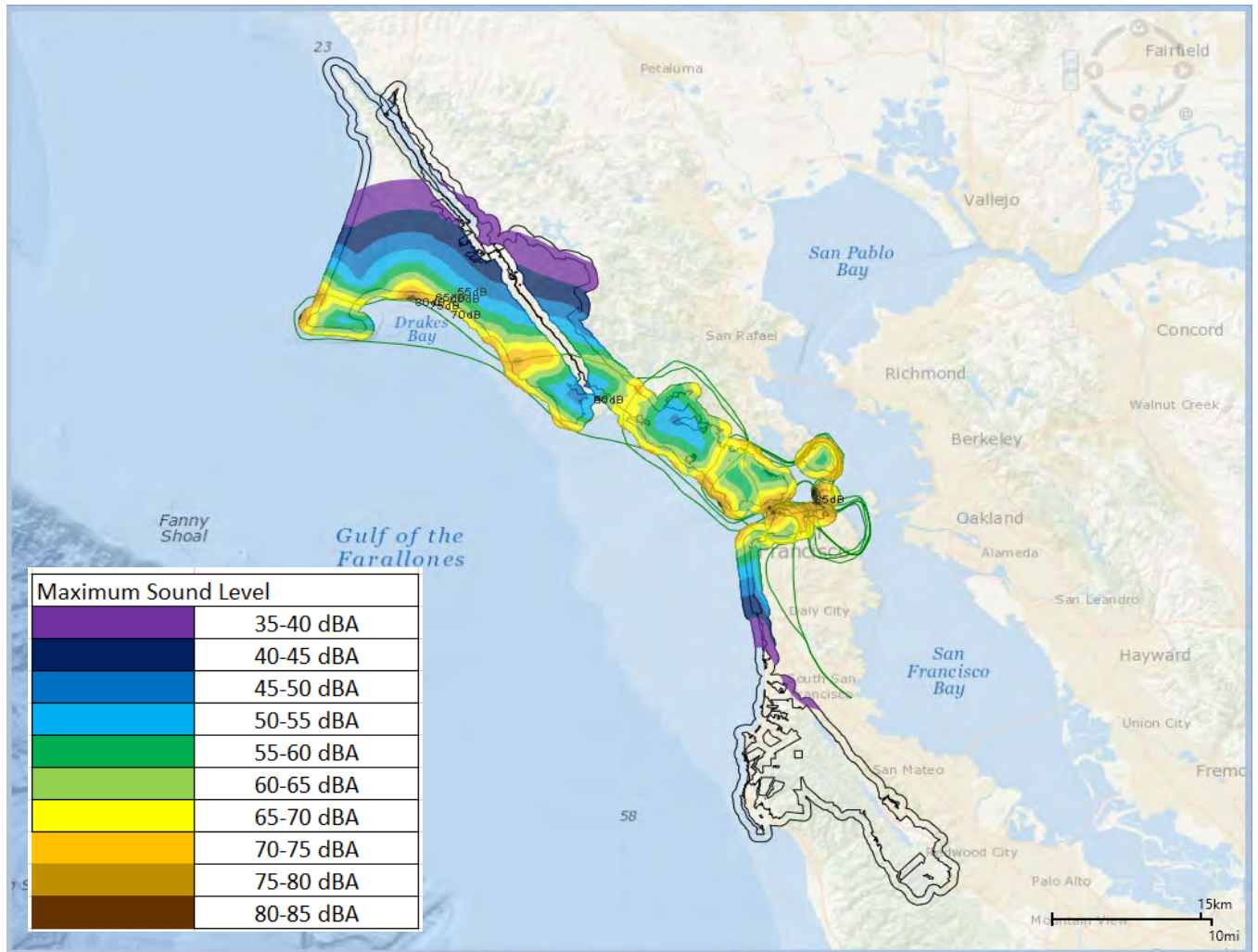


Figure 4. Noise contour results for L_{\max}

APPENDIX G

NPS Statement of Compliance for Golden Gate
National Recreation Area,
San Francisco Maritime National Historical
Park, and Point Reyes National Seashore

APPENDIX G

NATIONAL PARK SERVICE STATEMENT OF COMPLIANCE

San Francisco Maritime National Historical Park Air Tour Management Plan

Compliance with NPS Management Policies Unacceptable Impact and Non-Impairment Standard

As described in National Park Service (NPS or Service) 2006 Management Policies, § 1.4.4, the National Park Service Organic Act prohibits the impairment of park resources and values. *Guidance for Non-Impairment Determinations and the NPS NEPA Process* (September 2011) provides guidance for completing non-impairment determinations for NPS actions requiring preparation of an environmental assessment (EA) or environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The applicable NPS guidance does not require the preparation of a non-impairment determination where a categorical exclusion (CE) is applied because impacts associated with CEs are generally so minimal, they do not have the potential to impair park resources. Nonetheless, out of an abundance of caution, the NPS has completed a non-impairment analysis for the impacts to San Francisco Maritime National Historical Park (Park) as a result of commercial air tours authorized under the Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument and Point Reyes National Seashore and determined that it will not result in impairment of Park resources, or in unacceptable impacts as described in § 1.4.7.1 of the 2006 NPS Management Policies. A separate Statement of Compliance has been completed for Point Reyes National Seashore and Golden Gate National Recreation Area. Impacts to Muir Woods National Monument from commercial air tours are addressed in Golden Gate National Recreation Area Statement of Compliance.

Sections 1.4.5 and 1.4.6 of Management Policies 2006 further explain impairment. Section 1.4.5 defines impairment as an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Section 1.4.5 goes on to state:

An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

Section 1.4.6 of Management Policies 2006 identifies the park resources and values that are subject to the no-impairment standard. These include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

NPS non-impairment analysis normally does not include discussion of impacts to visitor experience, socioeconomics, public health and safety, environmental justice, land use, Park operations, wilderness, etc., as these do not constitute impacts to Park resources and values subject to the non impairment standard under the Organic Act. *See* Management Policies § 1.4.6.

Non-Impairment Determination for the San Francisco Maritime National Historical Park ATMP

The purposes of San Francisco Maritime National Historical Park, along with Park significance statements and a description of the Park's fundamental resources and values, are described in the *Foundation Document Overview for San Francisco Maritime National Historical Park* (Foundation Document), 2017.

Through preservation and interpretation of historic ships, extensive museum collections, traditional maritime skills, and its San Francisco Bay setting, San Francisco Maritime National Historical Park brings America's maritime legacy to life and promotes the understanding and enjoyment of the nation's West Coast maritime heritage (Foundation Document, page 5).

The Park's significance statements highlight resources that are unlikely to be impacted by commercial air tours. The preservation of historic ships and the maritime history collection will not be impacted by commercial air tours nor will commercial air tours alter the rich legacy of the site and seaport (*See* Foundation Document, page 6). The Park's fundamental resources and values include recreational and scenic opportunities. These resources may be impacted by commercial air tours, although the impacts are within the context of and urban audience (*See* Foundation Document, page 7).

As a basis for evaluating the potential for impairment or unacceptable impacts on Park resources, the NPS relied on the environmental analysis in the Environmental Screening Form (ESF) (Appendix B to the Record of Decision (ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), and the Section 106 documentation for the National

Historic Preservation Act (Appendix F to the ROD). The ESF includes analysis of impacts to air quality; biological resources including wildlife, wildlife habitat, and special status species; cultural resources including cultural landscapes, ethnographic resources, prehistoric and historic structures; soundscapes; lightscapes; wilderness; visitor experience; and viewsheds. The ESF considers both the change from current conditions as well the impact from the commercial air tours authorized under the ATMP (*See* ESF, Appendix B to the ROD).

The ATMP would result in limited impacts to the Park's natural and cultural soundscapes. Acoustic conditions in the Park have not been measured but were measured nearby at Golden Gate National Recreation Area in 2007 and 2008. The existing acoustic conditions at the Park have been estimated using data from developed sites at Golden Gate National Recreation Area. Due to the urban setting of the Park, only the existing ambient conditions were considered in the resource impacts analysis. The modeled daytime existing ambient¹ sound level without air tours was 55–60 decibels, which is typical of an urban setting (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974) in which the Park is located. To determine the severity of the effect and potential for impairment, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. Noise modeling for the ATMP discloses that noise exceeding 35 decibels, a level at which natural sounds would be masked, would be present up to 125 minutes on a peak day, defined as a 90th percentile day at some locations in the Park (*See* ESF, Appendix B to the ROD). Because the Park is in an urban setting and the existing ambient exceeds 35 decibels, it is likely this noise would be masked by other noise. Modeling demonstrates that noise exceeding 52 decibels, the level at which a visitor may reasonably expect interference with Park interpretive programs, for up to 10 minutes on a peak day. Noise is not expected to exceed 85 decibels at any time. Again, much of this noise may be masked by other noise in the Park. Regardless, noise exceeding 52 decibels for only 10 minutes a day leaves the Park's natural and cultural soundscape largely unimpacted by commercial air tours and available for the enjoyment by present and future generations with limited interruptions. The Park will continue to preserve the historic resources in the Park and offer the public opportunities to learn about those with the existing soundscape.

ATMP impacts to wildlife could occur from noise generated by commercial air tours, although the Park does not have abundant habitat for species other than aquatic species. Commercial air tours do not have a known impact these species. Some birds use the area, but habitat for these species is limited and most bird species that use the Park are accustomed to noise. Therefore, noise will have very limited impacts on birds that maybe in the area. To determine the severity of the effect and potential for impairment, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. As described above commercial air tours would impact the Park at levels above 35 decibels up to 125 minutes on a peak day. The minimum altitude of 1,000 ft above ground level (AGL) limits noise exposure to wildlife in the Park. Also, the NPS concluded, after discussing the impacts with the

¹ Noise metrics referenced in this document are discussed in detail on pages 8–9 and 14–16 of the ESF.

U.S. Fish and Wildlife Service, that the commercial air tours authorized by the ATMP will have no effect on threatened and endangered species in the Park² (Section 7 documentation, Appendix E to the ROD). In conclusion, the ATMP will not impair the Park's wildlife or its habitat because the impacts from the commercial air tours do not individually rise above 35 decibels over most of the park for more than 125 minutes on a peak day. As documented through this analysis, and in the ESF, impacts to wildlife, either individually or cumulatively, would occur on an individual level and would not affect wildlife on the population level. These impacts do not impair the functioning of the Park's wildlife within. Consistent with the no adverse effect determination, wildlife, including threatened and endangered species, will persist in the Park without a loss of integrity and visitors will continue to enjoy wildlife and their habitats.

Impacts to the Park's cultural resources would be similar in frequency, amplitude, and duration to those described above for wildlife. The analysis in the ESF evaluated the impacts from commercial air tours on ethnographic resources, cultural landscapes, and historic resources. Many of the historic resources the Park protects are inside historic ships or museum properties and will not be impacted at all by noise from commercial air tours. Acting as lead agency for the purposes of compliance with Section 106 of the National Historic Preservation Act with respect to the ATMP, the FAA concluded, in coordination with the NPS, that there would be no adverse effects on historic properties from the 2,548 commercial air tours authorized under the ATMP. The State Historic Preservation Officer concurred with that determination that there would be no adverse effects on historic properties from the 2,548 commercial air tours authorized under the ATMP. The consultation materials documented that the ATMP would not diminish the Park's cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. Additionally, the determination documented that commercial air tours do not adversely affect those elements of ethnographic resources that make them significant to traditionally associated groups, nor does the ATMP interfere with the use of ethnographic resources by these groups. Finally, the analysis documented that the ATMP does not adversely affect the feeling and setting of historic structures that make those sites and structures eligible for listing on the National Register of Historic Properties (*See* Appendices B and F to the ROD). Since there are no adverse effects on these resources and impacts on these resources are limited, these resources would maintain their integrity and purpose and therefore remain unimpaired for the enjoyment of future generations under the ATMP.

As disclosed in the ESF, the ATMP may have very limited impacts on the Park's viewshed or scenic views. The Park's scenic views are a fundamental resource. As noted in the ESF, aircraft are not typically included in viewshed analyses because they are transitory. They are most noticeable because of the noise associated with them. Because of the Park location within and near urban environments, aircraft of all types are common and expected from most viewing areas. Commercial air tours therefore likely do not detract from viewsheds within the Park. As a result, visitors will continue to be able to enjoy the Park's beautiful views unimpaired.

² No effect means there will be no consequences to listed species or critical habitat that result from the proposed action.

The NPS completed an air quality analysis and determined that the 2,548 commercial air tours authorized under the ATMP contributes a minimal amount of emissions to the local air quality and would not have a regional impact (*See* ESF, Air Quality Technical Analysis, Appendix B to the ROD). Because the amount of emissions is so small the ATMP does not affect the integrity of the Park's air quality, leaving it unimpaired for future enjoyment.

As demonstrated here and in the analysis referenced above, the impacts to these resources, neither individually nor cumulatively, would preclude the NPS from achieving the purpose of the Park or desired conditions for resources; and would not unreasonably interfere with Park programs or activities, another appropriate use, the overall atmosphere of peace and tranquility or the natural soundscape, or NPS concessioner or contractor operations or services. As a result, there will not be impairment of or unacceptable impacts to the Park's natural and cultural resources or visitor experience. Impacts to other resources potentially affected were considered so small and insignificant that they did not warrant a written analysis here.

The ATMP sections on adaptive management and amending the plan will allow park managers to ensure that unanticipated or unacceptable impacts do not occur and the requirement for implementing flight tracking technologies included in the ATMP will better enable the NPS to monitor and enforce the restrictions in the ATMP.

Compliance with NPS Management Policies Regarding Appropriate Uses

A separate written appropriate use analysis is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider whether commercial air tours are an appropriate use over the Park, for this ATMP the NPS has decided to briefly address the issue of appropriate use below.

NPS 2006 Management Policies § 1.5 state:

An "appropriate use" is a use that is suitable, proper, or fitting for a particular park, or to a particular location within a park. Not all uses are appropriate or allowable in units of the national park system, and what is appropriate may vary from one park to another and from one location to another within a park."

Section 8.1.2 of Management Policies further explain:

The fact that a park use may have an impact does not necessarily mean it will be unacceptable or impair park resources or values for the enjoyment of future generations. Impacts may affect park resources or values and still be within the limits of the discretionary authority conferred by the Organic Act. In these situations, the Service will ensure that the impacts are unavoidable and cannot be further mitigated.

In determining whether a use is appropriate, the NPS evaluates:

- consistency with applicable laws, executive orders, regulations, and policies;
- consistency with existing plans for public use and resource management;
- actual and potential effects on park resources and values;

- total costs to the Service;
- whether the public interest will be served.

Parks may allow uses that are appropriate even if some individuals do not favor that particular use. The National Park Air Tour Management Act (NPATMA) contemplates that commercial air tours may be an acceptable use over National Park System units so long as protections are in place to protect park resources from significant impacts of such tours, if any. Therefore, commercial air tours are authorized by law, though not mandated, and generally may be appropriate where they do not result in significant impacts or cause unacceptable impacts on park resources and values.

San Francisco Maritime National Historical Park ATMP – consistency with NPS Management Policies for Appropriate Uses

The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), the unacceptable impact and non-impairment analysis above, and the language in NPATMA as a basis for finding that the ATMP's authorization of 2,548 commercial air tours over San Francisco Maritime National Historical Park is an appropriate use.

- The ATMP for San Francisco Maritime National Historical Park is consistent with applicable laws, executive orders, regulations, and policies. NPATMA specifically provides that air tours may be allowed over National Park System units where they do not result in significant impacts. Commercial air tours are not prohibited in applicable laws, regulations, or policies.
- The ATMP's authorization of 2,548 commercial air tours over the Park is consistent with the Park's existing management plans. No existing management plans preclude commercial air tours, though the Park may set different management direction in the future. Mitigations, including limiting the number of commercial air tours per year, restricting commercial air tours to the designated route, and setting minimum altitudes, limit impacts to visitor experience and other resources.
- The effects of the 2,548 commercial air tours authorized in the ATMP on Park resources was evaluated in the materials referenced above and unacceptable impact and non-impairment discussion above. The Park is in an urban environment and much of the noise from commercial air tours will be masked by other noise. As noted in the ESF, a recent visitor survey noted that noise was not a problem at the Park. The commercial air tours are short in duration and occur at decibel levels that do not rise to the level of an unacceptable impact nor impair Park resources. The NPS does not interpret § 8.1.1 to require the NPS to contemplate mitigating Park uses to the point that the use no longer has any impact or no longer can occur. Rather, this section requires the NPS to consider whether there are mitigations that can reduce impacts to Park resources and whether the impacts of those uses, after applying mitigations, result in unacceptable impacts or impairment. In this case, the NPS evaluated the impacts of 2,548 commercial air tours and included specific mitigations in the ATMP to minimize impacts to Park resources.

The NPS acknowledges that prohibiting commercial air tours entirely would avoid all impacts to Park resources, but the elimination of commercial air tours is not required to avoid unacceptable impacts or impairment of Park resources. The NPS believes the mitigations in the ATMP are sufficient to protect Park resources and that additional mitigations are not required because the impacts associated with the ATMP are not significant and do not result in unacceptable impacts or impairment.

- The cost to the NPS from implementing the ATMP includes yearly compiling of operator reported commercial air tours and aircraft monitoring data which is done in coordination with the Federal Aviation Administration. These activities would occur anyway, because they are required under NPATMA, regardless of whether the Park has an ATMP because commercial air tours are currently authorized under interim operating authority (IOA). This is done by the NPS's Natural Sounds and Night Skies Division which also provides noise monitoring, modeling, and planning support to parks across the country.
- While some visitors may not like commercial air tours, others appreciate the opportunity to view the Park from a commercial air tour. Commercial air tours, as contemplated in NPATMA, serve the public in this way.

Additional commercial air tours and commercial air tours on other routes may not be appropriate. However, the NPS has determined that because the ATMP authorizes 2,548 commercial air tours, and because those commercial air tours are restricted to designated routes, are relatively short in duration, and are at an acceptable altitude, the ATMP is adequately protective of Park resources and the commercial air tours it authorizes are an appropriate use of the Park at this time.

Compliance with NPS Management Policies for Soundscape Management

A separate written compliance analysis for Soundscape Management is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider whether the ATMP complies with NPS soundscape policies and guidance, the NPS has opted to briefly discuss the issue with respect to this ATMP.

Management Policies § 4.9 states, "The National Park Service will preserve, to the greatest extent possible, the natural soundscapes of parks." Section 5.3.1.7 similarly addresses cultural and historic resource sounds.

Section 8.4 specifically addresses overflights, including commercial air tours, which notes

Although there are many legitimate aviation uses, overflights can adversely affect park resources and values and interfere with visitor enjoyment. The Service will take all necessary steps to avoid or mitigate unacceptable impacts from aircraft overflights.

Because the nation's airspace is managed by the Federal Aviation Administration (FAA), the Service will work constructively and cooperatively with the Federal Aviation Administration and national defense and other agencies to ensure that authorized aviation activities affecting units of the National Park System occur in a safe manner and do not cause unacceptable impacts on park resources and values and visitor experiences.

Director's Order #47 gives further guidance for the management of natural and cultural soundscapes, requiring the consideration of both the natural and existing ambient levels.

San Francisco Maritime National Historical Park ATMP – consistency with NPS Management Policies for Soundscape Management.

Consistent with Management Policies § 8.4, the NPS worked constructively and collaboratively with FAA to develop the ATMP. The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), and the unacceptable impact and non-impairment analysis above as a basis for finding that the ATMP complies with the policies and guidance for management of natural and cultural soundscapes.

Consistent with Management Policies § 4.9, the ATMP eliminates some noise, or moves the Park closer to natural ambient conditions, by limiting commercial air tours to 2,548 per year, which is a reduction from the current authorized number (5,090) under IOA (*See* ATMP, Appendix A to the ROD). In addition, the ATMP limits the operation of commercial air tours to between 9:00 AM until 30 minutes after sunset, establishes designated air tour routes, increases the minimum altitude that commercial air tours may fly over the Park to no lower than 1,000 ft. AGL and includes quiet technology incentives which could further reduce noise. The commercial air tours occur along designated routes, which protects most of these areas from the intermittent, and short duration noise effects of commercial air tours.

Management Policies § 5.3.1.7 prohibits excessive noise and § 1.4.7.1 prohibits actions that unreasonably interfere with “the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.” Because of the location of the Park which includes substantial noise from other sources outside the Park, a natural soundscape is highly unlikely to ever occur. As noted above, commercial air tour noise should not exceed 52 decibels for more than 10 minutes. Some mitigations have been included to reduce noise compared to current condition. Commercial air tour noise is neither excessive nor does it unreasonably interfere with the peace and tranquility of the Park, or natural or historic or commemorative locations. In conclusion, the ATMP complies with § 8.4, § 4.9, and § 5.3.1.7 of the Management Policies because the NPS has successfully collaborated with the FAA and developed an ATMP that will not result in unacceptable impacts to natural or cultural soundscapes or impairment of Park resources.

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National Park Service. (2000). Director's Order #47: Soundscape Preservation and Noise Management. Available at https://www.nps.gov/subjects/policy/upload/DO_47_12-1-2000.pdf

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APPENDIX G

NATIONAL PARK SERVICE STATEMENT OF COMPLIANCE

Point Reyes National Seashore Air Tour Management Plan

Compliance with NPS Management Policies Unacceptable Impact and Non-Impairment Standard

As described in National Park Service (NPS or Service) 2006 Management Policies, § 1.4.4, the National Park Service Organic Act prohibits the impairment of park resources and values. *Guidance for Non-Impairment Determinations and the NPS NEPA Process* (September 2011) provides guidance for completing non-impairment determinations for NPS actions requiring preparation of an environmental assessment (EA) or environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The applicable NPS guidance does not require the preparation of a non-impairment determination where a categorical exclusion (CE) is applied because impacts associated with CEs are generally so minimal, they do not have the potential to impair park resources. Nonetheless, out of an abundance of caution, the NPS has completed a non-impairment analysis for the impacts to Point Reyes National Seashore (Park) as a result of commercial air tours authorized under the Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore and determined that they will not result in impairment of Park resources, or in unacceptable impacts as described in § 1.4.7.1 of the 2006 NPS Management Policies. A separate Statement of Compliance has been completed for Golden Gate National Recreation Area and San Francisco Maritime National Historic Park. The ATMP does not authorize commercial air tours over Muir Woods National Monument and therefore the NPS has not prepared a separate Statement of Compliance for that park. Impacts to Muir Woods National Monument from commercial air tours are addressed in Golden Gate National Recreation Area Statement of Compliance.

Sections 1.4.5 and 1.4.6 of Management Policies 2006 further explain impairment. Section 1.4.5 defines impairment as an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Section 1.4.5 goes on to state:

An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

Section 1.4.6 of Management Policies 2006 identifies the park resources and values that are subject to the no-impairment standard. These include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

NPS non-impairment analysis normally does not include discussion of impacts to visitor experience, socioeconomics, public health and safety, environmental justice, land use, Park operations, wilderness, etc., as these do not constitute impacts to Park resources and values subject to the non impairment standard under the Organic Act. *See* Management Policies § 1.4.6.

Non-Impairment Determination for the Point Reyes National Seashore ATMP

The purposes of Point Reyes National Seashore, along with Park significance statements and a description of the Park's fundamental resources and values, are described in the *Foundation Document Point Reyes National Seashore* (Foundation Document), 2020.

Park Purpose: Established for public benefit, recreation, and inspiration, Point Reyes National Seashore preserves a rugged and wild coastal peninsula and surrounding waters, connecting native ecosystems, enduring human history, and interpretive, scientific, and educational opportunities (Foundation Document, page 5).

The Park's significance statements highlight resources that may be impacted by commercial air tours including wilderness character, wildlife, and cultural resources. The scenic coastal landscapes of the Park may also be impacted by commercial air tours (*See* Foundation Document, page 6). Additionally, a number of the Park's fundamental resources and values could be impacted by commercial air tours including the Park's diverse wildlife habitats and opportunities for inspiration (*See* Foundation Document, page 8). The analysis in this statement includes 15,000 acres of the North District of Golden Gate National Recreation Area, including all NPS lands north of Bolinas-Fairfax Road. This area of Golden Gate National Recreation Area is managed by Point Reyes National Seashore.

As a basis for evaluating the potential for impairment or unacceptable impacts on Park resources, the NPS relied on the environmental analysis in the Environmental Screening Form (ESF) (Appendix B to the Record of Decision (ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), and the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD). The ESF includes analysis of impacts to air quality; biological resources including wildlife, wildlife habitat, and special status species; cultural resources including cultural landscapes, ethnographic resources, prehistoric and historic structures; soundscapes; lightscapes; wilderness; visitor experience; and viewsheds. The ESF considers both the change from current conditions as well the impact from the commercial air tours authorized under the ATMP (*See* ESF, Appendix B to the ROD).

The ATMP would result in limited impacts to the Park's natural and cultural soundscapes. Acoustic conditions in the Park were measured in 2009 and 2010 (Lee & MacDonald, 2011). At locations nearest existing air tour routes, the existing ambient sound level (L_{50})¹ was reported to be 30–40 decibels, while the natural ambient (L_{nat}) was reported to be 25–35 decibels. These metrics confirm that the natural acoustic environment at these sites experience disturbances from anthropogenic noise. Buxton, et al. (2017) found that anthropogenic noise in protected areas is closely linked with transportation, development, and other uses. To determine the severity of the effect and potential for impairment from commercial air tours, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. Noise modeling for the ATMP discloses that noise from 143 annual commercial air tours would be present at any location in the Park no more than 10 minutes on a peak day, defined as a 90th percentile day (*See* ESF, Appendix B to the ROD). Most areas of the Park would experience noise above 35 decibels, a level at which natural sounds would be masked, less than 5 minutes on a peak day. The area around the Lighthouse Visitor Center, Point Reyes Lighthouse and Sea Lion Overlook would experience noise up to 35 decibels approximately 10 minutes on a peak day. The maximum noise level is not expected to exceed 52 decibels for more than 5 minutes at any location in the Park on a peak day, the level at which a visitor may reasonably expect interference with Park interpretive programs (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD). Approximately half of the Park will never experience noise at or above 52 decibels and noise from air tours will be present less than half of the days of the year. Therefore, the natural and cultural soundscapes of the Park remain unimpaired and without unacceptable impacts under the ATMP since noise impacts are limited to approximately half of the Park and noise in that area only exceeds 52 decibels for 5 minutes on a peak day and commercial air tour noise will not be present every day. Because the noise is short in duration and infrequent with the loudest noise focused near or beneath the designated routes, the Park's natural and cultural soundscape will be largely unimpacted by commercial air tours and available for the enjoyment by present and future generations.

ATMP impacts to wildlife occur from noise generated by commercial air tours. The analysis in the ESF discloses that noise would likely be heard by wildlife near the route (*See* Appendix B to the ROD). Generally, noise from commercial air tours may impact wildlife in a number of ways:

¹ Noise metrics referenced in this document are discussed in detail on pages 8–9 and 14–16 of the ESF.

altered vocal behavior, breeding relocation, changes in vigilance and foraging behavior, predator avoidance, reproductive success, and impacts on individual fitness and the structure of ecological communities to name a few (Shannon et al., 2016; Kunc et al., 2016; Kunc and Schmidt, 2019). To determine the severity of the effect and potential for impairment, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. The analysis demonstrates that the 143 commercial air tours would impact the Park at levels above 35 decibels for no more than 10 minutes on a peak day. Most Park wildlife would not experience noise above 35 decibels more than 5 minutes on a peak day. The minimum altitude required along the route includes altitude protections (required 2,500 ft AGL) and setbacks for areas with sensitive wildlife. Therefore, the AGL requirements limit noise exposure to wildlife in the Park, including the Park's threatened and endangered species. The NPS concluded, after discussing the impacts with the U.S. Fish and Wildlife Service, that the commercial air tours authorized by the ATMP will have no effect on threatened and endangered species in the Park² (Section 7 documentation, Appendix E to the ROD). In conclusion, the ATMP will not impair the Park's wildlife or its habitat because the impacts from the commercial air tours do not individually rise above 35 decibels for more than 10 minutes on a peak day. As documented through this analysis, and in the ESF, impacts to wildlife, either individually or cumulatively, would occur on an individual level and would not affect wildlife on the population level. These impacts do not impair the functioning of the Park's unique ecosystems and the wildlife within. Consistent with the no adverse effect determination, wildlife, including threatened and endangered species, will persist in the Park without a loss of integrity and visitors will continue to enjoy wildlife and their habitats.

Impacts to the Park's cultural resources would be similar in frequency, amplitude, and duration to those described above for wildlife. The analysis in the ESF evaluated the impacts from commercial air tours on cultural landscapes, ethnographic resources, and historic resources. Because of the number and times commercial air tours occur, and the location of the routes, noise impacts to these resources will be limited. Acting as lead agency for the purposes of compliance with Section 106 of the National Historic Preservation Act with respect to the ATMP, the FAA concluded, in coordination with the NPS, that there would be no adverse effects on historic properties from the 143 commercial air tours authorized under the ATMP. The State Historic Preservation Officer concurred with that determination that there would be no adverse effects on historic properties from the 143 commercial air tours authorized under the ATMP. The consultation materials documented that the ATMP would not diminish the Park's cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. Additionally, the determination documented that commercial air tours do not adversely affect those elements of ethnographic resources that make them significant to traditionally associated groups, nor does the ATMP interfere with the use of ethnographic resources by these groups. Finally, the analysis documented that the ATMP does not adversely affect the feeling and setting of historic structures that make those sites and structures eligible for listing on the National Register of Historic Properties (*See* Appendices B and F to the ROD). Since there are no adverse effects on these resources and impacts on these resources are limited, these resources would

² No effect means there will be no consequences to listed species or critical habitat that result from the proposed action.

maintain their integrity and purpose and therefore remain unimpaired for the enjoyment of future generations under the ATMP.

As disclosed in the ESF, the ATMP may have very limited impacts on the Park's viewshed or scenic views. The Park's scenic views are a fundamental resource. Commercial air tours will be visible from some observation points in the Park. As noted in the ESF, aircraft are not typically included in viewshed analyses because they are transitory. They are most noticeable because of the noise associated with them. As noted above, due to the short duration of the effects as well as the limited area air tours will be present, impacts to the Park's viewshed will be limited. As a result, visitors will continue to be able to enjoy the Park's beautiful views unimpaired.

The NPS completed an air quality analysis and determined that the 143 commercial air tours authorized under the ATMP contributes a minimal amount of emissions to the local air quality and would not have a regional impact (*See* ESF, Air Quality Technical Analysis, Appendix B to the ROD). Because the amount of emissions is so small the ATMP does not affect the integrity of the Park's air quality, leaving it unimpaired for future enjoyment.

As demonstrated here and in the analysis referenced above, the impacts to these resources, neither individually nor cumulatively, would preclude the NPS from achieving the purpose of the Park or desired conditions for resources; and would not unreasonably interfere with Park programs or activities, another appropriate use, the overall atmosphere of peace and tranquility or the natural soundscape, or NPS concessioner or contractor operations or services. As a result, there will not be impairment of or unacceptable impacts to the Park's natural and cultural resources or visitor experience. Impacts to other resources potentially affected were considered so small and insignificant that they did not warrant a written analysis here.

The ATMP sections on adaptive management and amending the plan will allow park managers to ensure that unanticipated or unacceptable impacts do not occur and the requirement for implementing flight tracking technologies included in the ATMP will better enable the NPS to monitor and enforce the restrictions in the ATMP.

Compliance with NPS Management Policies Regarding Appropriate Uses

A separate written appropriate use analysis is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider whether commercial air tours are an appropriate use over the Park, for this ATMP the NPS has decided to briefly address the issue of appropriate use below.

NPS 2006 Management Policies § 1.5 state:

An "appropriate use" is a use that is suitable, proper, or fitting for a particular park, or to a particular location within a park. Not all uses are appropriate or allowable in units of the national park system, and what is appropriate may vary from one park to another and from one location to another within a park."

Section 8.1.2 of Management Policies further explain:

The fact that a park use may have an impact does not necessarily mean it will be unacceptable or impair park resources or values for the enjoyment of future generations. Impacts may affect park resources or values and still be within the limits of the discretionary authority conferred by the Organic Act. In these situations, the Service will ensure that the impacts are unavoidable and cannot be further mitigated.

In determining whether a use is appropriate, the NPS evaluates:

- consistency with applicable laws, executive orders, regulations, and policies;
- consistency with existing plans for public use and resource management;
- actual and potential effects on park resources and values;
- total costs to the Service;
- whether the public interest will be served.

Parks may allow uses that are appropriate even if some individuals do not favor that particular use. The National Park Air Tour Management Act (NPATMA) contemplates that commercial air tours may be an acceptable use over National Park System units so long as protections are in place to protect park resources from significant impacts of such tours, if any. Therefore, commercial air tours are authorized by law, though not mandated, and generally may be appropriate where they do not result in significant impacts or cause unacceptable impacts on park resources and values.

Point Reyes National Seashore ATMP – consistency with NPS Management Policies for Appropriate Uses

The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), the unacceptable impact and non-impairment analysis above, and the language in NPATMA as a basis for finding that the ATMP's authorization of 143 commercial air tours over Point Reyes National Seashore is an appropriate use.

- The ATMP for Point Reyes National Seashore is consistent with applicable laws, executive orders, regulations, and policies. NPATMA specifically provides that commercial air tours may be allowed over National Park System units where they do not result in significant impacts. Commercial air tours are not prohibited in applicable laws, regulations, or policies.
- The ATMP's authorization of 143 commercial air tours over the Park is consistent with the Park's existing management plans. No existing management plans preclude commercial air tours, though the Park may set different management direction in the future. Mitigations, including limiting the number of commercial air tours per year, restricting commercial air tours to the designated route, and setting minimum altitudes, limit impacts to visitor experience and other resources.

- The effects of the 143 commercial air tours authorized in the ATMP on Park resources was evaluated in the materials referenced above and unacceptable impact and non-impairment discussion above. The Park will not experience noise above 35 decibels from commercial air tours for more than 10 minutes on a peak day. Most areas will not experience noise above 35 decibels for more than 5 minutes on a peak day. Commercial air tours will not occur on at least half of the days each year. The commercial air tours are short in duration and occur at decibels levels that do not rise to the level of an unacceptable impact nor impair Park resources. The NPS does not interpret § 8.1.1 to require the NPS to contemplate mitigating Park uses to the point that the use no longer has any impact or no longer can occur. Rather, this section requires the NPS to consider whether there are mitigations that can reduce impacts to Park resources and whether the impacts of those uses, after applying mitigations, result in unacceptable impacts or impairment. In this case, the NPS evaluated the impacts of 143 commercial air tours and included specific mitigations in the ATMP to minimize impacts to Park resources. These mitigations included setbacks for wildlife, restricted hours in which tours may occur, and altitude protections for wildlife and wilderness protection. The NPS acknowledges that prohibiting commercial air tours entirely would avoid all impacts to Park resources, but the elimination of commercial air tours is not required to avoid unacceptable impacts or impairment of Park resources. The NPS believes the mitigations in the ATMP are sufficient to protect Park resources and that additional mitigations are not required because the impacts associated with the ATMP are not significant and do not result in unacceptable impacts or impairment.
- The cost to the NPS from implementing the ATMP includes yearly compiling of operator reported commercial air tours and aircraft monitoring data which is done in coordination with the Federal Aviation Administration. These activities would occur anyway, because they are required under NPATMA, regardless of whether the Park has an ATMP because commercial air tours are currently authorized under interim operating authority (IOA). This is done by the NPS's Natural Sounds and Night Skies Division which also provides noise monitoring, modeling, and planning support to parks across the country.
- While some visitors may not like commercial air tours, others appreciate the opportunity to view the Park from a commercial air tour. Commercial air tours, as contemplated in NPATMA, serve the public in this way.

Additional commercial air tours and commercial air tours on other routes may not be appropriate. However, the NPS has determined that because the ATMP authorizes 143 commercial air tours, and because those commercial air tours are restricted to designated routes, are relatively short in duration, and are at an acceptable altitude, the ATMP is adequately protective of Park resources and the commercial air tours it authorizes are an appropriate use of the Park at this time.

Compliance with NPS Management Policies for Soundscape Management

A separate written compliance analysis for Soundscape Management is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider

whether the ATMP complies with NPS soundscape policies and guidance, the NPS has opted to briefly discuss the issue with respect to this ATMP.

Management Policies § 4.9 states, “The National Park Service will preserve, to the greatest extent possible, the natural soundscapes of parks.” Section 5.3.1.7 similarly addresses cultural and historic resource sounds.

Section 8.4 specifically addresses overflights, including commercial air tours, which notes

Although there are many legitimate aviation uses, overflights can adversely affect park resources and values and interfere with visitor enjoyment. The Service will take all necessary steps to avoid or mitigate unacceptable impacts from aircraft overflights.

Because the nation’s airspace is managed by the Federal Aviation Administration (FAA), the Service will work constructively and cooperatively with the Federal Aviation Administration and national defense and other agencies to ensure that authorized aviation activities affecting units of the National Park System occur in a safe manner and do not cause unacceptable impacts on park resources and values and visitor experiences.

Director’s Order #47 gives further guidance for the management of natural and cultural soundscapes, requiring the consideration of both the natural and existing ambient levels.

Point Reyes National Seashore ATMP – consistency with NPS Management Policies for Soundscape Management.

Consistent with Management Policies § 8.4, the NPS worked constructively and collaboratively with FAA to develop the ATMP. The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), and the unacceptable impact and non-impairment analysis above as a basis for finding that the ATMP complies with the policies and guidance for management of natural and cultural soundscapes.

Consistent with Management Policies § 4.9, the ATMP eliminates some noise, or moves the Park closer to natural ambient conditions, by limiting commercial air tours to 143 per year, which is a reduction from the current authorized number (5,090) under IOA (*See* ATMP, Appendix A to the ROD). In addition, the ATMP limits the hours in which commercial air tours may occur (tours may only occur between 12:00 pm and 5:00 pm), restricts commercial air tours to designated routes, requires operators fly a minimum altitude between 1,500 ft. AGL to 2,500 ft. AGL depending on location, and includes quiet technology incentives which could further reduce noise. When developing the ATMP, the NPS considered the commercial air tour routes and evaluated the potential for noise to reach the most sensitive resources in the Park, including cultural and natural resources, and areas where commercial air tours could disrupt educational and interpretive opportunities. None of the visitor centers at the Park would experience noise above 52 decibels for more than 5 minutes a day leaving most educational and interpretative programs at these sites free from interruption from commercial air tours.

Management Policies § 5.3.1.7 prohibits excessive noise and § 1.4.7.1 prohibits actions that unreasonably interfere with “the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.” Acoustic conditions in the Park were measured in 2009 and 2010 (Lee & MacDonald, 2011). At locations nearest existing air tour routes, the existing ambient sound level (L_{50}) was reported to be 30–40 decibels, while the natural ambient (L_{nat}) was reported to be 25–35 decibels. When determining the severity of the impacts, results from the noise modeling for the ATMP were considered against both the natural soundscape and existing soundscape. In this case, there is some evidence of anthropogenic noise, including aircraft noise. As discussed above under the non-impairment discussion, the noise from commercial air tours is limited, both spatially and temporally. Therefore, the noise from commercial air tours is neither excessive nor does it unreasonably interfere with the peace and tranquility of the Park, wilderness character, or natural or historic or commemorative locations. In conclusion, the ATMP complies with § 8.4, § 4.9, and § 5.3.1.7 of the Management Policies because the NPS has successfully collaborated with the FAA and developed an ATMP that will not result in unacceptable impacts to natural or cultural soundscapes or impairment of Park resources.

Compliance with NPS Management Policies for Wilderness Preservation and Management

A separate written compliance analysis for Wilderness Preservation and Management is not required under NPS Management Policies. In recognition of comments suggesting that the NPS consider whether the ATMP complies with NPS wilderness policies and guidance, the NPS has elected to briefly discuss the issue with respect to this ATMP.

Management Policies for wilderness preservation and management do not specifically address commercial air tours. However, § 7.3 of Director’s Order #41 notes that commercial air tours are inconsistent with preservation of wilderness character and requires the NPS to consider ways to further prevent or minimize impacts of commercial air tours on wilderness character.

The ATMP does not allow commercial air tours to take off or land within wilderness. Therefore, § 4(c) of the Wilderness Act and § 6.4 of Director’s Order #41 do not apply and a minimum requirements analysis is not required. While the NPS did not complete a minimum requirements analysis, the NPS did analyze and report on the impacts of commercial air tours on wilderness character and minimized those impacts.

Point Reyes National Seashore ATMP – consistency with NPS Management Policies for Wilderness Preservation and Management.

The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the unacceptable impact and non-impairment analysis above, and soundscape management analysis above as a basis for finding that the ATMP complies with the policies and guidance for Wilderness Preservation and Management.

Point Reyes National Seashore includes the 33,000-acre Phillip Burton Wilderness. The NPS considered the impact of 143 commercial air tours on wilderness character. The ESF

acknowledges noise from aircraft could impact wilderness character although the analysis demonstrates that the impact is limited. The ATMP requires aircraft to fly at least 2,500 ft AGL above Bolinas Ridge and Inverness Ridge and at 1,500 ft AGL over the Point Reyes headlands area in order to limit noise to wilderness. The wilderness at Tomales Point will not experience any noise from commercial air tours. Much of the remainder of the Phillip Burton Wilderness will not experience noise above 52 decibels and where the decibel levels reach that level, it will not exceed 5 minutes. Most of the Phillip Burton Wilderness will not experience noise above 35 decibels more than 5 minutes. Because of the limited number of tours, at least half of the year there will be no noise in wilderness from commercial air tours. In conclusion, as described in detail above and in the ESF, noise from commercial air tours over wilderness will be short and at an amplitude that impacts to wilderness character will be limited. Wilderness character will remain unimpaired under the ATMP since a Park visitor will have the opportunity to hear the sounds of nature and experience the primeval character of the Park's wilderness, and the natural and cultural soundscape will remain largely unmarred by air tour noise the vast majority of time.

Consistent with Director's Order #41, § 7.3, the ATMP includes mitigations which minimize impacts to wilderness character including limiting commercial air tours to 143 per year, requiring aircraft to fly above 1,500 ft. AGL over most of the Park, and between 2,000 ft AGL and 2,500 ft. AGL over certain wilderness portions, and requiring the commercial air tours to stay on designated routes (*See* ATMP, § 5.0, Appendix A to the ROD).

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APPENDIX G

NATIONAL PARK SERVICE STATEMENT OF COMPLIANCE

For Golden Gate National Recreation Area

Compliance with NPS Management Policies Unacceptable Impact and Non-Impairment Standard

As described in National Park Service (NPS or Service) 2006 Management Policies, § 1.4.4, the National Park Service Organic Act prohibits the impairment of park resources and values. *Guidance for Non-Impairment Determinations and the NPS NEPA Process* (September 2011) provides guidance for completing non-impairment determinations for NPS actions requiring preparation of an environmental assessment (EA) or environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The applicable NPS guidance does not require the preparation of a non-impairment determination where a categorical exclusion (CE) is applied because impacts associated with CEs are generally so minimal, they do not have the potential to impair park resources. Nonetheless, out of an abundance of caution, the NPS has completed a non-impairment analysis for the impacts to Golden Gate National Recreation Area (Park) as a result of commercial air tours authorized under the Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument and Point Reyes National Seashore and determined that it will not result in impairment of Park resources, or in unacceptable impacts as described in § 1.4.7.1 of the 2006 NPS Management Policies. A separate Statement of Compliance has been completed for Point Reyes National Seashore and San Francisco Maritime National Historic Park. The ATMP does not authorize commercial air tours over Muir Woods National Monument (Muir Woods) and therefore the NPS has not prepared a separate Statement of Compliance for that park. However, the effects of commercial air tour noise on Muir Woods as a result of air tours authorized within the ATMP planning area are documented here. As noted, those effects are similar to those for adjacent areas of Golden Gate National Recreation Area (described in detail below), and therefore similarly do not result in unacceptable impacts or impairment of Park resources.

Sections 1.4.5 and 1.4.6 of Management Policies 2006 further explain impairment. Section 1.4.5 defines impairment as an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Section 1.4.5 goes on to state:

An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or

- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

Section 1.4.6 of Management Policies 2006 identifies the park resources and values that are subject to the no-impairment standard. These include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

NPS non-impairment analysis normally does not include discussion of impacts to visitor experience, socioeconomics, public health and safety, environmental justice, land use, Park operations, wilderness, etc., as these do not constitute impacts to Park resources and values subject to the non impairment standard under the Organic Act. *See Management Policies § 1.4.6.*

Non-Impairment Determination for the Golden Gate National Recreation Area ATMP

The purposes of Golden Gate National Recreation Area, along with Park significance statements and a description of the Park's fundamental resources and values, are described in the *Foundation Document Overview for Golden Gate National Recreation Area* (Foundation Document), 2017.

The purpose of Golden Gate National Recreation Area is to offer national park experiences to all, including a large and diverse urban population, while preserving and interpreting the outstanding natural, historic, scenic, and recreational values of the park lands (Foundation Document, page 8).

The Park's significance statements highlight resources that may be impacted by commercial air tours including Alcatraz Island, outstanding scenic views, and historic values. Many of the fundamental resources and values will not be impacted by commercial air tours. Commercial air tours will not impact Park access and the diversity of settings. Similarly, they do not impact geologic resources, water resources, tides, currents and ocean conditions, but commercial air

tours may impact coastal wildlife, threatened and endangered species, and cultural resources at the Park (*See* Foundation Document, page 6-7). The analysis in this statement excludes 15,000 acres of the North District of Golden Gate National Recreation Area, including all NPS lands north of Bolinas-Fairfax Road. This area of Golden Gate National Recreation Area is managed by Point Reyes National Seashore. Thus, analysis for that area is included in the Statement of Compliance for Point Reyes National Seashore .

As a basis for evaluating the potential for impairment or unacceptable impacts on Park resources, the NPS relied on the environmental analysis in the Environmental Screening Form (ESF) (Appendix B to the Record of Decision (ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), and the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD). The ESF includes analysis of impacts to air quality; biological resources including wildlife, wildlife habitat, and special status species; cultural resources including cultural landscapes, ethnographic resources, prehistoric and historic structures; soundscapes; lightscapes; wilderness; visitor experience; and viewsheds. The ESF considers both the change from current conditions as well the impact from the commercial air tours authorized under the ATMP (*See* ESF, Appendix B to the ROD).

The ATMP would result in limited impacts to the Park's natural and cultural soundscapes. Acoustic conditions in the Park were measured in 2007 and 2008 (Lee & MacDonald, 2011). At locations nearest existing air tour routes, the existing ambient sound level (L_{50})¹ was reported to be 40–55 decibels, while the natural ambient (L_{nat}) was reported to be 30–55 db. These metrics confirm that the natural acoustic environment at these sites sometimes experience disturbances from anthropogenic noise. Many Park areas are adjacent to urban environments where urban noise is common. To determine the severity of the effect and potential for impairment, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. Noise modeling for the ATMP discloses noise exceeding 35 decibels, a level that would mask natural sounds, would not exceed 125 minutes on a peak day, defined as a 90th percentile day. However, this would only occur in a small area of the park and, as with all air tour noise, it would be intermittent throughout the day (*See* ESF, Appendix B to the ROD).

The Tennessee, Gerbode, and Rodeo Valley areas would experience noise above 35 decibels for about an hour on a peak day but would only exceed 52 decibels, the level at which a visitor may reasonably expect interference with park interpretive programs, approximately 10 minutes on a peak day. Most of this area would experience noise above 52 decibels for 5 minutes on a peak day (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD). These lands are predominately natural areas within the Park (National Park Service, 2014). The short duration of noise in these areas is consistent with the uses of these lands.

Some isolated areas in San Mateo County will experience noise above 35 decibels for less than 5 minutes on a peak day but most of the areas south of Fort Funston will not experience noise

¹ Noise metrics referenced in this document are discussed in detail on pages 8–9 and 14–16 of the ESF.

above 35 decibels from commercial air tours over the Park. No areas south of Fort Funston will experience noise that exceed 52 decibels (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD).

The lands within San Francisco City and County will experience the most noise from commercial air tours. Some of these areas will experience noise above 35 decibels for just over two hours on a peak day (125 minutes). This includes areas near the Presidio, Fort Mason, Fort Point, and Lands End. Some areas will experience noise above 52 decibels for up to 25 minutes on a peak day (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD). These Park areas are not natural areas and are in or adjacent to urban environments where noise is common. Human caused sound was audible 84% during daytime hours (7 am – 7 pm) at a nearby acoustic sampling location and sound levels were above 52 decibels 75 – 95% of daytime hours (Lee & MacDonald, 2011). Existing noise from sources other than commercial air tours, such as road traffic, is likely to mask some noise from air tours in these locations. The ESF Noise Technical Analysis indicates similar decibel levels for Alcatraz. The ATMP was revised to include a setback around Alcatraz to provide protections for seabirds. Therefore, the anticipated decibel levels at Alcatraz are expected to be less than depicted in Figures 1, 2 and 4 (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD).

In summary, most of the impacted areas will experience noise at or above 35 decibels less than 20 minutes on a peak day. The maximum noise level is not expected to exceed 52 decibels for more than 25 minutes at any location in the Park on a peak day (ESF, Figures 1. and 2. Noise Technical Analysis, Appendix B to the ROD). Park lands within San Francisco City and County will experience the most noise. Because noise is limited in the more natural areas and noise within the more urban environments is limited to 25 minutes above 52 decibels, and much of the Park will not experience noise from commercial air tours, the natural and cultural soundscapes of the Park remain unimpaired and without unacceptable impacts under the ATMP. The Park's natural and cultural soundscape will be largely unimpacted by commercial air tours and available for the enjoyment by present and future generations with limited interruptions.

ATMP impacts to wildlife occur from noise generated by commercial air tours. The analysis in the ESF discloses that noise would likely be heard by wildlife near the route (*See Appendix B to the ROD*). Generally, noise from commercial air tours may impact wildlife in a number of ways: altered vocal behavior, breeding relocation, changes in vigilance and foraging behavior, predator avoidance, reproductive success, and impacts on individual fitness and the structure of ecological communities to name a few (Shannon et al., 2016; Kunc et al., 2016; Kunc and Schmidt, 2019). To determine the severity of the effect and potential for impairment, the NPS considered not just the presence of noise and potential for disturbance, but also the duration, frequency, and amplitude of noise. As described above commercial air tours would impact most of the Park at levels above 35 decibels for less than 20 minutes on a peak day. The minimum altitude of 1,000 ft above ground level (AGL) limits noise exposure to wildlife in the Park, including the Park's threatened and endangered species. The ATMP includes a 1,500 ft. AGL requirement near Alcatraz for the purpose of limiting noise impacts on seabirds that use the island for roosting. The ATMP also includes a 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine

falcon nests and marine mammal haul outs. The NPS concluded, after discussing the impacts with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, that the commercial air tours authorized by the ATMP will have no effect on threatened and endangered species in the Park² (Section 7 documentation, Appendix E to the ROD). In conclusion, the ATMP will not impair the Park's wildlife or its habitat because the impacts from the commercial air tours do not individually rise above 35 decibels over most of the Park for more than 20 minutes on a peak day and not exceed 125 minutes at any location. As documented through this analysis, and in the ESF, impacts to wildlife, either individually or cumulatively, would occur on an individual level and would not affect wildlife on the population level. These impacts do not impair the functioning of the Park's unique ecosystems and the wildlife within. Consistent with the no adverse effect determination, wildlife, including threatened and endangered species, will persist in the Park without a loss of integrity and visitors will continue to enjoy wildlife and their habitats.

Impacts to the Park's cultural resources would be similar in frequency, amplitude, and duration to those described above for wildlife. The analysis in the ESF evaluated the impacts from commercial air tours on cultural landscapes, ethnographic resources, and historic resources. Because of the number and times commercial air tours occur, and the location of the routes, noise impacts to these resources will be limited. Acting as lead agency for the purposes of compliance with Section 106 of the National Historic Preservation Act with respect to the ATMP, the FAA concluded, in coordination with the NPS, that there would be no adverse effects on historic properties from the 2,548 commercial air tours authorized under the ATMP. The State Historic Preservation Officer concurred with that determination that there would be no adverse effects on historic properties from the 2,548 commercial air tours authorized under the ATMP. The consultation materials documented that the ATMP would not diminish the Park's cultural landscape's integrity of location, design, setting, materials, workmanship, feeling, or association. Additionally, the determination documented that commercial air tours do not adversely affect those elements of ethnographic resources that make them significant to traditionally associated groups, nor does the ATMP interfere with the use of ethnographic resources by these groups. Finally, the analysis documented that the ATMP does not adversely affect the feeling and setting of historic structures that make those sites and structures eligible for listing on the National Register of Historic Properties (*See* Appendices B and F to the ROD). Since there are no adverse effects on these resources and impacts on these resources are limited, these resources would maintain their integrity and purpose and therefore remain unimpaired for the enjoyment of future generations under the ATMP.

As disclosed in the ESF, the ATMP may have very limited impacts on the Park's viewshed or scenic views. The Park's scenic views are a fundamental resource. As noted in the ESF, aircraft are not typically included in viewshed analyses because they are transitory. They are most noticeable because of the noise associated with them. Because of the Park location within and near urban environments, aircraft of all variations are likely commonly seen and expected from most viewing areas. Commercial air tours therefore likely do not detract from viewsheds within

² No effect means there will be no consequences to listed species or critical habitat that result from the proposed action.

the Park. As a result, visitors will continue to be able to enjoy the Park's beautiful views unimpaired.

The NPS completed an air quality analysis and determined that the 2,548 commercial air tours authorized under the ATMP contributes a minimal amount of emissions to the local air quality and would not have a regional impact (*See* ESF, Air Quality Technical Analysis, Appendix B to the ROD). Because the amount of emissions is so small the ATMP does not affect the integrity of the Park's air quality, leaving it unimpaired for future enjoyment.

As demonstrated here and in the analysis referenced above, the impacts to these resources, neither individually nor cumulatively, would preclude the NPS from achieving the purpose of the Park or desired conditions for resources; and would not unreasonably interfere with Park programs or activities, another appropriate use, the overall atmosphere of peace and tranquility or the natural soundscape, or NPS concessioner or contractor operations or services. As a result, there will not be impairment of or unacceptable impacts to the Park's natural and cultural resources or visitor experience. Impacts to other resources potentially affected were considered so small and insignificant that they did not warrant a written analysis here.

The ATMP sections on adaptive management and amending the plan will allow park managers to ensure that unanticipated or unacceptable impacts do not occur and the requirement for implementing flight tracking technologies included in the ATMP will better enable the NPS to monitor and enforce the restrictions in the ATMP.

Non-Impairment Determination for the Muir Woods National Monument

As noted above, the ATMP does not authorize commercial air tours over Muir Woods. However, some noise from commercial air tours within the ATMP planning area will affect Muir Woods. The NPS normally does not prepare non-impairment determinations for actions outside a NPS unit boundary. However, here, out of an abundance of caution, we briefly discuss the ATMP's impact on Muir Woods since establishing the ATMP is an NPS action. The impact of commercial air tours on Muir Woods would be similar to the impacts of commercial air tours on Golden Gate National Recreation Area's adjacent natural areas. Lands within Muir Woods would experience noise above 35 decibels for up to 20 minutes on a peak day. Noise would exceed 52 decibels, the level at which a visitor may reasonably expect interference with park interpretive programs, no more than 5 minutes on a peak day. The analysis above for wildlife, cultural resources, air quality, viewsheds, etc. discusses the impacts of air tour noise and would apply similarly to Muir Woods where the noise is similar in frequency, intensity and duration. Noise from commercial air tours will not result in unacceptable impacts or impairment of any resources at Muir Woods because noise will be of relatively low intensity and infrequent throughout the day.

Compliance with NPS Management Policies Regarding Appropriate Uses

A separate written appropriate use analysis is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider whether commercial air

tours are an appropriate use over the Park, for this ATMP the NPS has decided to briefly address the issue of appropriate use below.

NPS 2006 Management Policies § 1.5 state:

An “appropriate use” is a use that is suitable, proper, or fitting for a particular park, or to a particular location within a park. Not all uses are appropriate or allowable in units of the national park system, and what is appropriate may vary from one park to another and from one location to another within a park.”

Section 8.1.2 of Management Policies further explain:

The fact that a park use may have an impact does not necessarily mean it will be unacceptable or impair park resources or values for the enjoyment of future generations. Impacts may affect park resources or values and still be within the limits of the discretionary authority conferred by the Organic Act. In these situations, the Service will ensure that the impacts are unavoidable and cannot be further mitigated.

In determining whether a use is appropriate, the NPS evaluates:

- consistency with applicable laws, executive orders, regulations, and policies;
- consistency with existing plans for public use and resource management;
- actual and potential effects on park resources and values;
- total costs to the Service;
- whether the public interest will be served.

Parks may allow uses that are appropriate even if some individuals do not favor that particular use. The National Park Air Tour Management Act (NPATMA) contemplates that commercial air tours may be an acceptable use over National Park System units so long as protections are in place to protect park resources from significant impacts of such tours, if any. Therefore, commercial air tours are authorized by law, though not mandated, and generally may be appropriate where they do not result in significant impacts or cause unacceptable impacts on park resources and values.

Golden Gate National Recreation Area ATMP – consistency with NPS Management Policies for Appropriate Uses

The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), the unacceptable impact and non-impairment analysis above, and the language in NPATMA as a basis for finding that the ATMP’s authorization of 2,548 commercial air tours over Golden Gate National Recreation Area is an appropriate use.

- The ATMP for Golden Gate National Recreation Area is consistent with applicable laws, executive orders, regulations, and policies. NPATMA specifically provides that air tours may be allowed over National Park System units where they do not result in significant

impacts. Commercial air tours are not prohibited in applicable laws, regulations, or policies.

- The ATMP's authorization of 2,548 commercial air tours over the Park is consistent with the Park's existing management plans. No existing management plans preclude commercial air tours, though the Park may set different management direction in the future. Mitigations, including limiting the number of commercial air tours per year, restricting commercial air tours to the designated route, and setting minimum altitudes, limit impacts to visitor experience and other resources.
- The effects of the 2,548 commercial air tours authorized in the ATMP on Park resources was evaluated in the materials referenced above and unacceptable impact and non-impairment discussion above. Most areas of the Park will not experience noise at or above 35 decibels from air tours for more than 20 minutes a day. Areas with the most noise will not experience noise that interrupts speech more than 25 minutes a day. The areas most affected by noise are in or near urban environments where commercial air tour noise may be masked by other noise. The commercial air tours are short in duration and occur at decibel levels that do not rise to the level of an unacceptable impact nor impair Park resources. The NPS does not interpret § 8.1.1 to require the NPS to contemplate mitigating Park uses to the point that the use no longer has any impact or no longer can occur. Rather, this section requires the NPS to consider whether there are mitigations that can reduce impacts to Park resources and whether the impacts of those uses, after applying mitigations, result in unacceptable impacts or impairment. In this case, the NPS evaluated the impacts of 2,548 commercial air tours and included specific mitigations in the ATMP to minimize impacts to Park resources. The NPS acknowledges that prohibiting commercial air tours entirely would avoid all impacts to Park resources, but the elimination of commercial air tours is not required to avoid unacceptable impacts or impairment of Park resources. The NPS believes the mitigations in the ATMP are sufficient to protect Park resources and that additional mitigations are not required because the impacts associated with the ATMP are not significant and do not result in unacceptable impacts or impairment.
- The cost to the NPS from implementing the ATMP includes yearly compiling of operator reported commercial air tours and aircraft monitoring data which is done in coordination with the Federal Aviation Administration. These activities would occur anyway, because they are required under NPATMA, regardless of whether the Park has an ATMP because commercial air tours are currently authorized under interim operating authority (IOA). This is done by the NPS's Natural Sounds and Night Skies Division which also provides noise monitoring, modeling, and planning support to parks across the country.
- While some visitors may not like commercial air tours, others appreciate the opportunity to view the Park from a commercial air tour. Commercial air tours, as contemplated in NPATMA, serve the public in this way.

Additional commercial air tours and commercial air tours on other routes may not be appropriate. However, the NPS has determined that because the ATMP authorizes 2,548 commercial air tours over the Park, and because those commercial air tours are restricted to

designated routes, are relatively short in duration, and are at an acceptable altitude, and no air tours are authorized over, or within ½ mile of Muir Woods, the ATMP is adequately protective of Park resources, and the resources of the adjacent Muir Woods, and the commercial air tours authorized by the ATMP are an appropriate use of the Park at this time.

Compliance with NPS Management Policies for Soundscape Management

A separate written compliance analysis for Soundscape Management is not required under NPS 2006 Management Policies. In recognition of comments suggesting that the NPS consider whether the ATMP complies with NPS soundscape policies and guidance, the NPS has opted to briefly discuss the issue with respect to this ATMP.

Management Policies § 4.9 states, “The National Park Service will preserve, to the greatest extent possible, the natural soundscapes of parks.” Section 5.3.1.7 similarly addresses cultural and historic resource sounds.

Section 8.4 specifically addresses overflights, including commercial air tours, which notes

Although there are many legitimate aviation uses, overflights can adversely affect park resources and values and interfere with visitor enjoyment. The Service will take all necessary steps to avoid or mitigate unacceptable impacts from aircraft overflights.

Because the nation’s airspace is managed by the Federal Aviation Administration (FAA), the Service will work constructively and cooperatively with the Federal Aviation Administration and national defense and other agencies to ensure that authorized aviation activities affecting units of the National Park System occur in a safe manner and do not cause unacceptable impacts on park resources and values and visitor experiences.

Director’s Order #47 gives further guidance for the management of natural and cultural soundscapes, requiring the consideration of both the natural and existing ambient levels.

Golden Gate National Recreation Area ATMP – consistency with NPS Management Policies for Soundscape Management.

Consistent with Management Policies § 8.4, the NPS worked constructively and collaboratively with FAA to develop the ATMP. The NPS relied on the mitigations in the ATMP (Appendix A to the ROD), the analysis in the ESF (Appendix B to the ROD), the Section 7 documentation for the Endangered Species Act (Appendix E to the ROD), the Section 106 documentation for the National Historic Preservation Act (Appendix F to the ROD), and the unacceptable impact and non-impairment analysis above as a basis for finding that the ATMP complies with the policies and guidance for management of natural and cultural soundscapes.

Consistent with Management Policies § 4.9, the ATMP eliminates some noise, or moves the Park closer to natural ambient conditions, by limiting commercial air tours to 2,548 per year, which is a reduction from the current authorized number (5,090) under IOA (*See* ATMP, Appendix A to the ROD). In addition, the ATMP limits the operation of commercial air tours to between 9:00 AM until 30 minutes after sunset, establishes designated air tour routes, establishes the minimum altitude that commercial air tours may fly over the Park to no lower than 1,000 ft. AGL for the

entirety of all commercial air tour routes, and includes quiet technology incentives which could further reduce noise. When developing the ATMP, the NPS considered the commercial air tour routes and evaluated the potential for noise to reach the most sensitive resources in the Park, including cultural and natural resources, and areas where commercial air tours could disrupt educational opportunities. The commercial air tours occur along designated routes, which protects most of these areas from the intermittent, and short duration noise effects of commercial air tours.

Management Policies § 5.3.1.7 prohibits excessive noise and § 1.4.7.1 prohibits actions that unreasonably interfere with “the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.” Acoustic conditions in the Park were measured in 2007 and 2008 (Lee & MacDonald, 2011). At locations nearest existing air tour routes, the existing ambient sound level (L_{50}) was reported to be 40–55 decibels, while the natural ambient (L_{nat}) was reported to be 30–55 decibels. These metrics confirm that the natural acoustic environment at these sites sometimes experience disturbances from anthropogenic noise. When determining the severity of the impacts, results from the noise modeling for the ATMP were considered against both the natural soundscape and existing soundscape. As discussed above under the non-impairment discussion, the noise from commercial air tours is limited, both spatially and temporally. Therefore, the noise from commercial air tours is neither excessive nor does it unreasonably interfere with the peace and tranquility of the Park, or natural or historic or commemorative locations. In conclusion, the ATMP complies with § 8.4, § 4.9, and § 5.3.1.7 of the Management Policies because the NPS has successfully collaborated with the FAA and developed an ATMP that will not result in unacceptable impacts to natural or cultural soundscapes or impairment of park resources at Golden Gate National Recreation Area or Muir Woods National Monument.

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APPENDIX H

Summary of Public Comments and Comment
Analysis on the Draft Air Tour Management
Plan for Golden Gate National Recreation Area,
Muir Woods National Monument,
San Francisco Maritime National Historical
Park, and Point Reyes National Seashore

**US Department of Transportation
Federal Aviation Administration**



**US Department of the Interior
National Park Service**



**Golden Gate National Recreation Area
Muir Woods National Monument
San Francisco Maritime National Historical Park
Point Reyes National Seashore**

**Summary of Public Comments and Comment Analysis of the Draft
Air Tour Management Plan**

August 2022

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INTRODUCTION

An Air Tour Management Plan (ATMP) would provide the terms and conditions for commercial air tours conducted over Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (Parks) pursuant to the National Parks Air Tour Management Act (Act) of 2000. The Act requires that the Federal Aviation Administration (FAA) in cooperation with the National Park Service (NPS) (collectively, the agencies) establish an ATMP or voluntary agreement for each National Park System unit for which one or more applications to conduct commercial air tours has been submitted, unless that unit is exempt from this requirement because 50 or fewer commercial air tour operations are conducted over the park on an annual basis, 49 U.S.C. § 40128(a)(5). On March 4, 2021, NPS notified FAA that an ATMP was necessary to protect Muir Woods National Monument resources and values and withdrew the exemption for the park.

The objective of establishing an ATMP for the Parks is to develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tours on natural and cultural resources, visitor experiences and tribal lands.

A notification of the public review period for the draft ATMP was announced in the Federal Register, and the draft ATMP was provided for public review and comment from October 15 through November 15, 2021. In addition, the agencies held a virtual public meeting for the Parks' draft ATMP on October 26, 2021. The draft ATMP was published on the NPS Planning, Environment, and Public Comment (PEPC) website.

Any comments entered into PEPC by members of the general public, as well as any written comments mailed or emailed to the NPS, were considered and included in the overall project record. This *Public Comment Summary Report* provides a summary of the substantive comments submitted during the public comment period.

COMMENT ANALYSIS METHODOLOGY

Comment analysis is a process used to compile and correlate similar comments into a usable format for the agencies' decision-makers and the program team. Comment analysis assists the agencies in organizing, clarifying, and addressing information and aids in identifying the topics and issues to be evaluated and considered throughout the ATMP planning process.

The process includes five main components:

- developing a coding structure
- employing a comment database for comment management
- reviewing and coding of comments
- interpreting and analyzing the comments to identify issues and themes
- preparing a comment summary.

A coding structure was developed to help sort comments into logical groups by topic and issue. The coding structure was designed to capture the content of the comments rather than to restrict or exclude any ideas.

The NPS PEPC database was used to manage the public comments received. The database stores the full text of all correspondence and allows each comment to be coded by topic and category. All comments

were read and analyzed, including those of a technical nature, opinions, suggestions, and comments of a personal or philosophical nature. Under each code, all comments were grouped by similar themes, and those groups were summarized with concern statements.

CONTENT ANALYSIS TABLES

In total, 149 correspondences were received providing 355 comments. The term “correspondence,” as used in this report, refers to each submission offered by a commenter. The term “comment,” as used in this report, refers to an individual issue and/or concern raised by a commenter that the agency coded by topic and category. A single commenter may have raised multiple comments within a correspondence. Similarly, multiple commenters raised many of the same comments. Of the correspondences received, two were identified as form letters, to which there were a combined total of 70 signatories. The form letter with the majority of the signatories expressed opposition to the ATMP and requested the National Park Service and Federal Aviation Administration consider the National Park Overflight Advisory Group (NPOAG) guidance in preparation of the ATMP. This letter also expressed concern about the economic impact to helicopter air tour companies and stated that the limited number of air tours per year would constrain the park experience for the physically disabled. The additional form letter opposed air tours due to their impact on the solace and peace within the Parks.

The following table was produced by the NPS PEPC database and provides information about the numbers and types of comments received, organized by code, including form letters.

Code	Description	Comments	Percentage
ADV100	Adverse Impacts: Soundscape impacts	52	14.6%
ADV200	Adverse Impacts: Wildlife/biological impacts	37	10.4%
ADV300	Adverse Impacts: Endangered species impacts	7	2%
ADV400	Adverse Impacts: Wilderness character impacts	3	0.8%
ADV500	Adverse Impacts: Cultural resource impacts	2	0.6%
ADV510	Adverse impacts: Visual impacts	2	0.6%
ADV520	Adverse Impacts: Equity	12	3.4%
ADV530	Adverse Impacts: Climate change / greenhouse gases / air quality	22	6.2%
ADV600	Adverse Impacts: Other	8	2%
ELE100	ATMP Elements: Annual number of air tours	15	4%
ELE200	ATMP Elements: Routes and altitudes	25	7%
ELE300	ATMP Elements: Aircraft type	2	0.6%
ELE400	ATMP Elements: Day/time	2	0.6%
ELE500	ATMP Elements: Other	38	10.7%
FAV100	Benefits of air tours	0	0%
NS100	Non-substantive comment: Support air tours	3	0.8%
NS150	Non-substantive comment: Other	0	0%
NS200	Non-substantive comment: Oppose air tours continuing	14	4%
NS300	Non-substantive comment: Oppose air tours introduction	30	8.5%
PRO100	Process Comments: Impact analysis	20	5.6%
PRO200	Process Comments: Public review	3	0.8%
PRO300	Process Comments: Alternatives considered	20	5.6%
PRO400	Process Comments: Other	4	1%
PRO500	Process Comments: NEPA	33	9.3%
TRIBE	Tribal concerns	1	0.3%

SUMMARY OF COMMENTS

The following text summarizes the comments received during the comment period and is organized by code. The summarized text is formatted into concern statements to identify the thematic issues or concerns represented by comments within the code. The focus on coding comments is on those comments with substantive content. Substantive comments raise, debate, or question a point of fact, or analysis of the impacts associated with the ATMP, or elements of the ATMP. Comments that merely support or oppose the ATMP are not considered substantive.

ADV100 Adverse Impacts: Soundscape Impacts

1. Commenters noted concern that air tours would impact soundscapes and the solitude and natural sounds in the Parks. One commenter asked if a schedule would be published in advance of air tours in order to plan visits to avoid noise from air tours. Other commenters noted concern about the cumulative effect of air tours and traffic from other visitors. One commenter noted that the NPS should be conducting acoustic monitoring beyond the sunrise and sunset time frames in accordance with NPS management policies, to ensure no adverse impacts occur to soundscapes and other park resources.
2. One commenter requested that the record of decision (ROD) list all noise and visitor experience studies at Muir Woods and compare park acoustic conditions with all visitor noise intrusions including air tours.
3. Commenters stated that Congress developed the Act out of concern that noise from air tours could harm national park resources, values, and experiences for visitors. Commenters also noted air tours would violate Director's Order #47 and NPS Management Policy, Chapter 4.9 which states that the NPS will preserve, to the greatest extent possible, the natural soundscapes of parks. One commenter requested air tours be prohibited with exceptions for emergencies, and at Parks whose interpretation includes aviation; for example, air shows at Crissy Field in the Golden Gate National Recreation Area.
4. One commenter referenced that the NPS Natural Sounds Program has a strong reputation for its technical capability to collect acoustic data in the field and to prepare credible scientific analysis of noise impacts. The commenter referenced https://www.nps.gov/subjects/sound/acousticmonitoring_reports.htm.
5. One commenter stated that the objective of an ATMP would be to improve resource conditions by reducing the ambient level of air tour noise, especially in areas managed as wilderness. The commenter provided the following references:
<https://www.science.org/doi/full/10.1126/science.aah4783>; A synthesis of two decades of research documenting the effects of noise on wildlife; Graeme Shannon et al; 26 June 2015.
<https://onlinelibrary.wiley.com/doi/10.1111/brv.12207>;
https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_91-36D.pdf.
6. One commenter referenced the adverse impacts of aircraft overflight noise on park resources and values contained in the 1994 Report to Congress on Effects of Aircraft Overflights on the National Park System ([https://www.nonoise.org/library/npreport/intro.htm#TABLE OF CONTENTS](https://www.nonoise.org/library/npreport/intro.htm#TABLE_OF_CONTENTS)).
7. One commenter stated that Parks should consistently be considered as noise sensitive areas as described in FAA Advisory Circular (AC) No. 91-36D and that the voluntary compliance

recommendations under the AC should be a requirement for ATMPs. The commenter also referenced FAA Order 1050.1F.

8. Commenters noted concern regarding noise from air tours that fly over residential areas. One commenter representing a community of 60 residential units on Richardson Bay stated that the community is located where tours embark and noise from the existing air tours causes negative impacts to their community.

ADV200 Adverse Impacts: Wildlife/Biological Impacts

1. Commenters noted that while the draft ATMP mentions the prohibition of air tours two hours after sunrise and two hours before sunset due to effects on wildlife species and visitors, there is no further investigation, study or monitoring of wildlife behavior at other times of the day. The commenter stated that this omission of information violates the fundamental laws and policies governing NPS units.
2. One commenter noted that the flight paths will exclude the central and northern portions of the recently established Ranchland zone and the northern portion of the Phillip Burton Wilderness Area, and that while the flight paths will avoid harbor seal haul outs at Duxbury Reef, Double Point, and Drakes Estero Marine Wilderness area, there are other sites within the Seashore and other species that may be adversely affected by the overflight noise, including elephant seal colonies located in Drake Bay. The commenter also noted that the seashore is located along the Pacific flyway and other important migratory routes for numerous marine mammals and that due to potential impacts should be analyzed and provided to the public for review.
3. One commenter asked how pilots will know where nesting bird colonies, falcon nests, or marine mammal haul outs are located. The commenter suggested the ATMP include provisions to identify sensitive habitat sites so pilots clearly understand where these sensitive locations are.
4. One commenter noted that birds cross the Golden Gate channel during spring and fall migration and that the draft ATMP does not consider the potential impacts to raptors and other birds that cross the channel between Marin and San Francisco Counties. The commenter noted that according to BirdNote (birdnote.org), birds usually fly relatively low, under 500 ft., yet during migration, birds fly at higher altitudes with many species flying at 2,000 to 5,000 ft. or higher, using prevailing winds to assist them. The commenter requested that routes over the channel and elsewhere throughout the Parks be at sufficient altitudes to avoid any chance of impacting migrating birds.
5. Many commenters expressed general concern about the impacts of air tour noise on wildlife. Commenters noted the protection of intertidal invertebrates and fishes, pinnipeds, seabirds, shorebirds, and dune plants, among other species is important given other impacts and threats to these species.
6. One commenter noted their direct observation of a decline in the bird population near Richardson Bay Bridge and referenced air tours as the cause. The commenter also noted that planes taking off from Manzanita are disturbing birds.
7. One commentor provided the following references related to wildlife disturbances from aircrafts: Airborne Hunting Act (November 18, 1971, as amended 1972): Department of the Interior, US Fish and Wildlife Service United States, Title 16, Chapter 9, Section 742j-1, National Marine Sanctuaries Act (October 23, 1972, as amended 2000): Office of National Marine Sanctuaries, Title 16, Chapter 32, § 1436; Regulations of Greater Farallones National Marine Sanctuary, National Oceanic and Atmospheric Administration (NOAA), Office of National Marine Sanctuaries, 15 CFR Subpart H 922.82; and Regulations of the Monterey Bay National Marine

Sanctuary National Oceanic and Atmospheric Administration (NOAA), 15 CFR Subpart M § 922.132, § 922.84(5).

8. One commenter that recommended a 2,000 ft. above ground level (AGL) requirement over sanctuaries provided justification related to the thirty-six (36) marine mammals observed at the Greater Farallones National Marine Sanctuary (GFNMS), noting that many of these mammals occur in large concentrations and rely on the habitats for breeding, pupping, hauling out, feeding, and resting during migration. The commenter noted that circling or multiple passes can be more disturbing to whales than a single pass and that seals and sea lions can be frightened into the water causing stress and juvenile mortality if there is a stampede. The commenter also noted aircraft disturbances to seabird colonies have not changed significantly in monitored locations since monitoring began in 2005 and provided the following reference: Bednar et al. 2020. This commenter suggested a minimum 2,000 ft. AGL above areas within the national marine sanctuaries as a recovery method for seabirds.

ADV300 Adverse Impacts: Endangered Species Impacts

1. Commenters noted the Parks are host to threatened and endangered species including: northern spotted owl, snowy plover, coho salmon, California red-legged frog, steelhead trout, San Francisco garter snake, southern sea otter, Guadalupe fur seal, sei whale, blue whale, fin whale, marbled murrelet, California least tern, San Bruno elfin butterfly, mission blue butterfly, bay checkerspot butterfly and others.
2. Commenters requested an assessment and disclosure of potential and probable impacts to wildlife, referencing the Endangered Species Act of 1973 (ESA). The commenters also noted that the agencies have initiated informal consultation with the United States Fish and Wildlife Service (USFWS) and that the draft ATMP should not be approved until consultation is complete.

ADV400 Adverse Impacts: Wilderness Character Impacts

1. Commenters noted that commercial air tours negatively affect wilderness character and the draft ATMP does not acknowledge compliance with the Wilderness Act. One commenter noted that the Phillip Burton Wilderness provides access to opportunities for solitude and inspired recreation adjacent to a large urban area. Commenters referenced various sources: U.S. C. 1131-1136, sec. 3c; 1964; <https://www.science.org/doi/full/10.1126/science.aah4783>; <https://doi.org/10.5849/jof.14-135>, A Framework to Assess the Effects of Commercial Air Tour Noise on Wilderness; Landres et al. 2008, (p. 7- 8); Watson et al. 2015; Barber et al. 2010; NPS 2006; Marin et al. 2011; Miller 2008, Lynch et al. 2011; Mace et al. 2013, Rapoza et al. 2014; <https://www.nps.gov/pore/learn/management/wildernessact.htm>.

ADV500 Adverse Impacts: Cultural Resource Impacts

1. Commenters noted the draft ATMP provides no information regarding compliance with Section 106 of the National Historic Preservation Act (NHPA) and lacks necessary consultation with potentially affected Native American tribes and should not be signed by the NPS until consultation is complete. Referring to the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations and the agencies' NEPA policies, NHPA compliance, and other applicable federal statutes, one commenter stated these should be integrated into the NEPA document prepared for the proposed action, and failing to do so violates NEPA process requirements.

ADV510 Adverse Impacts: Visual Impacts

1. Several commenters noted general concern that air tours would cause visual disruption.

ADV520 Adverse Impacts: Equity

1. Commenters noted equity considerations, stating the cost of the tours is prohibitive.

ADV530 Adverse Impacts: Climate Change, Greenhouse Gasses, and Air Quality

1. Commenters noted that air tours adversely affect air quality and climate change. One commenter noted that the draft ATMP does not include an analysis of greenhouse gas emissions. Commenters noted air pollutants absorb more incoming energy than what is radiated back to space, causing Earth's atmosphere to warm according to National Geographic 2021.

ADV600 Adverse Impacts: Other

1. One commenter noted that limiting flights over the Parks discriminates against those who might not have the time, resources, or physical ability to see the park any other way including the elderly, young, handicapped, and others.
2. One commenter noted that the NPS did not coordinate with air tour operators or consider the economic impacts that would result from restricting air tours.
3. One commenter stated that the NPS is required to protect natural and cultural resources and visitor experiences of those resources ahead of uses and activities that could negatively impact them, and as an example pointed to the Point Reyes Foundation Document which describes fundamental resources and values that should receive primary consideration in planning processes. One commenter stated that the ATMP should focus on restoring and protecting natural sounds, a resource the NPS is mandated to protect.

ELE100 ATMP Elements: Annual Number of Air Tours

1. Commenters noted a reduction in total air tours is the only way to reduce impacts, suggesting the total number of flights should be eliminated or limited to one per day.
2. One commenter noted that the annual number of flights reduces the total number of flights available to an air tour operator by 50% and the economic impact has not been evaluated. The commenter noted the restrictions also limit growth opportunities and the ability to invest in technology that could reduce noise.
3. One commenter noted the draft ATMP does not consider fluctuations in the market when deciding the total number of annual air tours.

ELE200 ATMP Elements: Routes and Altitudes

1. One commenter noted there was no consideration of different routes and that sensitive areas such as Point Reyes Headlands have shoreline cliffs as high as 600 ft. and a plane flying lateral to these cliffs at 1,500 ft. AGL would have impacts comparable to a flight at 900 ft. AGL. The commenter also noted the fluctuating altitude of 1,500 ft. to 2,000 ft. is a safety concern and should be maintained at 2,000 ft. The commenter referenced the Organic Act and the NPS responsibilities to conserve resources and values. The commenter also noted that flights over the Phillip Burton Wilderness are unnecessary because views of the ridgeline can be provided by crossing south of Stinson Beach to avoid both the Wilderness area and Bolinas Lagoon. The

commenter also noted the route that flies over the Point Reyes National Seashore Ranch dairy complex should be modified to avoid impacts to the dairies.

2. One commenter suggested air tour routes be adjusted 1-mile south of Tam Valley in order to avoid flying over homes.
3. One commenter noted that one air tour operator currently advertises a tour that includes a flight over Muir Woods National Monument. The commenter noted that Flight Aware tracking data (<https://flightaware.com>) also identifies that flights have occurred over Muir Woods National Monument during the past year.
4. One commenter suggested that in order to allow passengers on both sides of the aircraft to see the same or similar views during a tour, the pilot could turn around and safely fly back on the same route. Based on this justification, the commenter requested the route at Point Reyes stay over the ocean and not over land in order to reduce impacts.
5. Commenters suggested various minimum altitudes including: 1/2 mile offshore at 2,000 ft.; 2,500 ft.; and 5,000 ft.
6. One commenter offered revisions to the routes in order to avoid all sensitive habitat at the point thereby reducing impacts to harbor seals and nesting seabirds and reduce noise impacts to the Phillip Burton Wilderness Area. The commenter's suggested revisions include: removing segment 6 to 7 to avoid crossing the point and to keep the flight path offshore; reroute segment 6 directly south to rejoin segment 8; remove segment 5 and re-direct segment 3 and 4 at Bolinas Ridge to go directly south to pick up at segment 10 on the southeast edge of the route.
7. Referencing the Federal Aviation Regulation (FAR) Part 91.119, one commenter noted that the route maps provided in the draft ATMP indicate that helicopters will frequently fly over much of the Presidio and that because Hawk Hill is 923 ft. tall and the Golden Gate Bridge towers are 746 ft. tall (and the Salesforce Tower is 1,070 ft. tall), helicopters flying at 1,000 ft. would be close to park visitors on the ground. The commenter requested the draft ATMP require air tours to fly higher than the 1,000 ft. minimum required over urban areas.
8. One commenter noted that the requirement for aircraft to fly above 1,500 ft. over certain areas would require entry into Class B airspace and that it's unreasonable for air tour operators to request Class B clearances several times a day for a 3-5 minute transition.
9. One commenter noted the higher altitude requirement for fixed-wing aircrafts in the draft ATMP provides helicopter operators with a competitive advantage. The commenter noted that seaplanes, especially the DHC-2, are designed to safely land in any water conditions; seaplanes are safer than helicopters in the case of an in-flight emergency at any altitude; and should not be treated differently than helicopters in terms of allowed altitudes. The commenter also noted that helicopters are slower and FAA does not require different altitudes for seaplanes and helicopters. The commenter also noted the Jet Ranger (407) actually flies faster than the DHC-2 in cruise and that seaplanes are allowed to fly at altitudes below 500 ft. The commenter stated that there are no FARs that designate different altitudes for seaplanes and helicopters in terms of providing separation and the same regulations apply to all aircraft when flying visual flight rules (VFR) in the Bay Area as these aircraft are required to provide visual separation from each other under current FAR.
10. One commenter asked why the draft ATMP includes lateral avoidance of 2,000 ft. for dairy ranches and only 1,000 ft. for nesting birds and marine mammals. The commenter requested the lateral avoidance should provide consistent and adequate protection from disturbance to natural resources and to visitor experience, citing studies that support a 1,000 ft. buffer prevents flushing,

with greater distance to prevent all forms of disturbance. The commenter requested a 2,000 ft. lateral avoidance requirement to prevent disturbance to sensitive habitat areas noting it would provide more consistent protection of resources and visitor experience.

11. One commenter suggested the ATMP cite concerns related to disturbing marine wildlife in the sanctuary as justification for commercial tours to maintain 2,000 ft. AGL above sanctuaries and 1,000 ft. lateral avoidance of Stormy Stack and Point Resistance. This commenter suggested ATMP flight paths be plotted on NOAA nautical charts as well as Google Earth to ensure latitudes/longitudes and NOAA Regulated Overflight Zones (NROZs) are shared with air tour operators. This commenter also suggested the NPS and FAA ensure pilots adhere to the San Francisco VFR Sectional chart that recommends 2,000 ft. AGL as best management practices in addition to the required 1,000 ft AGL in NROZs.

ELE300 ATMP Elements: Aircraft Type

1. Several commenters recommended that Section 3.8 of each draft ATMP include a definition or reference to FAA guidance defining quiet technology aircraft as described in FAA Advisory Circular AC-93-2. See https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC-93-2.pdf.

ELE400 ATMP Elements: Day/Time

1. One commenter requested air tours be restricted to the hours of 12:00 PM to 5:00 PM, noting the best opportunities for most wildlife viewing and organized wildlife viewing trips occur between 7:00 AM and 12:00 PM, specifically during the months when migration occurs for hawks.

ELE500 ATMP Elements: Other

1. Commenters noted the draft ATMP does not include any details on overlapping jurisdictional authorities from the State of California, tribes, USFWS, the NROZs, FAA airspace restrictions; and the National Marine Sanctuaries, noting this prevents public understanding of the potential negative impacts of the draft ATMP. The commenters referenced the flight path over Mount Tamalpais State Park as an example that also travels over California State Marine Protected Areas; the Greater Farallones National Marine Sanctuary; public recreational beaches including Bolinas, Drakes, and Stinson Beaches; and the communities of Bolinas, and Stinson Beach. One commenter requested a release of a draft ATMP with comments, letters, and reports by other jurisdictions and agencies to inform the planning process. Another commenter recommended that Stormy Stack and Point Resistance are included in the ATMP maps to ensure that the routes maintain at least 1,000 ft. lateral avoidance at both locations.
2. One commenter referencing FAA Order 2150.3, asked why the quarterly reporting requirement is now every 6 months and if the reports and flight monitoring data will be fully available to public for review without a Freedom of Information Act (FOIA) request. The commenter also asked who would be responsible for identifying and reporting violations and requested contact information be easily available online for citizens to report violations. The commenter noted that most citizens are not familiar with the process to contact Oakland Flight Standards District Offices (FSDO) and that staffing considerations should be addressed if the NPS would be responsible for reporting violations. The commenter also noted real-time monitoring should be established during the first year of the ATMP to address ongoing issues with current air tour operators.

3. One commenter asked who would pay for the cost of the environmental analysis in the draft ATMP and noted it should fall to the air tour operators. Another commenter asked if air tour operators are required to pay an entrance fee.
4. One commenter stated that one of the primary findings from the Government Accountability Office (GAO) was that the FAA and the NPS lack a mechanism to verify the number of air tours conducted over national parks, both historically and under interim operating authority. The commenter asked why the GAO's recommendation that a monitoring program be implemented as an integral part of any ATMP was not included in the draft ATMP.
5. One commenter stated that the adaptive management section of the draft ATMP is vague and asked if there would be a pre-defined and systematic adaptive management program with indicators, desired future conditions, periodic review time frames, or other metrics that would trigger an NPS review to determine if changes are needed to the ATMP, as is commonly done with many adaptive management programs, and if so, what are those indicators or metrics. Other commenters had recommendations for adaptive management including: 1) that it not be authorized in the event it would increase the number of air tours, decrease minimum altitude or other mitigation requirements, or otherwise increase noise emission or other negative impacts on the natural habitat and visitor experience; 2) that any proposed modifications under adaptive management be fully noticed to the public for advance comment; 3) that adaptive management be adequately described in an appropriate level NEPA document; 4) that NPS have volunteers monitor aircraft flight patterns and noise, and that implementation of this draft ATMP should include an adaptive management process with operators, agency staff, scientists, and citizens; and 5) the NPS and the FAA should monitor new technology that may further reduce the noise from aircraft and its ability to meet Parks' needs, and as a part of adaptive management, NPS should require the most current noise reducing equipment and practices for permitting use by a specific type of aircraft.
6. One commenter noted that Section 6 of the draft ATMP, regarding New Entrants, seems to leave open the possibility of additional flights above the annual cap stated in Section 3.1 of the draft ATMP if or when new entrants are involved. To address this concern, the commenter requested that Section 6 of the draft ATMP be clarified to say that while the allotment of annual flights may be redistributed from existing operator(s) to accommodate new entrants, the cap on the total number of annual flights will remain the same as stated in Section 3.1 of the plan.
7. One commenter suggested that staff at the park where the air tours would take place provide the training referenced in Section 3.7(A) of the draft ATMP.
8. In addition to ensuring that the Parks provide annual pilot training, commenters recommended that NPS require air tour operators to provide air tour passengers with an educational brochure or rack card (e.g., jointly prepared by the FAA and NPS) that informs the public they will be flying over a noise sensitive area, which may include wildlife habitat, wilderness areas and cultural sites; and that special restrictions (such as AGL requirements) are in effect to minimize the adverse impacts of aircraft noise on the environment below.
9. One commenter recommended that the ATMP planning and compliance process be managed directly by a NEPA project manager at the NPS Environmental Quality Division (EQD).
10. One commenter stated that administration of the ATMP should not put a financial burden on the NPS and should provide for adequate funding to cover all NPS administrative expenses.

11. One commenter suggested that the draft ATMP should include the precautionary principle, in which lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
12. One commenter noted the draft ATMP does not consider the potential for designating some days of the week as no-fly days which could enhance and ensure a better quality visitor experience. Another commenter suggested flights be restricted to once a day on the weekends.
13. One commenter noted that air tours have safely used 124.3 (Golden Gate Traffic) as a CTAF to deconflict and successfully manage collision avoidance for decades. The commenter stated that utilizing a different frequency from other low-level Bay Area air traffic creates a safety concern and suggested a common frequency should be used.
14. One commenter requested the draft ATMP include a provision that prohibits hovering in place.
15. One commenter recommended the review and inclusion of the following reference in lines 274-276 (Section 4.0 Justification for Measures Taken) of the ATMP for justification for the 1,000 ft. altitude requirements: Fuller, A. R., G.J. McChesney, and R.T. Golightly. 2018. Aircraft disturbance to Common Murres (*Uria aalge*) at a breeding colony in central California, USA. *Waterbirds* 41:257-267. This commenter also referred to data compiled by GFNMS that included low overflight incident reporting data from 2005-2007 which indicated disturbance to seabirds.

FAV100 Benefits of Air Tours

1. No comments were submitted that noted benefits of air tours.

PRO100 Process Comments: Impact Analysis

1. One commenter requested that all planning documents explain why, through 2017, Muir Woods National Monument air tours were reported in the hundreds every year during peak quarters and then the reporting went down to zero air tours. The commenter also requested information regarding how reports were audited for Muir Woods asking what error occurred to disclose there were no air tours and from which air tour company is the information based on. The commenter also asked how the reported numbers were analyzed by the agencies and what written correspondences and meetings established the correct figure of zero.
2. One commenter noted that the draft ATMP includes a high-level environmental summary of the seashore, but fails to include analysis on negative impacts from noise disturbances to species or impacts to recreational and visitor experiences for public review. The commenter stated that the draft ATMP fails to explore impacts from additional overflight tours that may be allowed in the future that could expand air traffic and change flight paths. The commenter asked if the public will be able to participate in the adaptive management changes that would take place in the future.
3. Commenters noted there was a lack of analysis and justification to allow air tours and that the agencies failed to demonstrate they have applied measurements of the acoustics, carried out sound studies, evaluated impacts on park resources, or conducted thorough tribal consultation.
4. One commenter noted that the draft ATMP does not include metrics to illustrate whether the three year average is an appropriate measure to determine the number of flights as it does not consider the actual carrying capacity for noise at these Parks. The commenter also noted that any reduction in the number of air tours should center on resource protection and be justified by sound studies and modeling, referencing NPS Management Policies at 8.2.1.

5. One commenter noted an existing flight track traverses residential neighborhoods in Tamalpais Valley and nearby neighborhoods in Southern Marin. The commenter asked if the impact on residential neighborhoods and safety concerns were considered in the development of the draft ATMP and if not, why. Another commenter noted 40 CFR Section 1508.8 and the requirement to address indirect effects outside the ½-mile ATMP boundary as they pertain to impacts to residences.
6. One commenter asked if a visitor poll was conducted at the Parks, similar to the poll done early in the ATMP process for Hawai'i Volcanoes National Park. The commenter asked if a poll was conducted, what were the results, or if not, why a poll was not conducted.
7. One commenter noted the draft ATMP should include a valid baseline and incorporate considerations from the U.S. Circuit Court of Appeals in the case of United States Air Tour Association v. FAA, 298F.3d997, which states that ATMPs must also consider impacts from non-tour aircraft.
8. Commenters stated that NPS should prepare an appropriate use analysis in accordance with NPS Management Policies 2006, Sections 1.5 and 8.1.2, which serves as the basis for determining whether air tours should be allowed or prohibited.

PRO200 Process comments: Public Review

1. One commenter noted that in public meetings, the agencies stated the NEPA pathway as a categorical exclusion (CE) that could be reconsidered based on public comment, placing the burden squarely on the public to identify potential impacts absent site specific analysis and scientific data as well as information from tribal and USFWS consultation.
2. One commenter noted that based on the level of public interest in the draft ATMP, the initial analysis, which is not fully publicly available, should be transparent to assist with better understanding if there is potential for adverse impacts to recreational, scenic, wilderness, and cultural resources.

PRO300 Process Comments: Alternatives Considered

1. Commenters noted that the agencies did not consider or evaluate reasonable alternatives and that the decision was predetermined. Commenters suggested a range alternatives including a no air tour alternative; decrease air tours over time; drone footage alternative; reduction of air tours through attrition; phased reduction by 10% every 3 years; and a phased reduction by 40% every 4 years.

PRO400 Process Comments: Other

1. One commenter noted the agencies ignored The National Parks Overflight Advisory Group (NPOAG), a rulemaking committee put in place by Congress to provide advice, information, and recommendations to the agencies in the implementation of the National Parks Air Tour Management Act of 2000. The commenter noted that excluding NPOAG in the ATMP process is negligent and violates the NPOAG Order.

PRO500 Process Comments: NEPA

1. Commenters noted that the NPS issued proposed actions under the draft ATMPs for public comment without disclosing the environmental impacts of that action as required under NEPA and related FAA and NPS NEPA policies. One commenter referred to 40 CFR 1501.2(b)(2)

noting Federal agencies are required to disclose impacts. Commenters also referenced <https://www.law.cornell.edu/cfr/text/40/1501.2>; requirements in FAA's NEPA policies in Order 1050.1F at https://www.faa.gov/documentLibrary/media/Order/FAA_Order_1050_1F.pdf and, NPS NEPA policies in its NEPA Handbook 2015, Section 1.4.A (https://www.nps.gov/subjects/nepa/upload/NPS_NEPAHandbook_Final_508.pdf).

2. Several commenters noted that an environmental impact statement (EIS) should be completed in accordance with Public Law 106-181. Commenters noted the use of a categorical exclusion does not allow sufficient analysis of impacts and mitigation measures. Another commenter noted that the draft ATMP does not comply with NEPA, that no decision document is available for public review concurrent with the draft ATMP, and pointed out the following from the court decision that prompted this ATMP planning process: Management plans must go through notice and comment and comply with NEPA (https://www.peer.org/wp-content/uploads/2020/05/5_1_20-Court-Decision-Overflights.pdf).
3. Commenters noted various shortcomings in the NEPA process including: A) the agencies have issued a proposed action for public comment without disclosing potential impacts or providing any environmental impact analysis regarding that proposed action; B) the agencies have failed to conduct public scoping or otherwise consider reasonable alternatives to the proposed action; C) the NPS has not made the case that its proposed action will effectively mitigate the adverse impacts of ongoing air tours at the Parks that have been operating virtually unregulated over the past 20 years; D) the agencies stated intention is to finalize the action (i.e., the ATMP) before actually issuing a NEPA analysis which violates NEPA procedural requirements; and E) the agencies have improperly identified NPS categorical exclusion 3.3 A1 as the preliminary NEPA pathway for this draft ATMP since NPS has not conducted a NEPA review and never formally approved national park air tours in the first place.
4. One commenter cited CEQ regulation 40 CFR 1502.25 noting the draft ATMP process should be integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the NHPA (16 U.S.C. 470 et seq.), the ESA (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

TRIBE Tribal Concerns

1. One commenter noted there was a lack of tribal consultation in the draft ATMP and no indication which tribes contributed. The commenter noted the draft ATMP should acknowledge the cultural and historical significance of areas in these Parks. The commenter noted that as a result of the insufficient language regarding how this draft ATMP will respect American Indian sacred sites and ceremonial activities, the NPS should conduct additional analysis of these cultural sites and include additional tribal consultation.

NS100 Non-Substantive Comment: Support Air Tours

1. One commenter noted that air tours do not require visitor services and are less of a detriment to ground based visitors.

NS150 Non-Substantive Comment: Other

1. Commenters expressed opposition to air tours continuing at the Parks and cited to concerns about wildlife impacts, cultural resource impacts, climate change, and impacts to visitor experience.

NS200 Non-Substantive Comment: Oppose Air Tours Continuing

1. No commenters expressed non-substantive opposition to the continuation of air tours.

NS300 Non-Substantive Comment: Oppose Air Tours Introduction

1. Many commenters opposed the introduction of air tours where the stated concerns included impacts to cultural resources, wilderness, and noise impacts. Commenters referenced a 2002 NPS publication "Wild Soundscapes in the National Parks: An Educational Program Guide to Listening and Recording."

APPENDIX I

Coastal Zone Management Act: Compliance Documentation



United States Department of the Interior
NATIONAL PARK SERVICE



U.S. Department
of Transportation
**Federal Aviation
Administration**

United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

August 15, 2022

Larry Goldzband
Executive Director
San Francisco Bay Conservation and Development Commission
375 Beale St., Suite 510
San Francisco, CA 94105

RE: Consistency Determination for Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Dear Mr. Goldzband:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS) (collectively, the agencies), is developing an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks). The agencies are preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws.

In accordance with Section 307c(1) of the Federal Coastal Zone Management Act of 1972, as amended, the NPS has evaluated the proposed project and determined that it is consistent to the maximum extent practicable with the California Coastal Management Program. This request is submitted in compliance with 15 CFR Section 930.34 et seq. of the National Oceanic and Atmospheric Administration (NOAA) Federal Consistency Regulations (15 CFR 930). We respectfully request that the San Francisco Bay Conservation and Development Commission concur with our consistency determination.

Project Description

The ATMP would provide the terms and conditions for commercial air tours conducted over the Parks pursuant to NPATMA. The ATMP would apply to commercial air tours flying below 5,000 feet (ft.) above ground level (AGL) over the Parks, within 1/2-mile outside the Parks' boundaries, and over tribal lands within or abutting the Parks (Figure 1). The objective of the ATMP is to develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tours on natural and cultural resources, visitor experiences, and tribal lands.

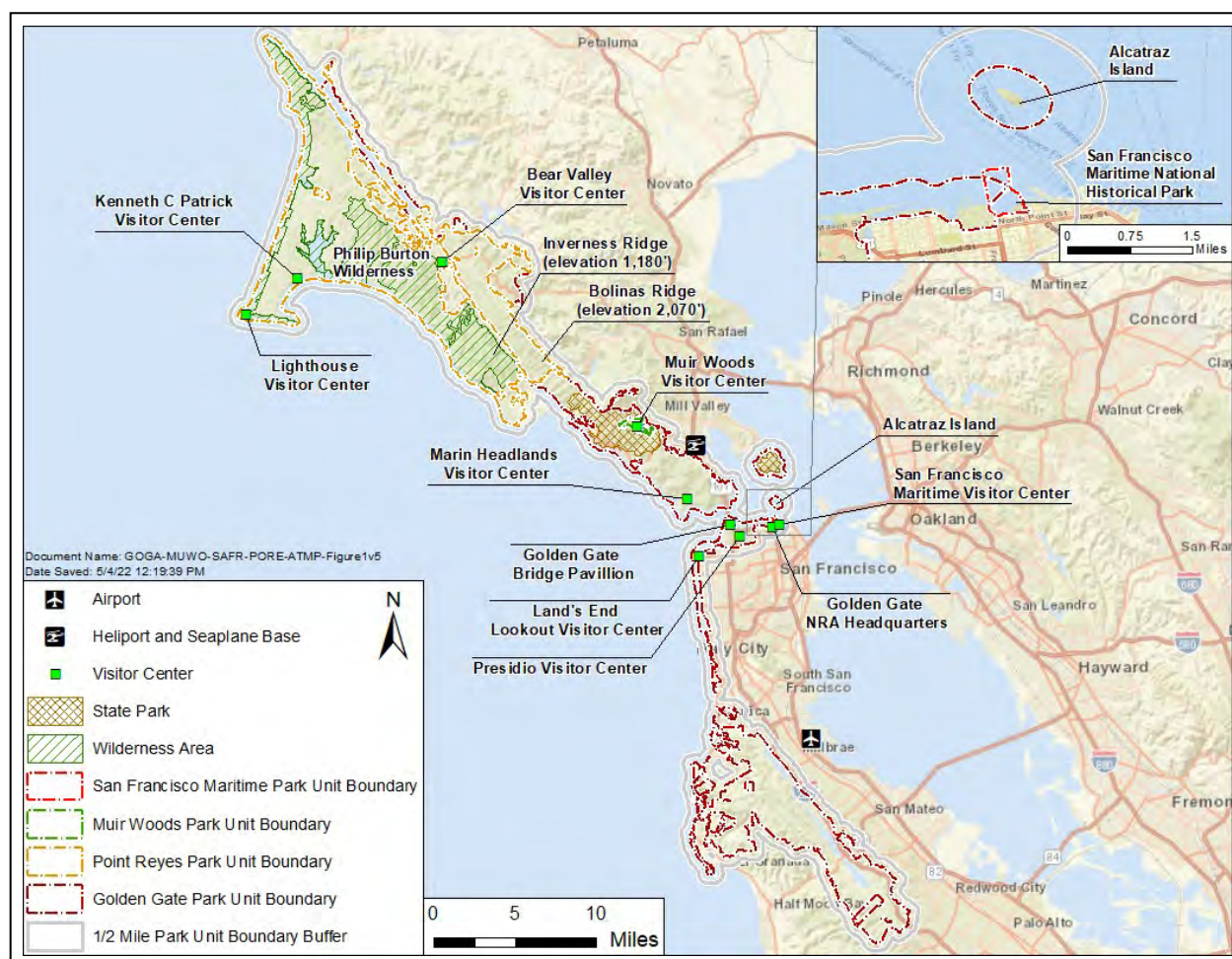


Figure 1. Map of area subject to the proposed ATMP for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore.

When Congress passed NPATMA in 2000, the law required operators who wished to conduct commercial air tours over national parks to apply to the FAA for authority to conduct such tours. NPATMA provided for existing commercial air tour operations occurring at the time the law was enacted to continue until an ATMP for the Parks was implemented by expressly requiring the FAA to grant interim operating authority (IOA) to existing operators, authorizing them to conduct, on an annual basis, “the greater of (i) the number of flights used by the operator to provide the commercial air tour operations within the 12-month period prior to the date of the enactment of the act, or (ii) the average number of flights per 12-month period used by the operator to provide such operations within the 36-month period prior to such date of enactment, and, for seasonal operations, the number of flights so used during the season or seasons covered by that 12-month period.” Under NPATMA, the FAA granted IOA for commercial air tours over the Parks.

Currently, two commercial air tour operators hold IOA to conduct a combined total of 5,090 commercial air tours over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, Muir Woods National Monument, and Point Reyes National Seashore each year. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for commercial air tours other than an annual limit.

Under the ATMP, the IOA would be terminated and 2,548 commercial air tours per year would be authorized, which consists of 2,405 commercial air tours for routes that go over Golden Gate National

Recreation Area and San Francisco Maritime National Historical Park, and 143 commercial air tours for a route that goes over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The total number of commercial air tours authorized under the ATMP would be consistent with the existing commercial air tours reported over the Parks. It is based on the 3-year average of the total commercial air tours reported in 2017, 2018 and 2019. The annual flight limits in this ATMP are intended to protect visitor experience, wildlife, and wilderness areas throughout the Parks by limiting the number of potential disturbances caused by commercial air tours.

Commercial air tours over Point Reyes would only be conducted using fixed-wing aircraft; no helicopter air tours would be authorized. No commercial air tours would be authorized over, or within a ½ mile of the boundary of, Muir Woods.

Commercial air tours authorized under this ATMP would be conducted on the routes and altitudes in Figures 2 through 5 in Attachment A. Due to the location and proximity of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park (the two parks share a boundary), an air tour route authorized by this ATMP passes over both parks. The only authorized commercial air tour route that would pass over Point Reyes National Seashore would also pass over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

Under the proposed ATMP, commercial air tours conducted with fixed-wing aircraft would fly no lower than 1,000 to 2,500 ft. AGL, depending on the location. The ATMP would establish a minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Golden Gate National Recreation Area, depending on location over the park, except that 1,000 ft. AGL would be permitted within the ATMP boundary around Angel Island State Park (see Figures 2 and 4), where existing operations fly as low as 1,000 ft AGL depending on location. The ATMP would establish a minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Point Reyes National Seashore (see Figures 2 and 5).

Commercial air tours conducted with helicopters would fly no lower than 1,000 to 1,500 ft. AGL, depending on location. The ATMP would establish a minimum altitude of 1,000 ft AGL for helicopters over Golden Gate National Recreation Area, except for certain areas of the park in Marin County and around Alcatraz Island where the ATMP would establish a minimum altitude of 1,500 ft. AGL (see Figure 3), where existing operations fly as low as 1,000 ft. AGL in those areas of Marin County.

All commercial tours would fly no lower than 2,000 ft. AGL over land-based wilderness, maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. Hovering aircraft in place would be prohibited.

Commercial air tours would operate from 9:00 AM until 30 minutes after sunset, as defined by the NOAA,¹ for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM for tours of Point Reyes National Seashore. The proposed ATMP also includes incentives for the use of Quiet Technology (QT). Operators that have converted to QT aircraft, or are considering converting to QT aircraft, may request to be allowed to conduct commercial air tours beginning one hour after sunrise on all days that flights are authorized.

Consistency with Provisions of the California Coastal Act

Article 2, Public Access

Ground-based access to coastal zones within each park would not be affected by the ATMP and recreational opportunities would continue to be provided for all people consistent with public safety needs

¹Sunrise and sunset data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. The proposed ATMP limits the annual number of commercial air tours over the Parks, designates specific routes and altitudes, and limits the time of day in which flights may occur in order to protect on the ground visitor experience at the Parks. Additionally, the ATMP would allow the NPS to establish temporary no-fly periods that apply to commercial air tours for special events or planned park management when necessary.

Article 3, Recreation

Commercial air tours offer a recreational experience for those who wish to view the Parks' coastal features from a different vantage point. The ATMP would limit the number of commercial air tours per year, designate specific routes and altitudes, and limit the time of day in which flights may occur in order to protect on-the-ground visitor experience and recreation while providing an additional recreational opportunity. While some temporary noise disturbances may occur, these intrusions would be limited in frequency and duration by the ATMP. For instance, on days when commercial air tours would occur over Golden Gate National Recreation Area, noise levels above 52 dBA will occur for less than 20 minutes a day in several small areas directly beneath and adjacent to the routes.² At Point Reyes, noise levels above 52 dBA are anticipated to occur for less than five minutes a day. Noise impacts would be limited in frequency and duration by the ATMP due to the restrictions to the number of flights per year, routes and altitudes, and time of day flights may occur. Therefore, water-oriented activities and ocean front land suitable for recreation are not anticipated to be impaired by the ATMP.

The ATMP would not result in ground disturbing activities. Therefore, ocean front property for recreation and development, private lands, aquaculture facilities, upland areas necessary to support coastal recreation, and boating activities and facilities would not be altered by the ATMP.

Article 4, Marine Environment

The agencies are working in coordination with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to establish parameters within the ATMP to protect coastal areas utilized by marine mammals, migratory birds, and other birds of conservation concern.

The proposed ATMP designates routes, establishes minimum altitudes, establishes time of day restrictions, and limits the number of commercial air tours conducted per year³. These measures incorporated into the ATMP would serve to avoid and minimize possible effects to marine wildlife, including listed species and their critical habitat. All commercial tours would fly no lower than 2,000 ft. AGL over land-based wilderness and maintain at least 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests, or marine mammal haul outs. Within the Point Reyes park boundary are two no-take state marine reserves, three special closure areas, and three state marine conservation areas. Marine boundaries are shared with the Greater Farallones National Marine Sanctuary, and Cordell Bank National Marine Sanctuary is situated further offshore. NOAA regulations for minimum altitudes within the Greater Farallones National Marine Sanctuary assume that failure to comply with these regulations

² After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the technical noise analysis. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz. The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other park resources, including visitor experience.

³ The proposed ATMP also limits Point Reyes National Seashore to 1 tour per day up to 143 days per year, or 1 tour per day with up to 5 flex days that allow 2 tours per day not to exceed 143 tours per year.

disturbs marine mammals.⁴ The minimum altitudes prescribed in the proposed ATMP exceed the NOAA altitude requirements of 1,000 ft. AGL or above and therefore safeguard marine mammals protected under the Marine Mammal Protection Act regulated by the NOAA.

The ATMP would not result in any ground disturbing activities. Therefore, water quality, marine resources, oil and hazardous spills, diking, filling and dredging, commercial fishing, shoreline altering construction, and water supply would not be altered or of concern. Additionally, the ATMP would not involve other activities with the potential to impact aquatic or terrestrial habitat. Therefore, reptiles, amphibians, fishes, insects, or crustacean species would not be impacted by commercial air tours authorized by the ATMP.

Article 5, Land Resources

The ATMP would not result in ground disturbing activities. Therefore, agricultural land and soil productivity would not be altered by the ATMP.

Article 6, Development

The ATMP would not result in any ground disturbing activities or new development in the area of consideration. Therefore, this article does not apply to the proposed ATMP.

Article 7, Industrial Development

The ATMP would not result in any ground disturbing activities or new development in the area of consideration. Therefore, this article does not apply to the proposed ATMP.

⁴ 15 CFR § 922.82(a)(11)

Determination

The agencies have evaluated the proposed ATMP and have found it to be fully consistent with the California Coastal Act of 1976 as amended.

Thank you for your assistance and collaboration on this federal consistency determination. We look forward to working with you as you complete this review. If you have questions or need more information, please contact Keith Lusk, keith.lusk@faa.gov, or Michelle Carter, michelle_carter@nps.gov, who are helping coordinate overall consistency determination on the ATMP for the Parks on behalf of the agencies.

Completing this ATMP is part of a nationwide effort to comply with a court order to finalize ATMPs for 23 parks as soon as possible. The NPS and FAA are working to complete this ATMP by October 31, 2022. The agencies recognize the Commission has a substantial workload and appreciate any effort you can put toward prioritizing your review in light of this critical deadline. If possible, the agencies would appreciate a response by August 26, 2022.

Sincerely,

Tamara A. Swann

Tamara A. Swann
Regional Administrator (Acting)
Western Pacific Region
Federal Aviation Administration

CAREY
FEIERABEND

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Carey Feieraband
Acting Superintendent
Golden Gate National Recreation Area
National Park Service

Paul DePrey

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Date: 2022.08.16 09:03:13
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Paul DePrey
Superintendent
San Francisco Maritime National Historical Park
National Park Service

CC

- Mr. Cassidy Teufel, Federal Consistency Coordinator, California Coastal Commission (Cassidy.Teufel@coastal.ca.gov)
- Alison Forrestel, Chief of Natural Resources and Science, Golden Gate National Recreation Area
- Bert Ho, Division Lead for Cultural Resources and Museum Management, San Francisco Maritime National Historical Park
- Brannon Ketcham, Management Assistant, Point Reyes National Seashore

Attachments

- Attachment A – Route Maps

Attachment A – Route Maps

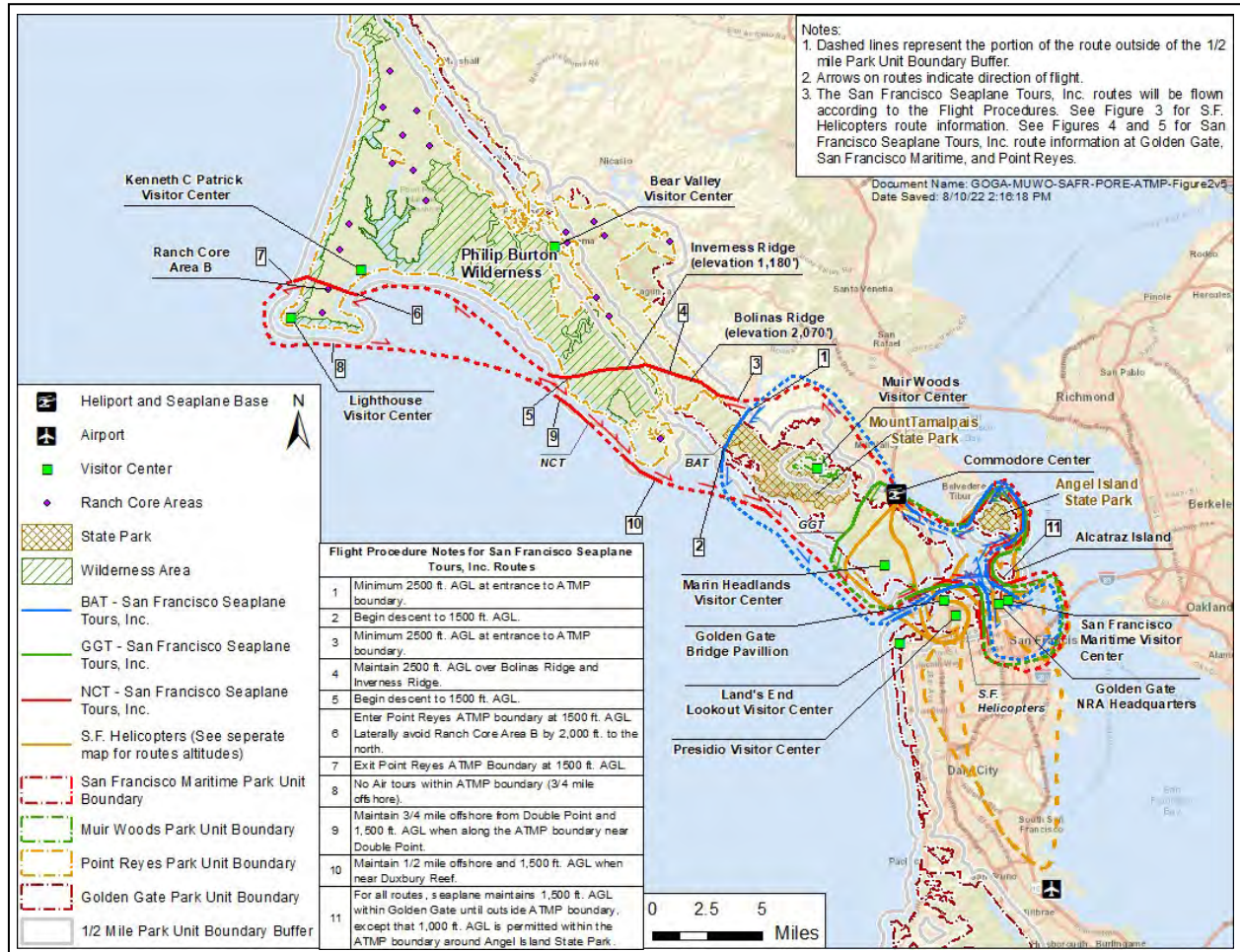


Figure 2. Proposed commercial air tour routes at Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore.

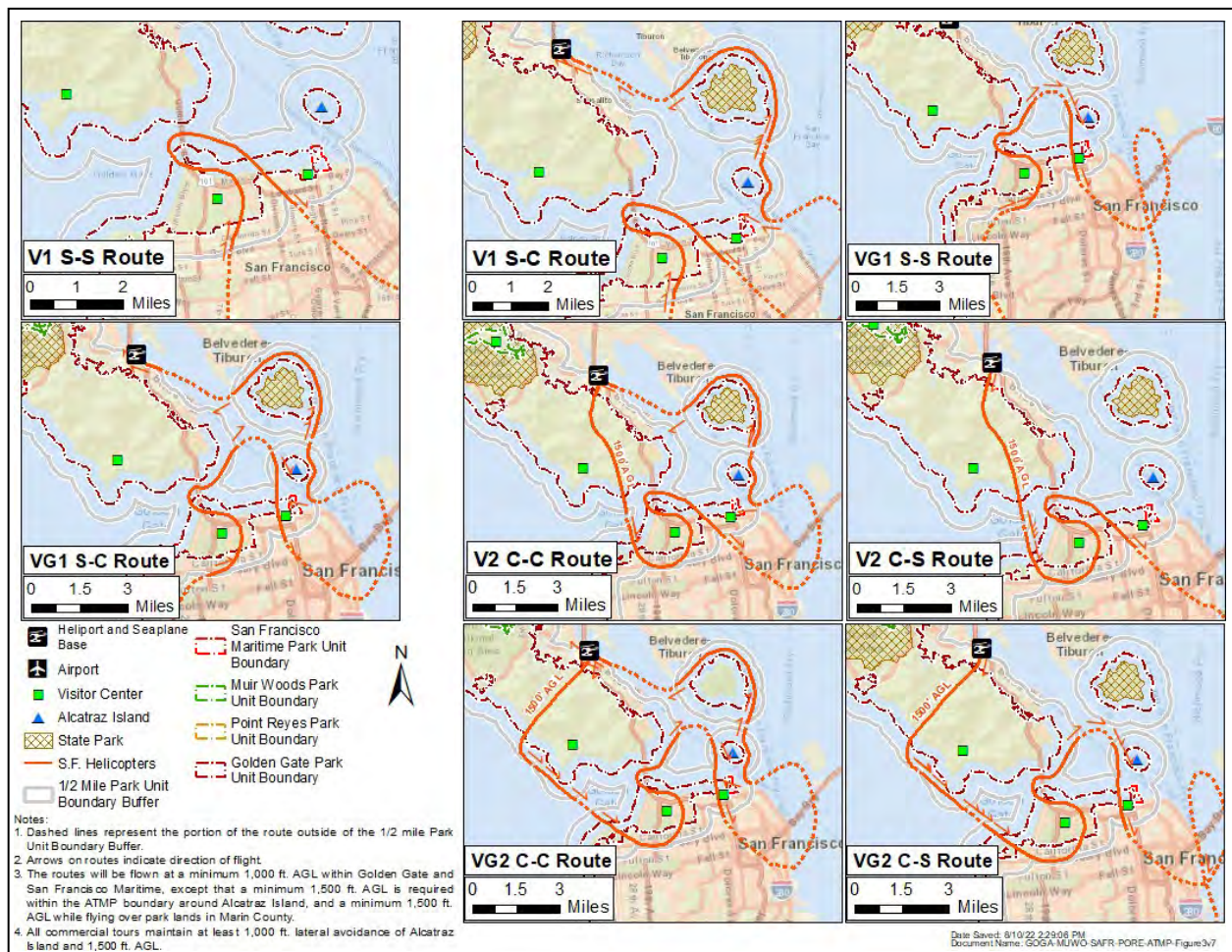


Figure 3. Proposed commercial air tour routes for helicopters at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

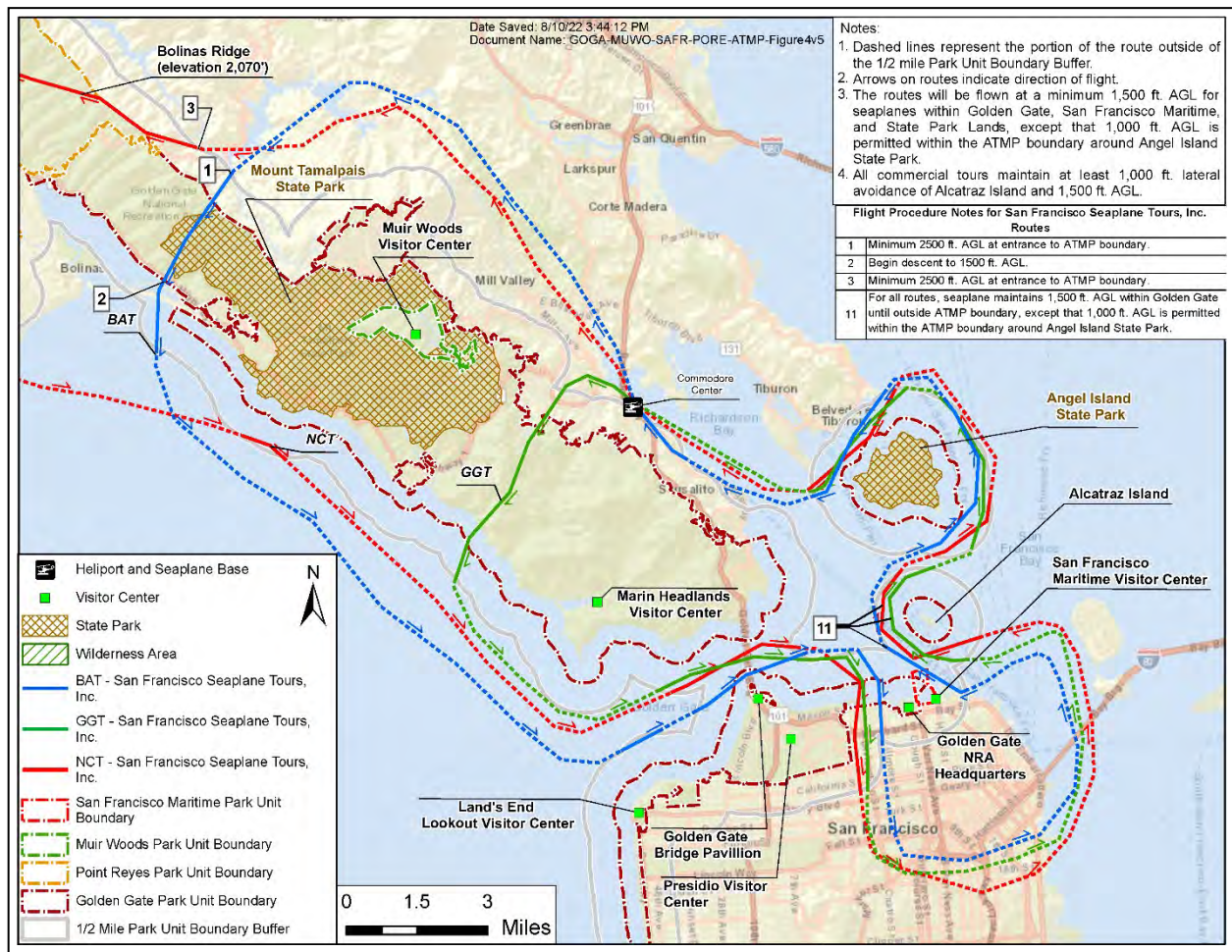


Figure 4. Proposed commercial air tour routes for fixed-wing aircraft at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

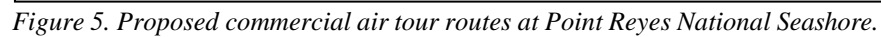


Figure 5. Proposed commercial air tour routes at Point Reyes National Seashore.



United States Department of the Interior
NATIONAL PARK SERVICE



United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

August 15, 2022

John Ainsworth
Executive Director
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

RE: Consistency Determination for Air Tour Management Plan for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore

Dear Mr. Ainsworth:

The Federal Aviation Administration (FAA), in cooperation with the National Park Service (NPS) (collectively, the agencies), is developing an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks). The agencies are preparing documentation for the ATMP in accordance with the National Parks Air Tour Management Act (NPATMA) and other applicable laws.

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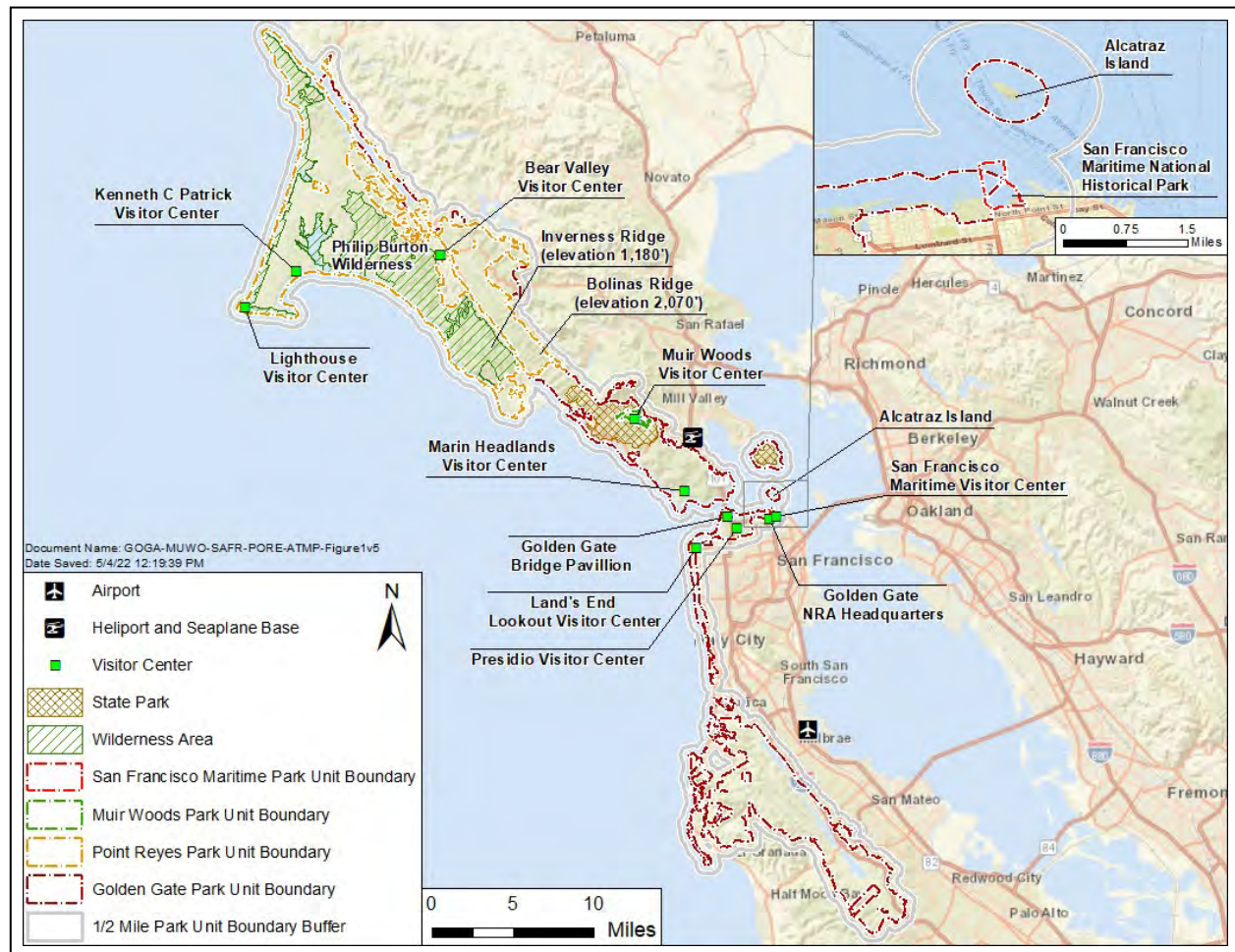


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Under the ATMP, the IOA would be terminated and 2,548 commercial air tours per year would be authorized, which consists of 2,405 commercial air tours for routes that go over Golden Gate National

Recreation Area and San Francisco Maritime National Historical Park, and 143 commercial air tours for a route that goes over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore. The total number of commercial air tours authorized under the ATMP would be consistent with the existing commercial air tours reported over the Parks. It is based on the 3-year average of the total commercial air tours reported in 2017, 2018 and 2019. The annual flight limits in this ATMP are intended to protect visitor experience, wildlife, and wilderness areas throughout the Parks by limiting the number of potential disturbances caused by commercial air tours.

Commercial air tours over Point Reyes would only be conducted using fixed-wing aircraft; no helicopter air tours would be authorized. No commercial air tours would be authorized over, or within a ½ mile of the boundary of, Muir Woods.

Commercial air tours authorized under this ATMP would be conducted on the routes and altitudes in Figures 2 through 5 in Attachment A. Due to the location and proximity of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park (the two parks share a boundary), an air tour route authorized by this ATMP passes over both parks. The only authorized commercial air tour route that would pass over Point Reyes National Seashore would also pass over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

Under the proposed ATMP, commercial air tours conducted with fixed-wing aircraft would fly no lower than 1,000 to 2,500 ft. AGL, depending on the location. The ATMP would establish a minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Golden Gate National Recreation Area, depending on location over the park, except that 1,000 ft. AGL would be permitted within the ATMP boundary around Angel Island State Park (see Figures 2 and 4), where existing operations fly as low as 1,000 ft AGL depending on location. The ATMP would establish a minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Point Reyes National Seashore (see Figures 2 and 5).

Commercial air tours conducted with helicopters would fly no lower than 1,000 to 1,500 ft. AGL, depending on location. The ATMP would establish a minimum altitude of 1,000 ft AGL for helicopters over Golden Gate National Recreation Area, except for certain areas of the park in Marin County and around Alcatraz Island where the ATMP would establish a minimum altitude of 1,500 ft. AGL (see Figure 3), where existing operations fly as low as 1,000 ft. AGL in those areas of Marin County.

All commercial tours would fly no lower than 2,000 ft. AGL over land-based wilderness, maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs. Hovering aircraft in place would be prohibited.

Commercial air tours would operate from 9:00 AM until 30 minutes after sunset, as defined by the NOAA,¹ for tours of Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM for tours of Point Reyes National Seashore. The proposed ATMP also includes incentives for the use of Quiet Technology (QT). Operators that have converted to QT aircraft, or are considering converting to QT aircraft, may request to be allowed to conduct commercial air tours beginning one hour after sunrise on all days that flights are authorized.

Consistency with Provisions of the California Coastal Act

Article 2, Public Access

Ground-based access to coastal zones within each park would not be affected by the ATMP and recreational opportunities would continue to be provided for all people consistent with public safety needs

¹Sunrise and sunset data are available from the NOAA Solar Calculator, <https://www.esrl.noaa.gov/gmd/grad/solcalc/>

and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. The proposed ATMP limits the annual number of commercial air tours over the Parks, designates specific routes and altitudes, and limits the time of day in which flights may occur in order to protect on the ground visitor experience at the Parks. Additionally, the ATMP would allow the NPS to establish temporary no-fly periods that apply to commercial air tours for special events or planned park management when necessary.

Article 3, Recreation

Commercial air tours offer a recreational experience for those who wish to view the Parks' coastal features from a different vantage point. The ATMP would limit the number of commercial air tours per year, designate specific routes and altitudes, and limit the time of day in which flights may occur in order to protect on-the-ground visitor experience and recreation while providing an additional recreational opportunity. While some temporary noise disturbances may occur, these intrusions would be limited in frequency and duration by the ATMP. For instance, on days when commercial air tours would occur over Golden Gate National Recreation Area, noise levels above 52 dBA will occur for less than 20 minutes a day in several small areas directly beneath and adjacent to the routes.² At Point Reyes, noise levels above 52 dBA are anticipated to occur for less than five minutes a day. Noise impacts would be limited in frequency and duration by the ATMP due to the restrictions to the number of flights per year, routes and altitudes, and time of day flights may occur. Therefore, water-oriented activities and ocean front land suitable for recreation are not anticipated to be impaired by the ATMP.

The ATMP would not result in ground disturbing activities. Therefore, ocean front property for recreation and development, private lands, aquaculture facilities, upland areas necessary to support coastal recreation, and boating activities and facilities would not be altered by the ATMP.

Article 4, Marine Environment

The agencies are working in coordination with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to establish parameters within the ATMP to protect coastal areas utilized by marine mammals, migratory birds, and other birds of conservation concern.

The proposed ATMP designates routes, establishes minimum altitudes, establishes time of day restrictions, and limits the number of commercial air tours conducted per year³. These measures incorporated into the ATMP would serve to avoid and minimize possible effects to marine wildlife, including listed species and their critical habitat. All commercial tours would fly no lower than 2,000 ft. AGL over land-based wilderness and maintain at least 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests, or marine mammal haul outs. Within the Point Reyes park boundary are two no-take state marine reserves, three special closure areas, and three state marine conservation areas. Marine boundaries are shared with the Greater Farallones National Marine Sanctuary, and Cordell Bank National Marine Sanctuary is situated further offshore. NOAA regulations for minimum altitudes within the Greater Farallones National Marine Sanctuary assume that failure to comply with these regulations

² After completing noise modeling for the proposed action, a minor altitude adjustment was made for which the impacts are not represented in the technical noise analysis. The helicopter route altitude was raised from 1,000 ft. to 1,500 ft. AGL near Alcatraz (commercial air tours directly over Alcatraz are prohibited) to reduce noise impacts on nesting seabirds. Compared to current conditions, this altitude adjustment may result in a short increase in noise in two locations along the route due to the flight dynamics of helicopters when changing altitudes. The noise increases are expected to last for only a few minutes of the tour and would occur when the helicopter ascends to 1,500 ft. AGL and then descends back to 1,000 ft. AGL both of which occur before and after the flight passes near sensitive bird habitat at Alcatraz. The NPS has determined that the overall effect of this change would be beneficial for nesting seabirds and other park resources, including visitor experience.

³ The proposed ATMP also limits Point Reyes National Seashore to 1 tour per day up to 143 days per year, or 1 tour per day with up to 5 flex days that allow 2 tours per day not to exceed 143 tours per year.

disturbs marine mammals.⁴ The minimum altitudes prescribed in the proposed ATMP exceed the NOAA altitude requirements of 1,000 ft. AGL or above and therefore safeguard marine mammals protected under the Marine Mammal Protection Act regulated by the NOAA.

The ATMP would not result in any ground disturbing activities. Therefore, water quality, marine resources, oil and hazardous spills, diking, filling and dredging, commercial fishing, shoreline altering construction, and water supply would not be altered or of concern. Additionally, the ATMP would not involve other activities with the potential to impact aquatic or terrestrial habitat. Therefore, reptiles, amphibians, fishes, insects, or crustacean species would not be impacted by commercial air tours authorized by the ATMP.

Article 5, Land Resources

The ATMP would not result in ground disturbing activities. Therefore, agricultural land and soil productivity would not be altered by the ATMP.

Article 6, Development

The ATMP would not result in any ground disturbing activities or new development in the area of consideration. Therefore, this article does not apply to the proposed ATMP.

Article 7, Industrial Development

The ATMP would not result in any ground disturbing activities or new development in the area of consideration. Therefore, this article does not apply to the proposed ATMP.

⁴ 15 CFR § 922.82(a)(11)

Determination

The agencies have evaluated the proposed ATMP and have found it to be fully consistent with the California Coastal Act of 1976 as amended.

Thank you for your assistance and collaboration on this federal consistency determination. We look forward to working with you as you complete this review. If you have questions or need more information, please contact Keith Lusk, keith.lusk@faa.gov, or Michelle Carter, michelle_carter@nps.gov, who are helping coordinate overall consistency determination on the ATMP for the Parks on behalf of the agencies.

Completing this ATMP is part of a nationwide effort to comply with a court order to finalize ATMPs for 23 parks as soon as possible. The NPS and FAA are working to complete this ATMP by October 31, 2022. The agencies recognize the Commission has a substantial workload and appreciate any effort you can put toward prioritizing your review in light of this critical deadline. If possible, the agencies would appreciate a response by August 26, 2022.

Sincerely,

Tamara A. Swann

Tamara A. Swann
Regional Administrator (Acting)
Western Pacific Region
Federal Aviation Administration

CAREY
FEIERABEND

Digitally signed by
CAREY FEIERABEND
Date: 2022.08.15
21:20:59 -07'00'

Carey Feieraband
Acting Superintendent
Golden Gate National Recreation Area
National Park Service

CRAIG KENKEL

Digitally signed by CRAIG
KENKEL
Date: 2022.08.16 08:53:29
-07'00'

Craig Kenkel
Superintendent
Point Reyes National Seashore
National Park Service

CC

- Mr. Cassidy Teufel, Federal Consistency Coordinator, California Coastal Commission (Cassidy.Teufel@coastal.ca.gov)
- Alison Forrestel, Chief of Natural Resources and Science, Golden Gate National Recreation Area
- Bert Ho, Division Lead for Cultural Resources and Museum Management, San Francisco Maritime National Historical Park
- Brannon Ketcham, Management Assistant, Point Reyes National Seashore

Attachments

- Attachment A – Route Maps

Attachment A – Route Maps

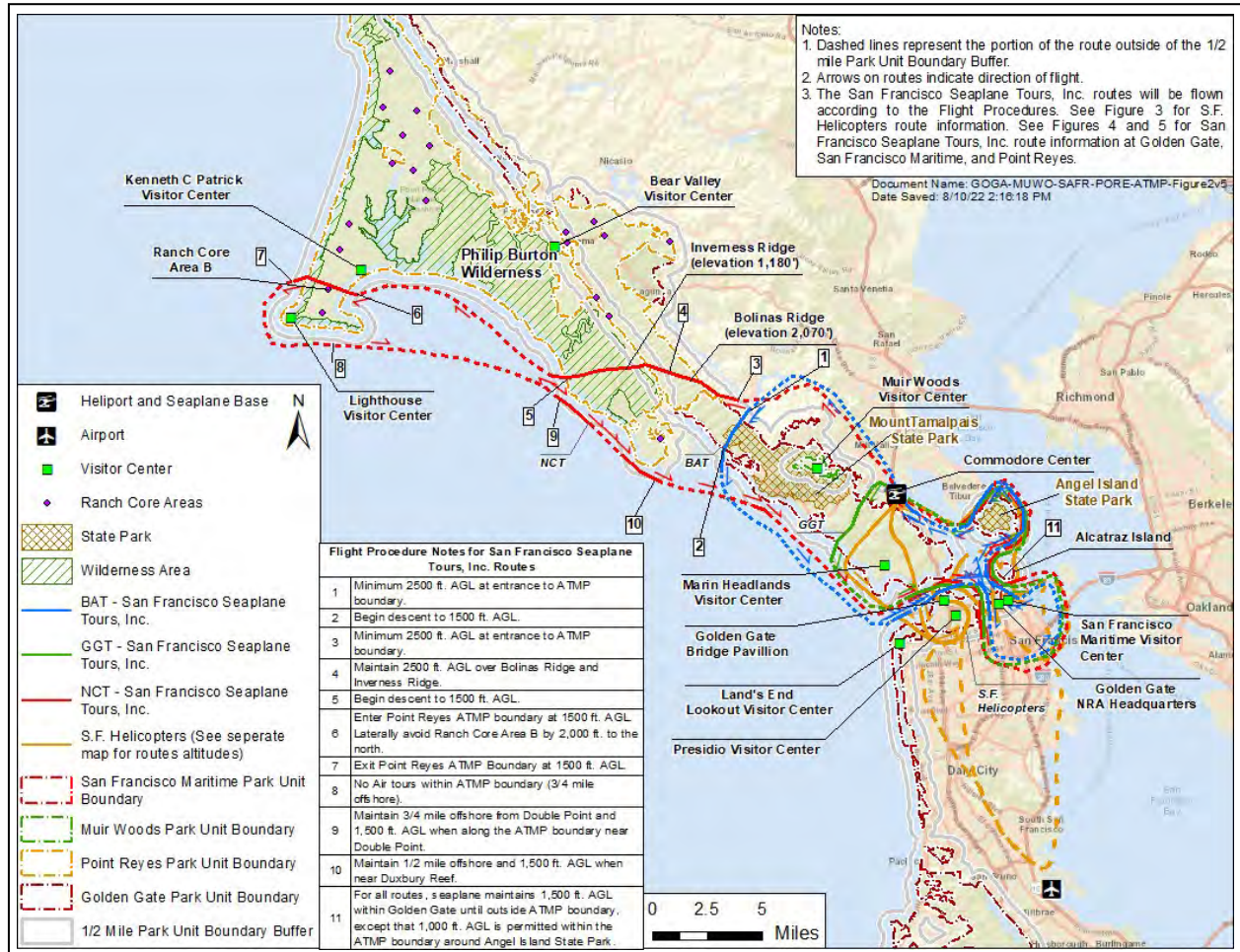


Figure 2. Proposed commercial air tour routes at Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore.

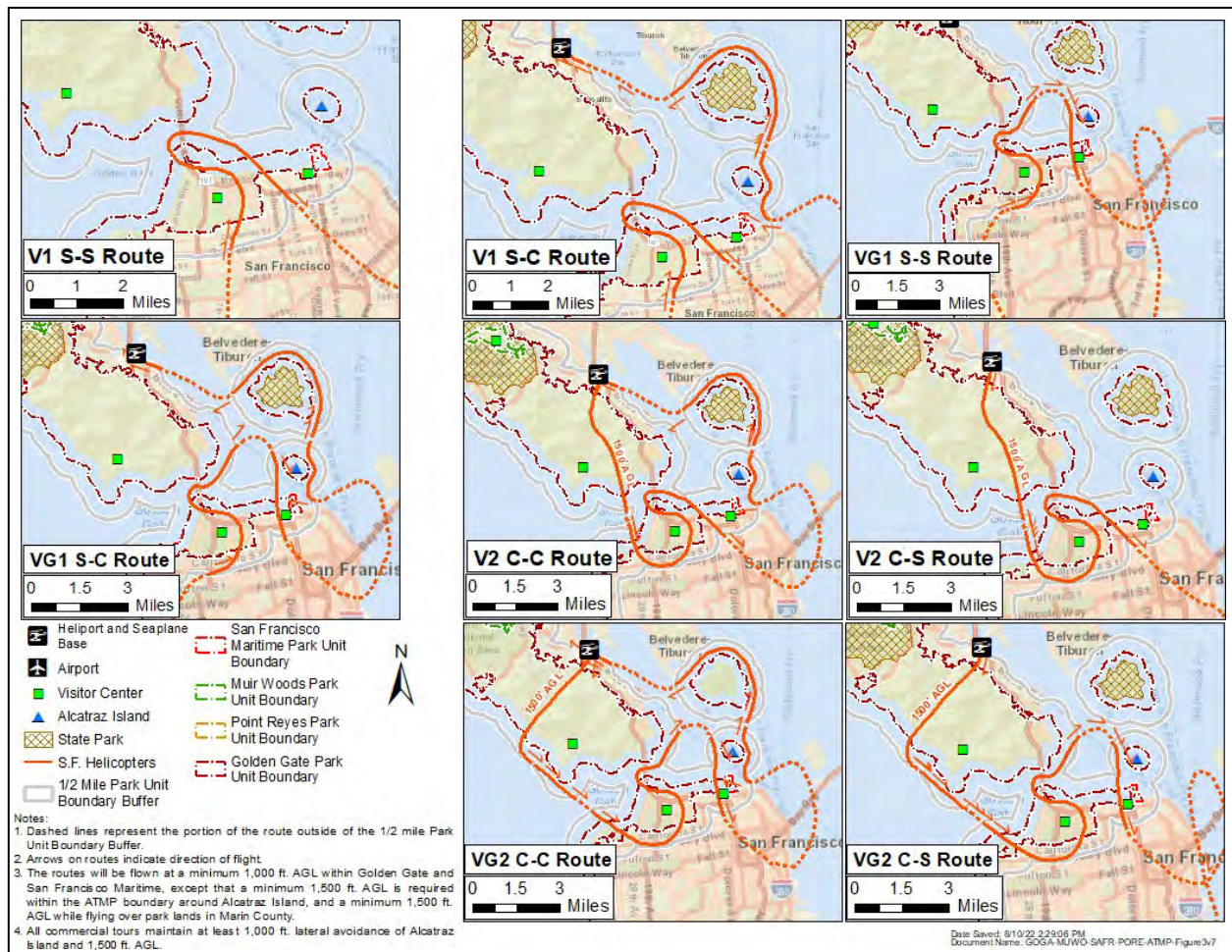


Figure 3. Proposed commercial air tour routes for helicopters at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park

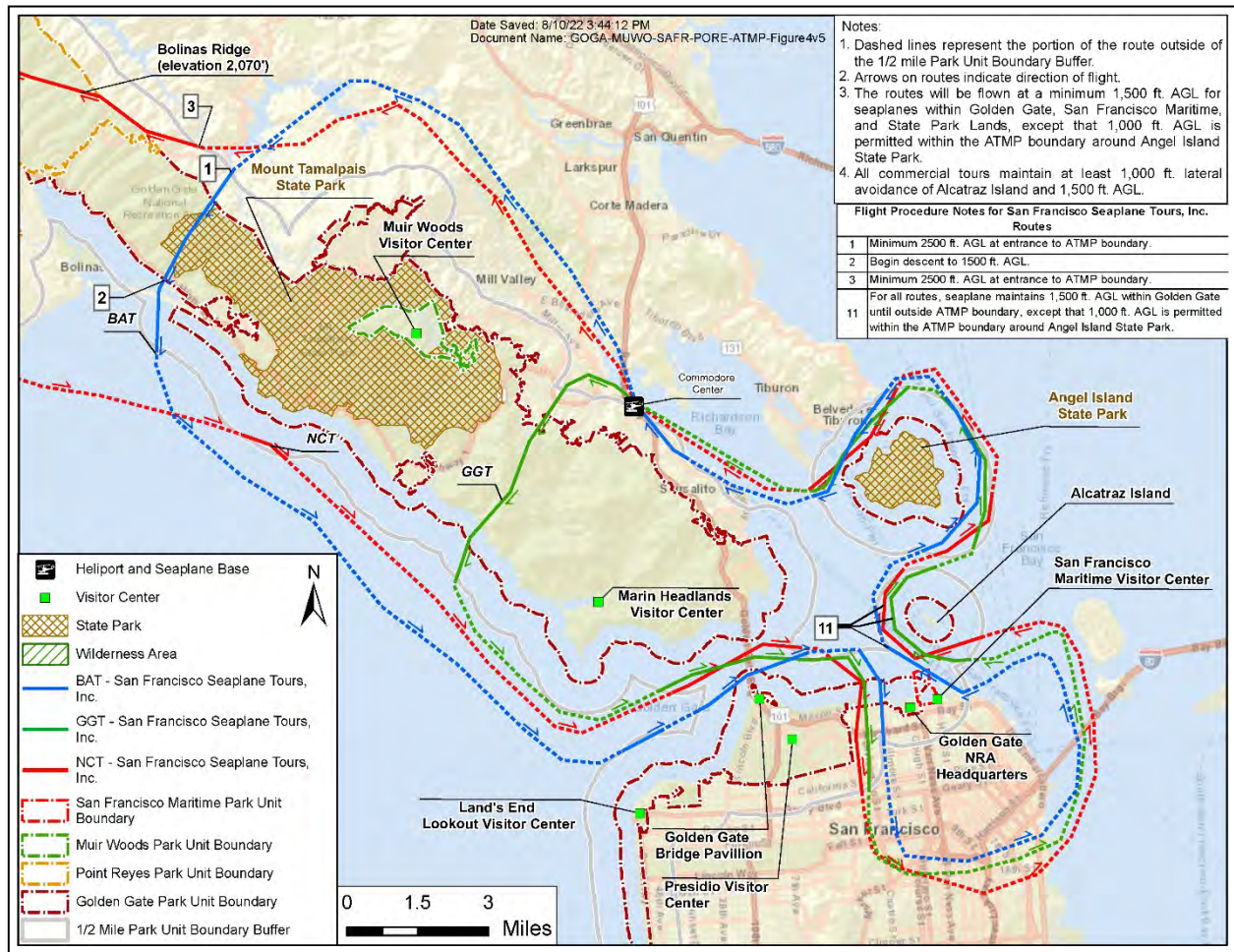


Figure 4. Proposed commercial air tour routes for fixed-wing aircraft at Golden Gate National Recreation Area and San Francisco Maritime National Historical Park.

San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190

State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

August 30, 2022

Federal Aviation Administration, Western Pacific Region
777 S. Aviation Blvd., Suite 150
El Segundo, CA 90245
ATTN: Tamara A. Swann, Acting Regional Administrator

Golden Gate National Recreation Area, National Park Service
Building 201, Fort Mason
San Francisco, CA 94123
ATTN: Carey Feierabend, Acting Superintendent

San Francisco Maritime National Historical Park, National Park Service
2 Marina Boulevard,
Building E, 2nd Floor
San Francisco, CA 94123
ATTN: Paul DePrey, Superintendent
Via email: <Paul_DePrey@nps.gov>

SUBJECT: National Parks Air Tour Management Program (BCDC Permit Application No. C2022.007.00)

Dear Ms. Swann, Ms. Feierabend, and Mr. DePrey:

Thank you for your request for Commission concurrence with the federal consistency determination received in this office on August 16, 2022 on behalf of the National Park Service (NPS), in cooperation with the Federal Aviation Administration (FAA), to develop an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks).

As you are aware, a portion of the proposed project is located in the San Francisco Bay and has the potential to affect the Commission's San Francisco Bay Coastal Zone. As such, the project is being evaluated for consistency with the federal Coastal Zone Management Act (CZMA), as amended, and the Commission's federally approved Coastal Management Program for San Francisco Bay, which includes the McAteer-Petris Act, the Suisun Marsh Preservation Act, the Commission's *San Francisco Bay Plan* (Bay Plan), and the Suisun Marsh Protection Plan (SMPP). Most relevant for this project are the McAteer-Petris Act and the Bay Plan.



The Commission staff intends to work with the NPS and its representatives to expeditiously evaluate the Proposed Project for consistency with the applicable laws and policies, but it is our understanding the project has yet to be fully evaluated for consistency under the above-mentioned laws and policies incorporated into the Commission's Coastal Management Program. We are requesting that NPS provide an evaluation of the consistency of the Proposed Project with the McAteer-Petris Act and relevant Bay Plan policies, and the itemized information listed below as part of this request for concurrence, as described in 15 CFR§ 930.34 (a)(2). This section of the CZMA encourages federal agencies to "coordinate and consult with State agencies through use of existing procedures in order to avoid waste, duplication of effort, and to reduce Federal and State agency administrative burdens." Having this information has afforded the Commission the advice of agencies with more specific expertise in certain subject areas and has allowed the Commission and other agencies to agree upon and coordinate appropriate conditions and mitigation requirements, if necessary. If NPS is agreeable to this request, the 60-day review period would not start until this consultation and the information requested below is provided to the Commission staff. Please inform us in writing (letter or email) at your earliest convenience if NPS agrees with this request.

Our initial review of NPS's request for consistency determination review found that the following information is needed to file the consistency determination complete, consistent with 15 CFR §930.39(a). As a result, pursuant to the requirements of 15 CFR 930.41, the Commission's 60-day consistency determination review period has not commenced. Therefore, please provide the following information:

1. Total Project and Site Information

From reviewing your materials, it appears that that the Proposed Project would develop an ATMP that would provide the terms and conditions for commercial air tours conducted over the Parks, within 1/2-mile outside the Parks' boundaries, and over tribal lands within or abutting the Parks, and authorizes the following activities:

- a. 2,548 commercial air tours per year, consisting of 2,405 commercial air tours for routes that go over Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and 143 commercial air tours for a route that goes over Golden Gate National Recreation Area, San Francisco Maritime National Historical Park, and Point Reyes National Seashore;
- b. No commercial air tours would be authorized over, or within a ½ mile of the boundary of, Muir Woods;
- c. Flight Elevations
 - (1) Commercial air tours conducted with fixed-wing aircraft would fly no lower than 1,000 to 2,500 ft. above ground level (AGL), depending on the location:

- (a) A minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Golden Gate National Recreation Area, except for around Angel Island State Park where 1,000 ft. would be permitted; and,
 - (b) A minimum altitude of 1,500 ft. AGL or higher for fixed-wing aircraft over Point Reyes National Seashore.
- (2) Commercial air tours conducted with helicopters would fly no lower than 1,000 to 1,500 ft. AGL, depending on location:
 - (a) A minimum altitude of 1,000 ft AGL over Golden Gate National Recreation Area, except for certain areas of the park in Marin County and around Alcatraz Island with a minimum altitude of 1,500 ft.
- (3) All commercial tours would fly no lower than 2,000 ft. AGL over land-based wilderness, maintain at least 1,000 ft. lateral avoidance of Alcatraz Island and 1,500 ft. AGL, and 1,000 ft. lateral avoidance of nesting waterbird colonies, peregrine falcon nests or marine mammal haul outs.
- (4) Hovering aircraft in place would be prohibited.
- d. Commercial air tours would operate from 9:00 AM until 30 minutes after sunset for Golden Gate National Recreation Area and San Francisco Maritime National Historical Park, and from 12:00 PM to 5:00 PM for tours of Point Reyes National Seashore Operators that use Quiet Technology aircraft, or are considering converting to QT aircraft, may potentially conduct commercial air tours beginning one hour after sunrise.

Please indicate whether the proposed ATMP has been described in full or correct the project description if necessary.

2. Consistency with the McAteer-Petris Act and San Francisco Bay Plan

As noted above, the Commission's approved Coastal Management Program includes the McAteer-Petris Act and the San Francisco Bay Plan. Please provide an assessment of the Proposed Project's consistency with our laws and policies, and any additional data and information necessary to support the consistency determination. More specifically, please provide a description of the consistency with the Bay Plan Policies on Fish, Other Aquatic Organisms and Wildlife; Tidal Marshes and Tidal Flats; Water Quality; Environmental Justice and Social Equity; Recreation; Public Access; Airports; and any other relevant policies.

3. Environmental Minimization Measures and Species Impacts

The Parks and the Bay contain a wide variety of wildlife species and sensitive habitat, including nesting waterbird colonies, peregrine falcon nests, and marine mammal haul outs, and many other native species and their habitats. Please provide copies of any consultations NPS has undertaken with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to avoid

possible adverse species and wildlife habitat impacts for listed species, or indicate whether such consultations are not necessary for the Proposed Project. Please further confirm that the ATMP would not result in any ground disturbing activities or any construction of associated ground infrastructure.

4. Environmental Documentation

Please indicate whether NPS or the FAA plans to conduct an analysis of the Proposed Project under the National Environmental Policy Act (NEPA). If so, or if this has already occurred, please provide a copy of the environmental documentation as part of the data and information provided to support the consistency determination. If no environmental analysis will be conducted for the Proposed Project under the National Environmental Policy Act, please provide an explanation which justifies this decision.

5. Public Access and Recreation

Please confirm that the proposed ATMP will have no impacts to public access or recreation within or adjacent to the Parks, including physical and visual access at public areas, vista points, along the shoreline, and areas along the flight routes. If there will be impacts to public access and recreation from the Proposed Project, please provide an analysis of the impacts and any minimization measures that will be used to minimize or mitigate the impacts.

6. Airport Use and Airplane Operations

We note that many of the routes for the commercial tours begin at the Seaplane Adventures-Seaplane and Heliport Base (formerly called Commodore Center) located at 242 Redwood Highway, Mill Valley in Marin County. It is not clear whether all flights authorized under this ATMP leave out of this airport alone or also come from other airports. Please provide additional information on where the airplanes will be coming from. Please also provide information on whether the ATMP allows for any increases in the frequency of flights from Seaplane Adventures or other airports around the Bay Area. Additionally, please see enclosed the recent letter from the Richardson Bay Environmental Protection Association that was submitted to the Commission on July 12, 2022 and that discusses concerns regarding potential lead contamination alleged to be the result of the fuel source used by these airplanes and the intensity or number of flights leaving from the Seaplane Adventures airport. Please provide any information responsive to the legitimacy of these concerns and an evaluation of consistency with any Bay Plan policies relevant to this issue.

7. Interested Parties

It is necessary to have a complete list of interested parties prior to filing the consistency determination. Please provide a list of adjacent property owners and other parties known to be interested in your project, wherever possible, please include email addresses as all correspondence related to Commission meetings and permits is currently being sent electronically.

Ms. Tamara A. Swann, Ms. Carey Feierabend, and Mr. Paul DePrey
BCDC Permit Application No. C2022.007.00

Page 5
August 30, 2022

If you have any questions, please do not hesitate to contact me at 415-352-3665 or
sam.fielding@bcdca.gov.

Sincerely,

DocuSigned by:

2AA0DD5043E4453...

SAM FIELDING

Coastal Program Analyst

SF/gg

Encl.: Letter from the Richardson Bay Environmental Protection Association

cc: Cassidy Teufel, California Coastal Commission, <Cassidy.Teufel@coastal.ca.gov>
Alison Forrestel, Golden Gate National Recreation Area, <alison_forrestel@nps.gov>
Bert Ho, Francisco Maritime National Historical Park, <Bert_Ho@nps.gov>
Brannon Ketcham, Point Reyes National Seashore, <Brannon_Ketcham@nps.gov>



**United States Department of the Interior
NATIONAL PARK SERVICE**



**United States Department of Transportation
FEDERAL AVIATION ADMINISTRATION**

NATIONAL PARKS AIR TOUR MANAGEMENT PROGRAM

September 29, 2022

Sam Fielding
Coastal Program Analyst
San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510
San Francisco, CA 94105

Dear Mr. Fielding,

Thank you for your August 30, 2022 letter responding to the National Park Service (NPS) and Federal Aviation Administration's (FAA) (together, the agencies) request for concurrence from the San Francisco Bay Conservation and Development Commission (Commission) on the Federal consistency determination on the proposed Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (together, the Parks). We understand that the Commission received the agencies' consistency determination on August 16, 2022. We respectively renew our request that the Commission concur with our consistency determination, the content of which is incorporated herein by reference.

As an initial matter, some of the information requested exceeds that required by 36 CFR § 930.39(a). We have provided the information required by 36 CFR § 930.39(a) and have attempted to provide the additional information requested to the extent practicable in order to aid your review and to provide additional context for the ATMP. However, we have had to balance our desire to be responsive to the Commission's request for additional information with the fact that this planning process is proceeding under the supervision of the U.S. Court of Appeals for the D.C. Circuit, with a completion deadline of January 31, 2023. *See* Attachment A. Further, the detail provided is commensurate with the expected effects from implementation of the ATMP on resources under the Commission's jurisdiction, all of which are beneficial when measured from the current condition. Under the circumstances, we consider the information submitted herewith, together with the information we previously submitted, to fulfill our obligations and to start the 60-day period for the Commission's review of the agencies' determination.

We understand that the agencies' preparation of a single ATMP that will regulate commercial air tours over four National Park System units, including areas within the jurisdiction of the Commission as well as areas within the jurisdiction of the California Coastal Commission, may have caused some confusion regarding the potential for impacts on areas within the Commission's jurisdiction. The agencies decided to prepare a single ATMP covering the four parks as a matter of administrative efficiency. In our response to your request, we have focused on the area within the Commission's jurisdiction.

1. Total Project and Site Information:

The total project and site information included in our consistency determination accurately describes the area included in the ATMP. The description included in your August 30, 2022, letter is generally accurate, though it excludes some information as described below. We are also providing additional information and context to further the Commission's understanding of the project and its impacts.

Commercial air tours have been operating over Golden Gate National Recreation Area (Golden Gate) and San Francisco Maritime National Historical Park (San Francisco Maritime) well before the National Parks Air Tour Management Act (NPATMA) was enacted in 2000. Prior to NPATMA, air tour operators were subject only to FAA's general safety regulations, which applied to the operators of various types of aircraft, including those used to conduct commercial air tour operations whether or not the tours flew over national parks. At that time there were no limits on the number of air tours that could be conducted per year and no designated routes or altitudes for flights.

As previously explained, NPATMA required the FAA to grant interim operating authority (IOA) to existing commercial air tour operators that applied for it. 49 U.S.C. § 40128(c)(1). Specifically, the FAA was required to grant IOA that authorized the greater of the number of commercial air tour flights over the Parks during the 12-month period prior to the enactment of NPATMA, or the average number of commercial air tour flights within the 36-month period prior to the enactment of NPATMA. *Id.* § 40128(c)(2). Since 2005, commercial air tours over Golden Gate and San Francisco Maritime have been conducted pursuant to IOA issued by the FAA in accordance with NPATMA. *See* 70 Fed. Reg. 36,456 (June 23, 2005).

Currently, two commercial air tour operators (San Francisco Helicopters, LLC and San Francisco Seaplane Tours, LLC) hold IOA to conduct a combined total of 5,090 commercial air tours over Golden Gate and San Francisco Maritime. San Francisco Helicopters, LLC holds IOA for 2,900 commercial air tours each year and San Francisco Seaplane Tours, LLC holds IOA for 2,190 commercial air tours each year over each of the Parks. IOA does not itself include any operating parameters (e.g., routes, altitudes, time of day, etc.) for commercial air tours other than an upper limit of the total number of air tours operators may conduct each year. The maps included in the agencies' consistency determination display existing routes as reported by the operators, with modifications made by the agencies to protect Park resources, however the operators are not currently required to follow any designated routes and may change their routes at any time without notice to the agencies. Commercial air tours are conducted at altitudes ranging between

1,000 feet (ft.) and 2,500 ft. above ground level (AGL)¹ depending on location over the Parks, though under IOA there is no minimum altitude required.² And though there are no restrictions as to when air tours may occur, tours of Golden Gate and San Francisco Maritime are typically conducted between the hours of 9:00 AM and 6:00 PM and occur year-round. San Francisco Seaplane Tours also offers a sunset tour. Your August 30, 2022, letter does not reflect that IOA will be terminated on the effective date of the ATMP, after which time the commercial air tour operators would be required to comply with the terms of the ATMP. The agencies believe this is an important aspect of the project, because the ATMP includes multiple measures designed to protect the Parks' resources.

Put differently, the ATMP would allow the agencies to regulate the commercial air tours that are already occurring, with modifications that protect the Parks' resources and resources of concern to the Commission. The ATMP would authorize the existing number of commercial air tours per year (2,548) not the 5,090 currently authorized under IOA. It designates routes that are based on operator reported routes but which the agencies have modified for the protection of park resources, and that include lateral offsets to protect wildlife. As described in our consistency determination, the ATMP would require aircraft to fly at minimum altitudes set for the protection of park resources, where there are currently no minimum altitudes required. Nearly all of the minimum altitudes required by the ATMP are above altitudes currently flown.

Your August 30, 2022, letter does not include a reference to the designated routes, which are another key feature of the ATMP that we would like to explain better as part of this response. As noted above, under IOA there are no designated routes and the operators could change their routes at any time. The maps included in our consistency determination identify the particular route modifications that would be made by the ATMP to protect wildlife including nesting seabird colonies, peregrine falcon nests, and marine mammal haul outs. The required altitudes are also depicted on the maps included with our consistency determination. Versions of these maps with more site-specific details are attached as Attachment H.

The ATMP includes a reporting requirement in the unlikely event of a bird strike resulting from commercial air tours over the Parks, which will allow the agencies to monitor and respond to potential impacts to raptors, migratory birds, or other avian species. If unanticipated impacts to the parks' natural resources are observed, the ATMP provides that adaptive management measures could be taken to avoid such impacts, as long as the impacts of the adaptive management measures are within the impacts already analyzed by the agencies. Unanticipated impacts to the parks' resources could also be addressed through a plan amendment which would require further environmental compliance. Under current conditions, there is no requirement for operators to report bird strikes.

The ATMP also includes provisions requiring that operators install flight following technology that, coupled with the ATMP's reporting requirements, will enable the agencies to monitor and enforce compliance with the ATMP's terms.

¹ Altitude expressed in AGL units is a measurement of the distance between the ground surface and the aircraft.

² While IOA does not prescribe a minimum altitude, operators are required to comply with general FAA minimum altitude regulations at 14 CFR § 91.119.

It is also important to note the limits of the agencies' regulatory jurisdiction under NPATMA and its implementing regulations. An ATMP may only regulate commercial air tours over a National Park System unit or outside that park but within 1/2 mile of its boundary during which the aircraft flies below 5,000 ft. AGL. Air tours outside of this area are not subject to regulation under NPATMA and are therefore not regulated under the ATMP. The maps included in our consistency determination, and in Attachment H, depict the area that is within the scope of the ATMP and the area outside the scope of the ATMP.

2. Consistency with the McAteer-Petris Act and San Francisco Bay Plan:

In your letter, you requested an assessment of how the ATMP is consistent with the Commission's approved Coastal Management Program. The agencies believe that the implementation of an ATMP for the Parks consistent with the McAteer-Petris Act and the policies set forth in the San Francisco Bay Plan. Implementation of the ATMP would provide protections for the Parks' resources not in place under current conditions. The ATMP does not involve development, placing fill, extracting materials, or making any substantial change in the use of any water, land, or structure within the area of the Commission's jurisdiction. Further, it will not take or damage private property for public use or make any changes to public access. The agencies have analyzed the applicable policies from the sections of the Bay Plan identified in your letter and provide the following analyses.

Water Quality, Tidal Marshes and Tidal Flats

The ATMP would allow the agencies to regulate the commercial air tours that are already occurring. It would require aircraft to abide by the time-of-day restrictions, fly at minimum altitudes, and fly on designated routes set for the protection of the Parks' resources noted above and in our consistency determination, where there are currently no such requirements. The ATMP does not involve any ground disturbance or other activities that could affect tidal marshes or tidal flats. No aircraft will take off or land within the area regulated by the ATMP. Therefore, implementation of the ATMP will have no impact on tidal marshes and tidal flats, or water quality.

Fish, Other Aquatic Organisms and Wildlife

The ATMP does not involve ground-disturbing activities or other activities with the potential to impact aquatic or terrestrial habitat. Thus, reptiles, amphibians, fishes, insects, and flowering plant species will not be impacted by the commercial air tours authorized by the ATMP. The ATMP sets the minimum altitudes at 1,000 to 1,500 ft. AGL, depending on location for commercial air tours using helicopters and fixed-wing aircraft. Aircraft are required to maintain a minimum altitude of 1,500 ft. AGL, and a 1,000 ft. lateral avoidance of marine mammal haul outs, which is more protective than the minimum altitude of 1,000 ft. AGL required by NOAA for overflights of the Greater Farallones National Marine Sanctuary. The ATMP's provisions, including the 1,000 ft. lateral set off from Alcatraz Island and the 1,500 ft. AGL minimum altitude required near Alcatraz Island are protective of nesting shorebirds and other avian species. The requirement to report bird strikes, detailed above, also will allow the agencies to assess the effectiveness of these protections, and to modify them in the event that unanticipated adverse impacts are observed. Thus, the agencies determined that the ATMP will result in

beneficial impacts to marine mammals and birds compared to current conditions. Attachment B is the agencies' Section 7 Endangered Species Act No Effect Determination and Evaluation of Other Species of Concern, which includes the additional analysis. Thus, the ATMP is consistent with the Bay Plan because it would not affect reptiles, amphibians, fish, insects, or plant species, and includes measures that will improve protections for marine mammals and birds compared to current conditions.

Environmental Justice and Social Equity

The agencies examined U.S. Census data for the census blocks surrounding Golden Gate and San Francisco Maritime to determine the presence of minority or low-income populations immediately outside these parks or within ½ mile of their boundaries. Based on this review, minority populations were identified in San Francisco County. However, the commercial air tours authorized by the ATMP will not have a disproportionate impact on low-income or minority populations, since the noise associated with commercial air tours will occur in areas directly beneath and adjacent to the routes over the Park and will not be concentrated over low-income or minority populations. As noted above, under current conditions (IOA), there are no designated routes and the operators could change their routes at any time. The two commercial operators also hold IOA to conduct a combined total of 5,090 commercial air tours each year over both Golden Gate and San Francisco Maritime. The ATMP will not authorize any on-the-ground activities. It will limit the number of commercial air tours that the operators are authorized to conduct over the parks each year to existing conditions, or the three-year average of tours conducted on an annual basis from 2017-2019 (2,548 tours per year) and implement measures such as minimum altitudes and time of day restrictions that are not currently in place.

The agencies conducted public outreach regarding the ATMP. NPATMA requires that the agencies publish notification of the availability of a draft ATMP in the Federal Register for public comment and to hold at least one public meeting for each draft ATMP. The FAA published a notice of availability of the draft ATMP for the Parks on October 15, 2021. Public Meeting/Notice of Availability for Proposed Air Tour Management Plan at Golden Gate National Recreation Area; Muir Woods National Monument; San Francisco Maritime National Historical Park; and Point Reyes National Seashore, 86 Fed. Reg. 57, 471 (Oct. 15, 2021). Golden Gate notified their stakeholder list via email that the draft ATMP was available for public comment and shared a news release regarding the draft ATMP on its website and in a Twitter post. The agencies held the public meeting for the ATMP for the Parks on October 26, 2021 and accepted public comments on this ATMP between October 15 and November 14, 2021. In addition, the attached letter to the California State Historic Preservation Officer finding no adverse effect as a result of the ATMP discusses the consultation process conducted by the agencies, with the FAA acting as lead agency, in compliance with Section 106 of the National Historic Preservation Act. *See Attachment C.*

In sum, the ATMP represents an overall improvement to current conditions. Thus, it is consistent with the Bay Plan with respect to environmental justice and social equity.

For more information on how the ATMP is consistent with the Commission's policies on Public Access, Recreation and Airports, see items number 5 and 6 below.

For all of the reasons set forth in this section, and in the following sections, the agencies have determined the ATMP is consistent with the San Francisco Bay Plan. Additional analysis of potential environmental impacts is presented in the draft Environmental Screening Forms included in Attachments D and E.

3. Environmental Minimization Measures and Species Impacts:

The FAA and the NPS are aware that Golden Gate, San Francisco Maritime, and the San Francisco Bay contain a wide variety of wildlife species and sensitive habitats, including nesting waterbird colonies, peregrine falcon nests, marine mammal haul outs, and many other native species and their habitats. To ensure the ATMP included conditions that would protect these species, the agencies engaged with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) to obtain technical assistance regarding the operating conditions proposed to be included in the ATMP. The agencies presented the draft ATMP outlining the designated routes, minimum altitudes, time of day restrictions, and the limit of the number of air tours conducted to FWS and NMFS. The agencies also discussed available mitigation measures with FWS and NMFS and explained how the ATMP's mitigation measures would avoid and minimize possible effects on listed species and critical habitats. During this discussion, FWS and NMFS expressed no concern with the agencies' No Effect determination. *See Draft Section 7 Endangered Species Act No Effect Determination and Evaluation of Other Species of Concern, Attachment B.* Additional information may be found in the draft Environmental Screening Forms included in Attachments D and E and described in more detail below.

The agencies confirm that the ATMP would not result in any ground disturbing activities or any construction of associated ground infrastructure.

4. Environmental Documentation:

The NPS anticipates applying a documented categorical exclusion to comply with the National Environmental Policy Act. Attachment F is an unsigned draft Categorical Exclusion Documentation Form for the ATMP. The categorical exclusion that the NPS anticipates applying is set forth in the Department of the Interior's Departmental Manual Part 516 § 12.5.A(1) and included in the NPS's NEPA Handbook as categorical exclusion 3.3.A.1.2. This categorical exclusion applies to "[c]hanges or amendments to an approved action when such changes would cause no or only minimal environmental impacts." Interior Departmental Manual, Part 516, § 12.5.A(1). Here, the "approved action" is the IOA issued by the FAA consistent with NPATMA, which was a non-discretionary authorization directed by Congress. NPS plans to use the NPS environmental screening forms to document that there are no or minimal impacts from the ATMP. The NPS plans to separately analyze the impacts of the ATMP on each of the four parks and document the impacts in an environmental screening form for each park. The NPS further will evaluate the extraordinary circumstances in 43 CFR § 46.215. The analysis conducted thus far demonstrates that no extraordinary circumstances apply and the ATMP will not result in significant impacts. Additional analysis can be found in the draft Environmental Screening Forms for Golden Gate and San Francisco Maritime, Attachments D and E. The FAA is performing its own extraordinary circumstances analysis, including under Section 4(f) of the

Department of Transportation Act, codified at 49 U.S.C. § 303(c), and intends to adopt the NPS's categorical exclusion determination pursuant to 40 CFR § 1506.3(d).

5. Public Access and Recreation:

The ATMP will have no impacts to public access within or adjacent to the Parks, including physical and visual access at public areas, vista points, along the shoreline, and areas along the flight routes.

The ATMP will have no impacts to recreation within or adjacent to the Parks, including in public areas, vista points, along the shoreline, and areas along the flight routes. Commercial air tours do offer a recreational experience for those who wish to view the coastal features of Golden Gate and San Francisco Maritime from a different vantage point. Because the number of tours authorized by the ATMP is consistent with the average number of flights from 2017-2019, there are no or minimal changes anticipated to the number of tours offered per year compared to current conditions.

As for impacts to visitors on the ground, it is important to note that the ATMP will allow the agencies to regulate the commercial air tours that are currently permitted under IOA, set an upper limit on the number of tours allowed per year, designate routes and altitudes, and include time of day restrictions identified above. The limitations included in the ATMP are protective of on-the-ground visitor use, experience, and recreational resources while providing an additional recreational opportunity through commercial air tours. While some temporary noise disturbances may occur, these intrusions would be limited in frequency and duration by the ATMP and will be an improvement compared to current conditions. For instance, on days when commercial air tours would occur over Golden Gate noise levels above 52 dBA will occur for less than 20 minutes a day in several small areas directly beneath and adjacent to the routes. *See Draft Environmental Screening Forms, Attachments D and E.* For these reasons the agencies have determined the ATMP is consistent with the San Francisco Bay Plan policies on recreation and public access.

6. Airport Use and Airplane Operations:

The agencies believe that your letter requests information relating to seaplane base use, airport use and airplane operations that is not required by 36 CFR § 930.39(a). However, the agencies have attempted to respond to the extent practicable in order to further inform your review. As explained above and in the agencies' consistency determination, the area that may be regulated by the ATMP is limited by law to the airspace above the area within the boundaries of the Parks and the area outside the Parks' boundaries that is within ½ mile of the boundary of one or more of the Parks. It is also limited to aircraft conducting commercial air tours that are flying under 5,000 ft. AGL.

The Commission's August 30, 2022, letter requests information regarding the Seaplane Adventures Seaplane and Heliport Base located at 242 Redwood Highway, Mill Valley in Marin County. The seaplane base is more than ½ mile outside the boundaries of all of the Parks and thus air tour operations in its vicinity are not regulated or regulable by the ATMP. The agencies'

understanding is that flights by the air tour operators that originate from this base are authorized by a use permit issued by Marin County. Further, the Marin County permit is not limited to commercial air tour operations regulable under NPATMA. Flights that do not meet the definition of a commercial air tour are not regulated by NPATMA, this would include general aviation flights and flights outside of the area regulable under the ATMP.

The Commission's August 30, 2022, letter also requested information regarding any other airports where commercial air tours may originate. Based on reporting data the operators submitted to the agencies, San Francisco Helicopters also conducts tours that originate out of San Francisco International Airport, as well as Commodore Seaplane Base and Heliport. It is important to note that the ATMP would not authorize operators to originate commercial air tours at the seaplane base or any airport—its scope is limited to overflights over the Parks and the area ½ mile outside their boundaries.

The ATMP does not allow for any increases in the number of commercial air tours, regardless as to what location they may originate from. As noted above, the ATMP would authorize a total of 2,548 commercial air tours per year over Golden Gate and San Francisco Maritime—not the 5,090 currently authorized under IOA. Any increase in the number of commercial air tours conducted per year from the 2,548 authorized by the ATMP would require an amendment to the ATMP and additional environmental compliance. In addition to the authorization provided by the ATMP to conduct commercial air tours in the area regulated by the ATMP, operators would need to have appropriate permissions to operate from the facilities from which the flights originate or at which they land. As the ATMP does not authorize any ground disturbing activities, or even the use of any specific airport or base, it is thus consistent with the Bay Plan. Although the frequency of air tours over San Francisco Maritime and Golden Gate is not limited by the ATMP because the ATMP authorized the average number of flights that occurred annually during the three-year period from 2017 to 2019, the frequency of flights over these parks is unlikely to increase, given the annual limits in the ATMP.

The agencies reviewed the Richardson Bay Environmental Protection Association's letter requesting that the Commission conduct an environmental review of the Seaplane Adventures Seaplane and Heliport Base for lead and other toxic substances. The agencies do not have records responsive to this request to share with the Commission that could inform this review. The FAA, however, would like to provide information on two integrated initiatives focused on safely transitioning aircraft away from leaded fuel: The Piston Aviation Fuels Initiative (PAFI) <https://www.faa.gov/about/initiatives/avgas/>, and the FAA-industry partnership to Eliminate Aviation Gasoline Lead Emissions (EAGLE) <https://www.faa.gov/unleaded>. PAFI provides the testing and evaluation of unleaded aviation gasoline (avgas) candidates and determines if they are qualified as a replacement for leaded avgas. The EAGLE initiative focuses on transitioning the entire industry sector to a lead-free fuel, including fuel production, distribution, and infrastructure. In addition, FAA collaborates and coordinates with the Environmental Protection Agency on lead reduction opportunities from the use of leaded aviation gasoline while these fuel replacement programs are in development. This collaborative work will include responding to National Academy of Sciences recommendations regarding options for reducing lead emissions from these aircraft. <https://www.nap.edu/catalog/26050/options-for-reducing-lead-emissions-from-piston-engine-aircraft>.

7. Interested Parties:

In your letter you request a “complete list of interested parties” consisting of a “list of adjacent property owners and other parties known to be interested” in the ATMP. This information is not required by 36 CFR § 930.39(a) and we are not able to provide such information regarding private persons as doing so would compromise our ability to protect such information from public disclosure. In addition, since the action is to implement an ATMP authorizing commercial air tours, there are no adjacent property owners. However, in an effort to aid your review, please see Attachment G. Further, the Section 106 consultation process included engagement with the State Historic Preservation Officer, the Federated Indians of Graton Rancheria, current operators, relevant government entities, and other consulting parties as detailed in Attachment C. Contact information for the consulting parties is included in Attachment G.

TAMARA A SWANN

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SWANN
Date: 2022.09.29 11:40:06 -07'00'

Tamara A. Swann
Regional Administrator (Acting)
Western Pacific Region
Federal Aviation Administration

CAREY
FEIERABEND

Digitally signed by
CAREY FEIERABEND
Date: 2022.09.29
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Carey Feieraband
Acting Superintendent
Golden Gate National Recreation Area
National Park Service



Digitally signed by PAUL DEPREY
Date: 2022.09.29 14:40:51 -07'00'

Paul DePrey
Superintendent
San Francisco Maritime National Historical
Park
National Park Service

Attachments

- A. D.C. Circuit Court of Appeals orders and filings
- B. Draft No Effect Determination Memorandum
- C. Finding of Adverse Effect Letter to the California State Historic Preservation Officer
- D. Draft Environmental Screening Form for San Francisco Maritime National Historical Park
- E. Draft Environmental Screening Form for Golden Gate National Recreation Area
- F. Draft Categorical Exclusion Documentation Form
- G. Stakeholder lists (organizations only)
- H. Maps

San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190

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October 13, 2022

Transmitted Via Electronic Mail

Federal Aviation Administration, Western Pacific Region
777 S. Aviation Blvd., Suite 150
El Segundo, CA 90245
ATTN: Tamara A. Swann, Acting Regional Administrator

Golden Gate National Recreation Area, National Park Service
Building 201, Fort Mason
San Francisco , CA 94123
ATTN: Carey Feierabend, Acting Superintendent

San Francisco Maritime National Historical Park, National Park Service
2 Marina Boulevard,
Building E, 2nd Floor
San Francisco , CA 94123
ATTN: Paul DePrey, Superintendent
Via email: <Paul_DePrey@nps.gov>

SUBJECT: National Parks Air Tour Management Program (BCDC Permit Application No. C2022.004.00)

Dear Ms. Swann, Ms. Feierabend, and Mr. DePrey:

Thank you for your request for Commission concurrence with the federal consistency determination received in this office on August 16, 2022 and with supplemental information provided on September 29, 2022, on behalf of the National Park Service (NPS), in cooperation with the Federal Aviation Administration (FAA), to develop an Air Tour Management Plan (ATMP) for Golden Gate National Recreation Area, Muir Woods National Monument, San Francisco Maritime National Historical Park, and Point Reyes National Seashore (the Parks).

As a portion of the proposed project is located in the San Francisco Bay and has the potential to affect the Commission's San Francisco Bay Coastal Zone, the project is being evaluated for consistency with the federal Coastal Zone Management Act (CZMA), as amended, and the Commission's federally approved Coastal Management Program for San Francisco Bay, which includes the McAteer-Petris Act, the Suisun Marsh Preservation Act, the Commission's *San Francisco Bay Plan* (Bay Plan), and the Suisun Marsh Protection Plan (SMPP).

Ms. Swann, Ms. Feierabend, and Mr. DePrey
National Parks Air Tour Management Project
BCDC Permit Application No. C2022.004.00

Page 2
October 13, 2022

Based on BCDC staff review of your submittal, we have determined that the submittal contains comprehensive information sufficient to support NPS and the FAA's statement of consistency as required per 15 CFR section 930.39(a) for purposes of initiating BCDC's 60-day consistency determination review period per 15 CFR section 930.41(a). Pursuant to 15 CFR section 930.41(b), BCDC invokes its one-time right to a 15-day extension to the 60-day review period, considered to have begun at the receipt of supplemental information provided September 29, 2022, to allow BCDC staff more time to conduct a thorough analysis of the proposed activities for consistency with BCDC's enforceable state policies under its certified Coastal Management Program (CMP). Therefore, BCDC will complete its consistency review by December 13, 2022. Please let us know who best to contact if any questions arise as we are conducting the consistency review.

If you have any questions, please do not hesitate to contact me at 415-352-3665 or sam.fielding@bcdc.ca.gov.

Sincerely,

DocuSigned by:

2AA0DD5043E4453...

SAM FIELDING
Coastal Program Analyst

SF/ra

cc: Holly Wyer, California Coastal Commission, <holly.wyer@coastal.ca.gov>
Alison Forrestel, Golden Gate National Recreation Area, <alison_forrestel@nps.gov>
Bert Ho, San Francisco Maritime National Historical Park, <Bert_Ho@nps.gov>
Brannon Ketcham, Point Reyes National Seashore, <Brannon_Ketcham@nps.gov>

CALIFORNIA COASTAL COMMISSION

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November 21, 2022

Tamara A. Swann
Regional Administrator (Acting)
Western Pacific Region
Federal Aviation Administration
Via email: Tamara.A.Swann@faa.gov

Craig Kenkel
Acting Superintendent
Golden Gate National Recreation Area
National Park Service
Via email: Craig_Kenkel@nps.gov

Anne Altman
Acting Superintendent
Point Reyes National Seashore
National Park Service
Via email: Anne_Altman@nps.gov

Re: Consistency Determination CD-0005-22, (Air Tour Management Plan)

Dear Administrator Swann, Acting Superintendent Kenkel and Acting Superintendent Altman,

On November 17, 2022, the California Coastal Commission concurred with the above-referenced consistency determination submitted by the Federal Aviation Administration and National Park Service for adopting and implementing an Air Tour Management Plan for Golden Gate National Recreation Area and Point Reyes National Seashore. The Commission found the proposed activities to be consistent with the California Coastal Management Program.

If you have questions, please feel free to contact Holly Wyer at holly.wyer@coastal.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Cassidy Teufel".

Cassidy Teufel
Manager
Energy, Ocean Resources, and Federal Consistency Division

CC

Eric Elmore, Federal Aviation Administration (eric.elmore@faa.gov)

Michelle Carter, National Park Service (michelle_carter@nps.gov)

Vicki Ward, National Park Service (vicki_ward@nps.gov)

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Alison Forrestel, Golden Gate National Recreation Area (alison_forrestel@nps.gov)

Brannon Ketcham, Point Reyes National Seashore (brannon_ketcham@nps.gov)

David Kaiser, National Oceanic and Atmospheric Administration (david.kaiser@noaa.gov)

Kerry Kehoe, National Oceanic and Atmospheric Administration (kerry.kehoe@noaa.gov)