DETERMINATION OF NO IMPAIRMENT

Golden Gate National Recreation Area
Alcatraz Ferry Embarkation — Fort Baker Improvements

August 2017

IMPAIRMENT PROHIBITION

The National Park Service (Park Service) *Management Policies 2006* require analysis of potential effects to determine if actions would impair park resources.[1] The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts to park resources and values. However, the laws give the Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of the park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise.

A prohibited impairment is an impact that, in the professional judgment of the responsible Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of these resources or values.[1] Whether an impact meets this definition depends on the particular resources that will be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other past or planned future impacts.

An impact on any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute an 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
- Key to the natural or cultural integrity of the park
- Identified as a goal in the park's general management plan or other relevant Park Service planning documents

An impact will be less likely to constitute impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated. An impact that may, but will not necessarily, lead to impairment may result from visitor activities; Park Service administrative activities; or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.

[1] National Park Service, *Management Policies 2006* (Washington, D.C.: U.S. Government Printing Office, 2006).

The park resources and values that are subject to the no impairment standard 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.

IMPAIRMENT DETERMINATIONS FOR THE SELECTED ALTERNATIVE

This determination of non-impairment has been prepared for the Fort Baker improvements described in the *Alcatraz Ferry Embarkation Final Environmental Impact Statement* (Final EIS).[2] The following topics from the Final EIS were considered as measures applicable to evaluation of the selected action for potential impairment:

- Air Quality
- Noise and Soundscapes
- Geology and Soils
- Water Quality
- Floodplain Values
- Wetland Resources
- Terrestrial and Aquatic Biological Resources
- Special Status Species and Habitats
- Natural and Cultural Landscapes
- Paleontological Resources
- Archaeological Resources
- Historic Structures and Buildings
- Ethnographic Resources
- Enjoyment of Park Resources

This determination of non-impairment does not include the following impact topics analyzed in the Final EIS: seismicity, and transportation and circulation. This is because impairment findings relate to park resources and values, and these topics are not generally considered to be park resources or values according to the 1916 Organic Act. Therefore, they cannot be impaired as can other park values and cultural and natural resources.

[2] National Park Service, *Alcatraz Ferry Embarkation Final Environmental Impact Statement* (National Park Service, 2017).

Air Quality

Air quality plays an important role in supporting valuable wildlife resources and recreational values within the Golden Gate National Recreation Area (GGNRA). Protecting air quality is necessary to fulfill the purposes of the Park and to protect its natural resources.

Construction and operation of the selected action would result in minor, short-term air quality impacts during construction, and minor emissions from the weekend ferry service over the long-term. Impacts will be mitigated through ensuring current licensing of equipment and implementing best management practices, including implementing the mitigation measures Air-MM-1 through Air-MM-4 as described in the Record of Decision. Thus, the selected action will not result in the impairment of air quality.

Noise and Soundscapes

The natural soundscape is an important resource of the Park. The soundscape at Fort Baker currently includes natural sounds as well as human-generated noise. Protecting the natural soundscape is necessary to both fulfill the purposes of the Park and protect the Park's natural values, and is important in maintaining the natural integrity of the Park.

Localized, minor short-term impacts will occur due to project construction. These effects will be minimized through implementation of mitigation measure Noise-MM-1 (Noise-MM-2 is only applicable to Pier 31½). Occasional idling of ferries is not expected to impact the soundscape at Fort Baker. Thus, the selected action will not result in the impairment of the soundscape.

Geology and Soils

Local geologic and soil conditions are integral to the character of the Park, helping determine where native vegetative communities occur, and affecting the area's productivity, drainage patterns, erosion, and structural support for facilities such as park trails. Soils generally take thousands of years to develop, while geologic conditions are influenced by geologic processes, including seismicity. Soil degradation and geologic changes can affect plants and wildlife, as well as the visitor experience. To the extent that geology and soils are linked to the hydrology, vegetation, and habitats of the Park, they are necessary to fulfill the purposes of the Park and are important to maintaining its natural integrity.

Under the selected action, minor excavation of soils may occur in a few localized areas, primarily due to grading to construct the access pathway. The project would have no effect on geologic conditions or processes within the Park. Therefore, the selected action will not result in impairment of soils or geologic resources.

Water Quality

Water quality is important for supporting vegetation and terrestrial and marine wildlife in the Park. Because changes in water quality can affect the Park's unique vegetation and wildlife (thus affecting the Park's natural, wildlife, marine, ecological, and scientific values), maintaining good water quality is necessary to fulfill the purposes of the Park and is important for natural integrity.

Any potential impacts on water quality during construction would be short-term, and conditions would quickly return to baseline levels after construction activities are completed. The Park Service would apply for and obtain all local, state, and federal permits, and would comply with any permit requirements, including any agency-required water quality monitoring requirements that may be imposed. Given the localized nature of impacts, construction methods, and compliance with all laws and regulations, there would be negligible water quality impacts from the proposed project. As described in the Final EIS, ferry operations would continue to occur in adherence with plans and policies designed to address potential water quality impacts. There would be no fueling, loading or unloading of trash or supplies, or pumping of waste at Fort Baker.

Therefore, water quality impacts from operations would be negligible, and the selected action will not result in impairment of water quality.

Floodplain Values

As described in the Final EIS, the proposed improvements at Fort Baker would not expand the size of the site or otherwise increase exposure of individuals to flood risk at Fort Baker under this or other sea level rise scenarios as projected by the U.S. Geological Survey. Planned improvements at the site would not increase the elevation of the bulkhead. Floating elements, such as new gangway and float structures, would not be impacted, and would be designed to accommodate changes in sea level. The Project would make strategic adaptations to mitigate 100-year flood events.

Wetlands Resources

No wetlands occur within the footprint of the proposed pier improvements, and the project is not anticipated to impact eelgrass. Thus, the selected action will not result in an impairment of wetlands.

Terrestrial and Aquatic Biological Resources

Wildlife is a significant feature of the National Park. The study area at Fort Baker primarily includes the existing pier structure, which provides habitat to encrusting organisms within the intertidal zone, and adjacent open waters. **The** neighboring Horseshoe Bay also contains sandy-gravel beaches and rocky intertidal habitats, and an offshore population of eelgrass. Upland habitat within the study area is best described as "Urban/Disturbed" as a result of historic use and landscape plantings.[3] Developed areas of Fort Baker are bordered on three sides by undeveloped lands managed by the Park Service, and by Horseshoe Bay to the south. The hillside immediately west of the pier consists of coastal scrub dominated by coyote brush (*Baccharis pilularis*) and California sagebrush (*Artemisia californica*). Planted stands of Monterey cypress (*Cupressus macrocarpa*) are also located near the pier.[3] Protection of all of the Park's wildlife is necessary to fulfill the purposes of the Park regarding protection of the nationally significant natural, wildlife, and scientific values of the Park; and wildlife is key to maintaining the Park's natural integrity.

Impacts to terrestrial biological resources would be minimal and limited to disturbance during construction. Minor displacement of ruderal, disturbed, and ornamental grass habitats would occur resulting from construction of the proposed improvements. Removal of this vegetation would result in no impacts because of the nonsensitive nature of the habitat, and because of the small area of impact and the quality of the vegetation. Common wildlife species, if present, are expected to tolerate noise levels generated by Park Service and concessioner operations, although they may be temporarily disturbed by construction-related noise, particularly from pile installation activities. Implementation of mitigation measure Noise-MM-1, which involves methods for reducing construction-related noise, would reduce the magnitude of this impact.

A net increase of approximately 2,100 square feet of overwater coverage would occur as a result of the selected action. Shading from docks and piers has historically been viewed as relatively neutral with respect to fish communities. Installation of additional piles would increase the amount of habitat available for encrusting communities and would likely improve foraging opportunities for fish species. Ferry service operations at Fort Baker would be intermittent and low-level relative to existing vessel activity in the Bay. Therefore, long-term impacts on fish from Fort Baker limited ferry service would be negligible. No eelgrass has been found in the footprint of the proposed project.

Additionally, underwater sound pressure generated by construction, including pile driving, may temporarily affect fish behavior. In general, fish are likely to be temporarily disturbed or leave the immediate Project area

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[3] National Park Service, *Fort Baker Plan Final Environmental Impact Statement* (National Park Service, 1999). Available from: http://parkplanning.nps.gov/document.cfm?parkID=303&projectID=20244&documentID=20847.

during certain phases of construction. Mitigation measures Aquatic-MM-1 and Aquatic-MM-2 would be implemented to reduce impacts. As recommended during consultation with the National Marine Fisheries Service (NMFS), sound monitoring during pile driving would also occur, and additional sound attenuation methods (e.g., cushion blocks) would be implemented as-needed. Thus, turbidity and sound pressure impacts during the construction phase would be minor, short-term, and localized.

Based on the analysis presented above, and with implementation of the proposed mitigation measures, the selected action will not result in impairment of the Park's wildlife or the processes and conditions that sustain them.

Special Status Species and Habitats

The Park supports many plant and animal species, some of which are also federally listed as threatened or endangered. The Park also provides habitat to bird species protected under the Migratory Bird Treaty Act (MBTA) and marine mammals protected by the Marine Mammal Protection Act (MMPA). The Central Bay, including the study area, is designated essential fish habitat (EFH) for assorted fish species managed under the Coastal Pelagic, Pacific Groundfish, and Pacific Coast Salmon Fishery Management Plans (FMPs). Eelgrass, which has been afforded special management considerations, has been observed within Horseshoe Bay adjacent to the study area at Fort Baker. The Fort Baker waterfront area is within critical habitat areas for winter- and spring-run Chinook salmon, coho salmon, steelhead trout, and green sturgeon. Protecting these species and habitats fulfills the Park's purpose to protect natural, ecological, wildlife, and scientific values, and safeguarding these species and habitats is also important to maintaining the Park's natural integrity.

The selected action may result in minimal and localized impacts to special status bird species, including the federally endangered California least tern (*Sterna antillarum browni*) and birds protected under the MBTA. The California least tern may frequent Horseshoe Bay, adjacent to the project area, but nesting habitat is not present. Thus, the Park made a "no effect" determination for the least tern. Birds protected under the MBTA may nest in trees, shrubs, or buildings within the study area. Construction would likely generate noise and increased turbidity in the immediate area, which may temporarily affect bird behavior, including but not limited to foraging. Mitigation measure Noise-MM-1, which entails use of sound attenuation methods and timing restrictions, would be implemented to reduce potential noise impacts during construction.

Potential construction impacts on Endangered Species Act (ESA)-listed fish species and their critical habitat, or fish species associated with EFH, would include temporary minor increased suspended sediment levels and turbidity relative to background conditions, and the potential for temporary behavioral disturbance due to increased underwater sound pressure levels from pile installation. Underwater noise may similarly disturb marine mammals, although these species would be expected to avoid the project area. Project-related disturbance would be expected to have no more than a minor effect on individual animals' range and no effect on migration, breathing, nursing, breeding, feeding, sheltering, or populations of these species. With implementation of mitigation measures Aquatic-MM-1 and Aquatic-MM-2, the selected action would result in residual negligible to minor impacts during construction with respect to EFH, aquatic ESA species and their critical habitat, and marine mammals. The Park Service has completed consultation with NMFS for EFH and ESA issues, and NMFS has accepted these measures and findings.

As described in the preceding section, the permanent net increase in overwater coverage and installation of additional piles would have negligible long-term impacts to fish and aquatic habitats. This conclusion also applies to special status aquatic resources.

Based on the analysis presented above, and with implementation of the proposed mitigation measures, the selected action will not result in impairment of special status species or habitats in the Park.

Natural and Cultural Landscapes

The Park contains a cultural landscape that contributes to the Park's visual resource values. The Fort Baker Cultural Landscape is a designed cultural landscape, significant for the coastal defense history of the site. Protecting the cultural landscape is necessary to both fulfill the purposes of the Park and protect the Park's historic values; and is important in maintaining the cultural integrity of the Park. No natural landscapes have been identified at Fort Baker.

The selected action would have minimal effects on the cultural landscape. The Project consists of repairs and upgrades to the existing Mine Wharf pier substructure, and construction of a small interpretive kiosk in the upland area near the wharf. The Mine Wharf is on the List of Classified Structures as FB415 and is a contributing property to the Fort Baker, Barry, and Cronkhite National Historic District (discussed further below). Treatment guidelines in the 2005 *Fort Baker Cultural Landscapes Report* prioritize the preservation of "work-related industrial development around Horseshoe Cove including breakwater, seawalls, wharves, ramps, and ship repair structures which define the industrial character of the waterfront," and note that "management of the waterfront focuses on redevelopment for recreational use, within the general framework of preservation, of the contributing resources and character of the cultural landscape as a working waterfront."

Retaining and rehabilitating the historic Mine Wharf is consistent with the cultural landscape treatment guidelines. Replacing materials in-kind will preserve the industrial character of the wharf. Further, rehabilitating the wharf will prevent it from falling into disrepair, extending the life of the historic structure. Though some historic elements will be replaced with modern materials, the effect to the structure will ultimately be beneficial. The interpretive kiosk is a small, reversible structure that will be designed in keeping with other interpretive materials at Fort Baker. It will not impact the cultural landscape.

Paleontological Resources

One of the purposes of the Park is to protect the nationally significant natural and scientific values of the Park. Fort Baker hosts outcroppings of the Franciscan complex which contains fossils of radiolarian, "a single-celled protistan marine organism...considered a very common fossil in the Marin Headlands."[4] The proposed project does not include any work near the outcroppings or any other location where in situ fossils might occur. No impacts on paleontological resources are expected.

Archeological Resources

Site CA-MRN-648 has been assigned to a group of 55 structures and archeological sites in east Fort Baker. They are all historic, and include various infrastructure elements and debris concentrations. Some of the features are also part of the National Historic District described below. The nearest features of site CA-MRN-648 to the project area are Feature 23, a fuel tank and pipe; and Features 8-G7, 8-R6, 8-FF1, and 8-R7, manhole covers. All of these features are more than 50 feet away from any proposed project work, and will not be affected. There will be some limited ground disturbance within the limits of the site, where the interpretive kiosk will be placed near the landward end of the wharf. The area is currently a sidewalk, and ground disturbance will not extend deeper than previous disturbance for sidewalk construction. A Post-Review Discovery Plan will be developed and maintained on site, in case archeological materials are discovered during construction (mitigation measure Cultural-MM-2). Based on these findings, and with implementation of the proposed mitigation measure, the selected action will not result in impairment of archeological resources.

Historic Structures and Buildings

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[4] National Park Service, *Draft Environmental Impact Statement, Marin Headlands and Fort Baker Infrastructure and Management Plan* (National Park Service, 2007). On file at GGNRA, San Francisco, California.

Project work at Fort Baker, as described above, includes repairs and upgrades to the existing Mine Wharf pier substructure and construction of a small interpretive kiosk. Construction of the kiosk will not affect any of the structures that contribute to the significance of the Historic District. Repairs to the Mine Wharf will consist of replacement installation of a new gangway and float (including eight new piles). Additional existing piles will be repaired. Damaged concrete and reinforcing bars will be repaired and replaced on portions of the deck soffit and bulkhead wall. Fender piles, the asphalt paving on top of the deck, and the existing guardrails will be replaced. The float and gangway will be reversible and will not affect the historic fabric. As described above for the Fort Baker Cultural Landscape, replacing materials in-kind will preserve the industrial character of the wharf, and rehabilitating the wharf will prevent it from falling into disrepair. This is consistent with the Secretary of the Interior's Standards for Rehabilitation of Historic Properties (mitigation measure Cultural-MM-1). Based on these findings, and with implementation of the proposed mitigation measure, the selected action will not result in impairment of historic structures and buildings.

Ethnographic Resources

Ethnographic resources are landscapes, objects, plants and animals, or sites and structures that are important to a people's sense of purpose or way of life. When Euroamerican settlers first arrived in the region, Miwok people inhabited the Marin Headlands. Miwok people are now members of a number of federally recognized tribes. No specific ethnographic resources have been formally identified at Fort Baker. Archaeological materials related to Native American use and habitation may be ethnographic resources. A Post-Review Discovery Plan will be developed and maintained on-site, in case archeological materials are discovered during construction (mitigation measure Cultural-MM-2). Therefore, with implementation of the proposed mitigation measures, the selected action will not result in the impairment of ethnographic resources.

Enjoyment of Park Resources

The overall purpose of the selected action is to increase connectivity within the GGNRA and provide enhanced opportunities for visitation at Fort Baker. During construction of the selected action at Fort Baker, access to the pier and the construction footprint may be temporarily restricted. During ferry operations, portions of the pier may also be temporarily restricted. Access restrictions would be limited to the minimum required to maintain safety for Park visitors and employees. The selected action would, however, address safety, access, and structural integrity deficiencies present at the existing pier, and allow improved public access to Fort Baker. Therefore, the selected action would not result in the impairment of enjoyment of Park resources, and would provide a long-term improvement to enjoyment of Park resources.

SUMMARY

The National Park Service has determined that implementation of the selected alternative will not constitute an impairment of the resources or values of the GGNRA. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the Alcatraz Ferry Embarkation Final Environmental Impact Statement, comments provided by the consulting agencies and the general public, and the professional judgement of the decision maker guided by the direction of the NPS Management Policies 2006.