

# FINDING OF NO SIGNIFICANT IMPACT

## SUSTAINABLE ACCESS PROJECT

National Park Service, US Department of the Interior  
Golden Gate National Recreation Area  
Muir Woods National Monument

May 2017

### INTRODUCTION

Golden Gate National Recreational Area, a unit of the National Park Service (NPS), prepared this *Finding of No Significant Impact* for the Sustainable Access Project at Muir Woods National Monument (monument) in accordance with the 1969 National Environmental Policy Act (NEPA) and NPS NEPA guidance in Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*. The *Finding of No Significant Impact*, combined with the *Muir Woods National Monument Sustainable Access Project Final Environmental Assessment* (final environmental assessment), comprise the full and complete NEPA record of the analysis of environmental impacts and the NPS decision-making process on identifying an implementation strategy.

The *Finding of No Significant Impact* summarizes the alternatives presented to stakeholders and interested members of the public for review and comment and includes the rationale for selecting alternative 3 from the final environmental assessment for implementation. The document also lists the specific actions the National Park Service will follow when implementing the selected alternative and explains the reasoning behind the statement that the alternative will result in no significant impacts on the environment as defined by NEPA regulations (42 Code of Federal Regulations [CFR] Parts 1500-1508) and NPS NEPA guidance in Director's Order 12. The *Finding of No Significant Impact* and the final environmental assessment will guide future actions for the implementation of alternative 3. In keeping with the NPS *Management Policies 2006*, a *Determination of No Impairment* for the selected alternative was also prepared.

### PURPOSE OF AND NEED FOR ACTION

The purpose of taking action is to improve visitor experience and safety by providing appropriate infrastructure, promote the restoration of natural resources and processes, and preserve cultural resources. This will help the Golden Gate National Recreation Area achieve, in part, the objectives identified in the *Record of Decision* for the *Golden Gate National Recreation Area and Muir Woods National Monument Final General Management Plan / Environmental Impact Statement*.

The project is needed to address deferred maintenance and improve the design and placement of parking areas and visitor amenities and to resolve long-standing problems with traffic congestion that detracts

from visitor experience, creates the potential for safety concerns, and negatively affects stormwater management and water quality in the Redwood Creek Watershed. The transportation system dates to the 1960s when standards for environmental protection differed from current standards. Currently, some visitors encounter a lack of pedestrian walkways in areas frequented by tour buses, shuttles, and privately owned vehicles. Additionally, the National Park Service needs to update existing stormwater management infrastructure in the project area to implement best management practices and comply with federal law, policy, and regulation.

## OBJECTIVES IN TAKING ACTION

The following objectives are grounded in the purpose of, and need for, action and the monument's enabling legislation and vision described in the *Golden Gate National Recreation Area and Muir Woods National Monument General Management Plan / Environmental Impact Statement*.

- Visitor Experience and Safety
  - Provide safe and accessible pedestrian routes from all parking areas to the Entry Plaza and connecting trails, incorporating opportunities for education and interpretation.
  - Provide visitor amenities closer to all parking areas.
  - Meet accessibility standards required under the Architectural Barriers Act (ABA) of 1968.
- Transportation
  - Reconfigure parking areas to improve operational efficiency and provide sufficient parking capacity for privately owned vehicles (no more than 232 spaces) as approved in the *Muir Woods National Monument Reservation System Finding of No Significant Impact*.
  - Provide sufficient capacity for buses, shuttles, and authorized commercial use vehicles to drop-off and pick-up passengers, as approved in the *Muir Woods National Monument Reservation System Finding of No Significant Impact*.
  - Reduce vehicle and pedestrian conflicts in all parking and transit areas.
- Natural Resources
  - Protect water quality in the Redwood Creek Watershed by improving stormwater and wastewater management infrastructure in the project area.
  - Design infrastructure improvements in a manner that anticipates and encourages future restoration or enhancement projects for plant and animal communities in the watershed.
- Cultural Resources
  - Protect the fundamental resources that contribute to the national significance of the monument.
  - Design infrastructure improvements to be compatible with the Muir Woods cultural landscape and minimize impacts on the property listed in the National Register of Historic Places (national register).
  - Preserve and protect cultural resources to highlight the interpretive and educational values and provide, wherever possible, access to these resources.

## **SELECTED ALTERNATIVE AND RATIONALE FOR DECISION**

The National Park Service has selected Alternative 3, Nursery Parking and Sustainable Access Improvements, as the alternative for implementation because it best meets the purpose of, and need for, action without causing significant impacts on natural and cultural resources. The selected alternative will modify the Entry Plaza, Main Lot, Annex Lot, Conlon Lot, and the former Nursery Area, but will maintain a total of 232 parking spaces for privately owned vehicles.

### **Entry Plaza and Parking Areas**

The National Park Service will remove all parking from the Entry Plaza and will rehabilitate approximately 0.4 acre of the plaza with native riparian vegetation. The existing restroom near Redwood Creek will be relocated outside the erosion hazard area and be sized to accommodate peak season visitation, as approved in the *Muir Woods National Monument Reservation System Finding of No Significant Impact*. The Entry Plaza will be furnished with new interpretive media telling the story of natural, historic, and cultural resource stewardship at the monument.

Parking for visitors with disabilities will be relocated to the Main Lot, with 11 available spaces. The Main Lot will maintain its existing footprint but will be restriped to meet ABA-parking requirements and provide 18 parking spaces for buses, shuttles, and commercial use vehicles. The Annex Lot will be re-graded, reconfigured, and restriped to accommodate 11 new spaces, for a total of 125 parking spaces for privately owned vehicles. The Annex Lot will be designed with one-way aisles and a single entry and exit at its southern end to promote efficient vehicular circulation. The Conlon Lot will be widened 6 to 8 feet to accommodate a two-way driveway and 48 parking spaces for privately owned vehicles. Some utility poles and electrical lines in the lot will be relocated as a result of the expansion. Existing roadside parking will be eliminated on the east side of Muir Woods Road between Conlon Avenue and the Muir Woods Road Bridge, and the area will be revegetated with plants native to the monument.

The two lift stations located in the former Nursery Area and northeast of the Conlon Lot will be replaced with a single modern 25,000 gallon lift station located near the former Nursery Area. An underground power line and force main line will be installed to connect the new lift station to the existing sewer line beside the Conlon Lot, and new restrooms will be included in the lift station's design. The decommissioned lift station and structures in the former Nursery Area will be removed, and the area will require less than 0.4 acre of development. The decommissioned lift station in the Conlon Lot will be used for storage.

The former Nursery Area will be developed into a parking lot with 48 parking spaces available for privately owned vehicles. One culvert will be installed during construction to accommodate an existing drainage on site. Impervious asphalt will be used to surface the Nursery Lot, and the lot will be designed with one entrance, one exit, and a single driveway.

### **Stormwater Management Infrastructure**

Engineered stormwater management infrastructure will be used to treat the runoff from the Entry Plaza and all parking lots. Shallow excavated ditches lined with filter strip sand and topped with stone to form a subsurface basin, where water is stored until it infiltrates into the soil, will be used to treat stormwater.

Discharge from this infrastructure will meet the applicable water quality standards, such as those found in the *Bay Area Stormwater Management Agencies Association Post-Construction Manual*, and will not require additional treatment.

## Trails

The portion of the Dipsea Trail passing through the Annex Lot will be realigned to the northwest perimeter of the lot. Additional signs directing visitors to the Entry Plaza and local trails will be installed as a means to improve wayfinding at the monument. A new pedestrian footbridge will be installed at the Redwood Creek crossing roughly 14 feet above the creekbed to match the grade of the Annex Lot.

Visitors parking in the Conlon Lot will access Muir Woods Road via a newly developed pedestrian trail located beside Conlon Creek and will cross Muir Woods Road at the Conlon Avenue intersection by way of a delineated crosswalk.

The segment of existing pedestrian trail along Muir Woods Road between the Main and Nursery Lots will be decommissioned and revegetated with plants native to the monument. A new 6- to 8-foot-wide woodland pedestrian trail between the Annex and Nursery Lots will be developed. The trail will pass along the southern edge of the Annex and Nursery Lots, tie into the Dipsea Trail and Entry Plaza, and contain new interpretive media. The trail may need to be built on fill along the perimeter of the Annex and Nursery Lots if it cannot be developed within their respective footprints. To minimize disturbance, low retaining walls may be constructed and small footbridges built over intermittent drainages along the trail route. The trail will meet all applicable accessibility standards. The final segment of this trail between the Main and Annex Lots will be widened to a maximum of 10 to 12 feet with boardwalks over existing drainages.

## MITIGATION MEASURES

The National Park Service places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the National Park Service will implement the following measures and best management practices while implementing the selected alternative.

### General

- Clearly state all resource protection measures in the construction specifications and instruct workers to avoid conducting activities outside the project area. Limit disturbances to roadsides, culvert areas, and other areas inside the project area.
- Hold a preconstruction meeting to inform contractors about sensitive areas, including natural and cultural resources.
- Delineate construction zones outside existing disturbed areas with flagging and confine all surface disturbance to the construction zone.
- Site staging and storage areas for construction vehicles,

### Responsible Party

NPS – Project Management

NPS – Project Management

NPS – Project Management;  
Contractor

NPS – Project Management

equipment, materials, and soils in previously disturbed or paved areas approved by the National Park Service. These areas will be outside high visitor use areas and clearly identified in advance of construction.

- Require contractors to properly maintain construction equipment to minimize noise and do not allow construction vehicle engines to idle for extended periods. NPS – Project Management
- Remove all tools, equipment, barricades, signs, and surplus materials from the project area upon completion of the project. NPS – Project Management; Contractor

**Visitor Experience, Safety, and Transportation**

**Responsible Party**

- Inform visitors in advance of construction activities via a number of outlets, including the monument’s website, various signs, the visitor center, and bus and shuttle drivers. NPS – Project Management; NPS – Public Affairs
- Review the tour bus permit system to develop a process that requires a permit for all tour buses wishing to service the monument. NPS – Project Management; NPS – Business Management Division
- To the extent practical, schedule work to avoid construction activity and construction-related delays during peak visitation. NPS – Project Management
- Limit construction-related traffic delays resulting from work at pull-offs, within parking lots, and along Muir Woods Road to a maximum of 15 minutes in each direction. NPS – Project Management; Contractor
- Develop provisions for emergency vehicle access through construction zones. NPS – Project Management; Contractor
- Prune low branches along trees lining the southbound side of Muir Woods Road south of the Conlon Lot to improve the sight distance for vehicles attempting to either make a left turn out of the parking lot driveway or make a left turn into the driveway from Muir Woods Road. NPS – Project Management; Contractor
- Post signs on Muir Woods Road warning traffic of the pedestrian crossing at the Conlon Lot both before the intersection and at the intersection (following the latest standards published in the Manual on Uniform Traffic Control Devices). NPS – Project Management; Contractor
- Design the lift station and adjoining restrooms near the Nursery Lot to prevent any unpleasant odors from affecting visitors walking between the Nursey and Annex Lots. NPS – Project Management; Contractor

**Geology and Soils**

**Responsible Party**

- Avoid or minimize disturbance to soils as much as possible. NPS – Project Management; Contractor

- Evaluate existing topsoil for invasive, nonnative plant infestations. NPS – Project Management; Contractor
- Remove topsoil heavily infested with invasive, nonnative plants. Salvage non-infested topsoil, store according to soil conservation guidelines, and replace once construction is complete. NPS – Project Management; Contractor
- Implement erosion control measures that provide for soil stability and prevent movement of soils during rain events (i.e., silt fences and tarps). NPS – Project Management; Contractor
- Aerate any ground surface temporarily disturbed during construction and replant with native vegetation to reduce compaction and prevent erosion. NPS – Project Management; Contractor
- Use the stormwater pollution prevention plan and project specifications for dust control measures within construction areas, including active haul roads and staging areas, and engage a qualified stormwater practitioner to ensure compliance. NPS – Project Management; Contractor

## Vegetation

- Develop a detailed revegetation and rehabilitation plan for enhancing areas disturbed by the project. The primary objective of the plan will be to reestablish a self-sustaining native plant community and ensure soil stability. Grade disturbed areas to natural contours; replace stockpiled topsoil; and mulch, replant, or reseed with native vegetation. Regularly monitor planted areas to determine whether remedial actions such as erosion control; invasive, nonnative plant species control; or replacement plantings are necessary. NPS – Project Management; NPS – Resource Management; Contractor
- Avoid disturbance to particular species such as coast redwood (*Sequoia sempervirens*), California bottlebrush grass (*Elymus californicus*), leopard lily (*Lilium pardalinum*), and California buckeye (*Aesculus californica*) to the greatest extent possible. NPS – Project Management; Contractor
- Prior to construction, survey for rare plants in areas where they may occur in vegetated construction zones. Conduct surveys for state (California Native Plant Society) and locally listed plants that may occur in the project area. If state or locally listed plants are found and cannot be avoided, transplant or collect and propagate seeds before revegetating disturbed areas. Monitor revegetated areas with rare plants for up to three years and take remedial actions to ensure that rare plants are reestablished. NPS – Project Management; NPS – Resource Management; Contractor
- Prevent or minimize establishment and spread of nonnative vegetation, noxious weeds, and spread of diseases by NPS – Project Management; NPS – Resource Management;

## Responsible Party

- having all heavy equipment inspected by NPS biologists for proper level of cleanliness (invasive plant seed) upon entry at the work site
  - minimizing soil disturbance
  - pressure washing vehicles
  - covering haul vehicles
  - limiting vehicle and equipment parking in the project area
  - obtaining all fill, rock, or additional topsoil from the project area or obtaining weed-free material from approved sources outside the monument
- Contractor
- Minimize the spread of sudden oak death (*Phytophthora ramorum*) by selected removal of infected trees, stream baiting, conducting ground surveys, reducing the amount of standing water on high use trails, and advising visitors to remove mud from their boots before embarking on established trails.
- NPS – Project Management; Contractor
- Monitor reclaimed areas annually after construction to determine if reclamation and revegetation efforts were successful.
- NPS – Project Management

**Water Resources and Hydrologic Processes**

**Responsible Party**

- Comply with and meet all relevant requirements under the Clean Water Act, including management of stormwater-related non-point source pollutants under the National Pollutant Discharge Elimination System.
- NPS – Project Management; Contractor
- Implement best management practices for drainage and sediment control to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas. These practices may include, but are not limited to, silt fencing, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas to minimize sedimentation and turbidity impacts as a result of construction activities. Do not use plastic materials. Leave erosion control measures in place at the completion of construction to avoid adverse impacts on water resources, after which time NPS staff will be responsible for maintenance and removal.
- NPS – Project Management; Contractor
- Use qualified NPS staff or certified wetland scientists to identify and clearly mark wetlands before construction work. Perform construction activities with caution to prevent damage caused by equipment, erosion, siltation, or pollutant discharges.
- NPS – Project Management; Contractor

## Threatened and Endangered Species

## Responsible Party

- Prior to any construction-related activities, require a training session for all contractors, partners, and NPS staff participating in project-related activities in the project area. Have a qualified biologist conduct the training to familiarize personnel with sensitive resources in the project area. Provide personnel with a brief life-history and physical description of coho salmon (*Oncorhynchus kisutch*), steelhead trout (*Oncorhynchus mykiss*), northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), California red-legged frog (*Rana draytonii*), and other sensitive wildlife in the area. Include staff resource contact information; identification of sensitive resources; the limits of the project area; general best management practices; and appropriate actions to take upon encountering species-status species or other wildlife in the training. Have all attendees sign an attendance sheet along with their printed name, company or agency, email address, and telephone number.  
NPS – Project Management;  
NPS – Resource Management;  
Contractor
- Do not conduct construction activities at night or during dawn or dusk to minimize impacts on wildlife that are most active during these times, such as the northern spotted owl.  
NPS – Project Management;  
Contractor
- Keep all waste and contaminants contained and remove them daily from the work site.  
NPS – Project Management;  
Contractor
- Limit access and/or construction below the ordinary high water from June 15 to October 31 to minimize potential adverse effects on salmonid spawning and movement. The actual work window may be a subset of that time and will depend on the current water year, creek conditions, and timing of salmonid migrations.  
NPS – Project Management;  
Contractor
- Implement measures to minimize potential adverse effects on northern spotted owls.  
NPS – Project Management;  
Contractor
  - If construction commences between February 1 and July 31, conduct pre-construction surveys for northern spotted owls in suitable nesting habitat.
  - If northern spotted owl nests are detected during pre-construction surveys, conduct no work that raises noise levels above ambient background levels within 0.25-mile of an active nest.
  - From August 6 to September 30, limit construction activities that raise noise levels above ambient background levels to daytime hours beginning two hours after sunrise and ceasing two hours before sunset.
  - Within northern spotted owl habitat, avoid disturbance to native trees greater than 10 inches in diameter at breast



height where feasible.

- Implement measures to minimize potential adverse effects on marbled murrelet: NPS – Project Management; Contractor
  - If construction commences between March 15 and September 15, conduct one year of inland pre-construction surveys within 0.25 mile of potential marbled murrelet nesting habitat. Conduct surveys in accordance with *Methods for Surveying Marbled Murrelets in Forests: A Revised Protocol for Land Management and Research*.
  - If marbled murrelet breeding activity or nests are detected during pre-construction surveys, conduct no work that raises noise levels above ambient background levels within 0.25 mile of an active nest.
  - From August 6 to September 30, limit construction activities that raise noise levels above ambient background levels to daytime hours beginning two hours after sunrise and ceasing two hours before sunset.
  
- Implement measures to minimize potential adverse effects on California red-legged frogs: NPS – Project Management; Contractor
  - Engage a qualified biologist to conduct a reconnaissance-level survey for California red-legged frogs within 48 hours prior to starting work in areas that provide potentially suitable habitat.
  - If California red-legged frogs are not found within the project area during the survey, proceed with work. If California red-legged frogs are observed, re-initiate consultation with the US Fish and Wildlife Service to determine appropriate avoidance and minimization measures. Report any sightings and/or injuries of California red-legged frogs to the US Fish and Wildlife Service within 24 hours.
  - Store pipes, conduits, and other materials that could provide shelter for California red-legged frogs above ground level to reduce the potential for animals to climb into the conduits and other materials.
  
- Have a qualified biologist conduct pre-construction surveys for dusky-footed woodrat (*Neotoma fuscipes*) prior to project-related activities. Avoid identified woodrat houses to the maximum extent practicable. If houses are unavoidable, contact the US Fish and Wildlife Service with proposed measures for review and approval prior to construction. NPS – Project Management; Contractor

## Cultural Resources

## Responsible Party

- Identify and delineate archeological resources near the project NPS – Project Management; NPS

area prior to project work. An archeologist who meets the Secretary of the Interior's professional qualification standards will monitor all new ground disturbance.

- Continue to coordinate with the California State Historic Preservation Office throughout the course of the project if unknown cultural resources are discovered as a result of the action.

NPS – Project Management; NPS  
– Cultural Resource Management; Contractor
- In the event that human remains are discovered during construction activities, stop all work on the project and contact the monument's archeologist contacted immediately. As required by law, notify the coroner. Follow all provisions outlined in the *Native American Graves Protection and Repatriation Act* (1990).

NPS – Project Management; NPS  
– Cultural Resource Management; Contractor

## OTHER ALTERNATIVES ANALYZED IN THE ENVIRONMENTAL ASSESSMENT

### Alternative 1: No Action

The no-action alternative describes the present management and existing conditions of the entry area. Under this alternative, the National Park Service would maintain the existing 232 parking spaces for privately owned vehicles and 16 parking spaces for buses, shuttles, and commercial use vehicles and would not make sustainable access improvements to infrastructure at the monument. The Entry Plaza currently contains 9 parking spaces for visitors with disabilities (ABA-compliant) and 2 spaces for privately owned vehicles. The Main Lot contains 27 parking spaces for privately owned vehicles and 16 parking spaces for buses, shuttles, and commercial use vehicles and provides passenger drop-off. The Annex Lot contains 114 parking spaces, and the Conlon Lot contains 49 parking spaces for privately owned vehicles. Existing roadside parking for 31 privately owned vehicles would remain on the east side of Muir Woods Road between Conlon Avenue and the Muir Woods Road Bridge.

The restroom between the Entry Plaza and the Main Lot near Redwood Creek would remain in its existing location. Visitors who park in the Annex Lot, Conlon Lot, or beside Muir Woods Road would continue to use the pedestrian trail adjacent to the road to reach the Entry Plaza. The wooden plank over Redwood Creek along the Dipsea Trail would be used seasonally as a dry season crossing over the creek. Existing culverts would remain in place, and no engineered stormwater management infrastructure would be constructed in the project area. The two lift stations located in the former Nursery Area and northeast of the Conlon Lot would also remain in place.

Visitors would continue to have access to interpretive and educational opportunities through brochures and exhibits available at the visitor center; taking self-guided walks; and attending talks, tours, and programs led by monument staff or in collaboration with local organizations.

## **Alternative 2: Roadside Parking, Annex Lot Expansion, and Sustainable Access Improvements**

Under alternative 2, the National Park Service would modify the configuration of the Entry Plaza, Main Lot, Annex Lot, and Conlon Lot but would maintain the same number of parking spaces for privately owned vehicles as the no-action alternative (232). Improvements made in the Entry Plaza, Main Lot, Conlon Lot, to the Entry Plaza restrooms and stormwater management infrastructure, and along the Dipsea Trail would be the same as those described for the selected alternative.

The Annex Lot would be reconfigured to contain 143 parking spaces for privately owned vehicles. To accommodate 29 new spaces, the National Park Service would expand the lot to the southeast, requiring 0.2 acre of development and restriping. Fill material would be required to level the expansion area, which slopes downhill. Two new culverts would be installed during expansion to accommodate existing drainages on site. Impervious asphalt would be used to surface the Annex Lot, and the lot would be designed with one-way aisles and a single entry and exit at its southern end to promote efficient vehicular circulation.

Existing roadside parking would remain on the east side of Muir Woods Road between Conlon Avenue and the Muir Woods Road Bridge and would contain 30 parking spaces for privately owned vehicles. The roadside parking area would be paved and striped. The existing Muir Woods Road pedestrian trail would remain the primary route to the Dipsea Trail and the Entry Plaza (similar to the no-action alternative).

Under alternative 2, additional restrooms would be constructed near the former Nursery Area to accommodate visitors parking at the southern end of the project area and would be visible from the Conlon Lot. The existing structures in the former Nursery Area would be removed, and portions of the area would be revegetated with plants native to the monument. The two lift stations located in the former Nursery Area and northeast of the Conlon Lot would remain in place.

## **ALTERNATIVES NOT ANALYZED IN THE ENVIRONMENTAL ASSESSMENT**

A number of alternatives were identified during internal and public scoping. During scoping, these options did not meet the purpose of, and need for, action; were not feasible; or had several disadvantages and were not carried forward for detailed analysis in the final environmental assessment. They are described below.

### **Expanded Annex Lot Only**

This alternative would retain the existing footprint of the Entry Plaza and Main Lot and expand the Annex Lot by an additional acre to the southeast to contain parking for 182 privately owned vehicles. The expansion would address the proposed elimination of roadside parking within the monument and revegetate previously disturbed areas, such as the former Nursery Area. The alternative would include significant grading and fill. The National Park Service would remove large stands of coast live oak (*Quercus agrifolia*), Arroyo willow (*Salix lasiolepis*), and California buckeye to implement this alternative. Runoff into Redwood Creek would increase as a result of an additional acre of impervious surface in the Annex Lot. This alternative was considered and not carried forward because it would have considerable adverse impacts on natural resources as a result of its large development footprint and proximity to critical habitat for coho salmon and steelhead trout.

## **Expanded Annex Lot and Nursery Parking**

Under this alternative, the Entry Plaza and Main Lot would be reconfigured to serve as a pedestrian space and drop-off location. The Annex Lot would be expanded by more than an acre to the southeast to contain parking for 107 privately owned vehicles and 18 buses, shuttles, and commercial use vehicles. Roadside parking would be eliminated within the monument entirely. A new lot, approximately 1 acre in size, would be developed in the former Nursery Area to contain parking for 70 privately owned vehicles, and driveway access would be added between the Annex Lot and Nursery Area. This alternative would locate all parking for visitors with disabilities in these lots instead of the Entry Plaza or the Main Lot, resulting in longer travel distances for these visitors. This alternative was considered and not carried forward because of its adverse impacts on large stands of coast live oak, Arroyo willow, and California buckeye. In addition, runoff into Redwood Creek would increase as a result of additional impervious surfaces.

## **Construct a Parking Lot on Panoramic Highway**

This alternative would develop a parking lot on Panoramic Highway. The proposed parking lot could be visually intrusive from the highway, resulting in viewshed impacts, and it would create the potential for adverse impacts from poor traffic circulation because additional traffic would need to access the busy intersection. Furthermore, large buses and shuttles in this area would pose a risk to pedestrians, cyclists, and other automobiles because the alternative would lack the appropriate design to accommodate vehicles of this size. Lastly, adverse effects would likely occur from the increased use of local trails, and further analysis of operations identified additional disadvantages. It was considered and not carried forward because public scoping indicated a lack of public support and the adverse impacts noted above.

## **All Visitors Arrive By Shuttle**

The National Park Service considered this alternative in the 2014 *Golden Gate National Recreation Area and Muir Woods National Monument Final General Management Plan / Environmental Impact Statement*. It was not carried forward because of its unsustainable cost, large displacement of visitors, and the inability of the National Park Service to maintain privately owned vehicle access while protecting monument resources.

## **Convert Muir Woods Road to One-Way Travel**

This alternative was considered and not carried forward because the National Park Service does not own the road. Furthermore, the alternative raised concerns regarding vehicular access for emergency vehicles, the public, and county. By creating only one-way access, public commenters noted that getting into and out of the valley could be difficult for a variety of users.

## **PLANNING AND PUBLIC INVOLVEMENT**

The internal scoping process for the Sustainable Access Project began on October 5, 2011. Internal and external scoping associated with the project has been extensive and has included dozens of internal interdisciplinary team meetings and reviews.

## Public Involvement

Public scoping for the Sustainable Access Project began with a public notice issued on September 4, 2013, and a comment period. The document contained information on the project and was posted on the NPS Planning, Environment, and Public Comment (PEPC) website. The public comment period closed on January 11, 2014.

The National Park Service also held public and agency scoping meetings to gather input on the Sustainable Access Project on September 18, 2013, in Mill Valley, California. The public meeting was held at the Tam Valley Elementary School from 6:30 p.m. to 8:30 p.m. The meeting began with a presentation and was followed by an open house, allowing the public to view display boards and other informational materials describing the project background and project area, the purpose of, and need for, action, and possible issues and impact topics to be analyzed in an environmental assessment for the project. The public also had the opportunity to speak to personnel from Golden Gate National Recreation Area and from the monument to raise concerns and have their questions answered.

During the public scoping comment period, the National Park Service received 177 comments. The majority of these comments concerned potential alternatives and alternative elements, including constructing a parking lot on Panoramic Highway; implementing a reservation system to reduce congestion; enforcing restrictions on roadside parking; and making improvements to existing parking infrastructure. Commenters also provided input on issues concerning visitor experience and safety, including suggestions on how to alleviate these issues. The National Park Service continued to gather information to guide the project in several public meetings and during a gathering of community leaders convened by Congressman Jared Huffman in 2014.

A final public meeting was held on June 27, 2016, at the Tamalpais High School Student Center. At the meeting, NPS staff presented the planning background, an updated analysis of project area resources, and a range of action alternatives. The National Park Service also introduced alternative 3 as the action expected to be identified as the preferred alternative.

The *Muir Woods National Monument Sustainable Access Project Draft Environmental Assessment* was released on the PEPC website for public review and comment on November 4, 2016. The comment period lasted 30 days and closed on December 5, 2016. Copies of the draft environmental assessment were available at the Muir Woods Visitor Center and Golden Gate Dairy and were also distributed to local libraries and community centers, including the Marin County Civic Center Library, Marin City Library, Mill Valley Public Library, Sausalito Public Library, San Rafael Public Library, Muir Beach Community Center, and the Tam Valley Community Services District Office.

The California State Clearinghouse functions as the "State Single Point of Contact" for coordinating state and local review of federal environmental documents. The purpose of the process is to afford state and local participation in federal activities occurring within California. The National Park Service submitted 15 copies of the draft environmental assessment and a *Notice of Completion and Environmental Document Transmittal* form to the California State Clearinghouse for distribution to selected state and local agencies.

Eleven comments were received from organizations, individuals, and one state agency on the draft environmental assessment during the comment period. While many comments indicated support for the

project, some concerns were raised regarding adverse impacts associated with the selected alternative. These concerns were addressed in a *Concern-Response Report* appended to the final environmental assessment and include, but are not limited to, water resources, mitigation measures, and cumulative impacts.

## Summary of Changes between Draft EA and Final EA

In response to public comments on the draft environmental assessment, changes were incorporated in the *Muir Woods National Monument Sustainable Access Project Final Environmental Assessment*. Comments received on the Draft EA, and responses to those comments (*Concern-Response Report*), is appended to this Final EA. In response to public comments, changes were made in various places throughout the Final EA. Also, in commitment to thoroughness, the NPS also incorporated several minor, self-initiated project additions/clarifications into the Final EA. These clarifications do not alter the significance conclusions or any considerable portion of the project itself, nor do they cause any new impacts not analyzed in the Final EA. Substantive revisions made between Draft EA and Final EA are summarized as follows:

The following text was added to the “Objectives in Taking Action” on page 3:

Provide visitor amenities closer to all parking areas.

The following text was added to “Impact Topics Retained for Further Analysis” on page 7:

However, the National Park Service prepared a *Floodplain Statement of Findings* in accordance with Director’s Order 77-2 and approved the findings in the *Record of Decision* for the *Golden Gate National Recreation Area and Muir Woods National Monument Final General Management Plan / Environmental Impact Statement*. The *Floodplain Statement of Findings* addressed existing and proposed facilities and structures presumed to be in or adjacent to the monument’s floodplain.

The following text was added to “Alternative 3: Nursery Parking and Sustainable Access Improvements (Preferred Alternative)” on page 16:

The two lift stations located in the former Nursery Area and northeast of the Conlon Lot would be replaced with a single, modern 25,000-gallon lift station located near the former Nursery Area. The replacement lift station would be more efficient than the existing units because it would eliminate the need for double pumping wastewater. An underground power line and force main line would be installed to connect the new lift station to the existing sewer line beside the Conlon Lot. The new lift station would be designed to accommodate a new restroom. The decommissioned lift station and structures in the former Nursery Area would be removed; the area would require less than 0.4 acre of development. The decommissioned lift station in the Conlon Lot would be used for storage.

The following text was added to the list of cumulative actions on page 55. The analysis of cumulative actions under each impact topic in the “Environmental Consequences” chapter was updated to reflect these actions.

Muir Woods Water and Wastewater Rehabilitation Project: The monument is planning to rehabilitate water and wastewater lines and critical components of its potable water system and wastewater collection systems. The project would provide reliable services at the monument to meet current codes for water and wastewater collection services, address fire flow demands, resolve potable water quality issues, improve visitor and employee health and safety, and locate wastewater infrastructure out of the Redwood Creek corridor. Construction for this project is expected to begin in summer 2018 and be completed in winter 2018.

Redwood Creek Trail Realignment and Dias Ridge Trail Extension Project: The National Park Service and the California Department of Parks and Recreation are proposing to improve or modify trails within the Redwood Creek Watershed. This project would reconstruct the existing Redwood Creek Trail segment between Muir Woods Road and the Miwok Trail, decommission and replace the existing segment of the Redwood Creek Trail from the Miwok Trail to Santos Meadow, improve the trail tread from Santos Meadow to the southern trailhead, and construct an extension of the Dias Ridge Trail from Golden Gate Dairy on Highway 1 to the Redwood Creek Trail's southern trailhead. These actions would improve trail conditions and safety for visitors, reduce sediment loads and improve water quality in Redwood Creek, provide a trail interconnection, and reduce trail maintenance requirements. The project would be constructed in four phases over four years, likely beginning in 2020 or 2021.

## **AGENCY CONSULTATION**

The National Park Service initiated consultation with relevant agencies during the preparation of the final environmental assessment. This consultation is discussed in more detail below.

### **Section 7 of the Endangered Species Act**

Section 7 of the Endangered Species Act requires federal agencies to consult with the US Fish and Wildlife Service regarding the potential for proposed actions to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. As described in the "Threatened and Endangered Species" section of chapter 3 of the final environmental assessment, federally listed species and designated critical habitat occur in the project area. As a result, the National Park Service sought concurrence from both the US Fish and Wildlife Service and the National Marine Fisheries Service on the determination that the project may affect, but is not likely to adversely affect, federally listed species. The National Park Service received concurrence from the US Fish and Wildlife Service on March 28, 2017, and from the National Marine Fisheries Service on April 5, 2017.

### **Section 106 of the National Historic Preservation Act**

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the impacts of their undertakings on historic properties. The final environmental assessment evaluated impacts on cultural resources according to NPS *Management Policies 2006*. Compliance with section 106 of the National Historic Preservation Act was carried out separately but concurrently with the planning process. The National Park Service sent a letter to the California State Historic Preservation Office in September 2013 initiating consultation on the project. In a letter dated May 5, 2016, the National Park Service wrote

to the California State Historic Preservation Office describing the area of potential effects and provided an archeological survey of the project area, identifying two sites and recommending monitoring for those locations as well as other areas with archeological sensitivity. The California State Historic Preservation Office replied on July 6, 2016, acknowledging the continuation of consultation and approving the area of potential effects. The National Park Service submitted an *Assessment of Effect* to the California State Historic Preservation Office on January 10, 2017, stating that the project would have no adverse effect on the Muir Woods Historic District, the Dipsea Trail, or any other potentially eligible resource in the area of potential effects. On March 15, 2017, the National Park Service received concurrence from the California State Historic Preservation office that the Sustainable Access Project would not adversely affect cultural resources or the historic district.

## **WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT**

The National Park Service used the following NEPA criteria defined in 40 CFR 1508.27 to evaluate whether the selected alternative would have a significant effect on the environment:

- **Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.**

Implementing the selected alternative will result in adverse impacts; however, the overall benefit to resources under the selected alternative outweighs these adverse impacts. Whether taken individually or as a whole, the impacts of the selected alternative do not reach the level of significant adverse impacts. Most adverse impacts associated with implementation of the selected alternative will be temporary, lasting only as long as construction. Visitor experience and safety, transportation, soils, vegetation, water resources, and threatened or endangered species have all been subjected to long-term, adverse impacts under existing conditions.

- **The degree to which the proposed action affects public health or safety.**

No adverse impacts on public health or safety were identified. Beneficial impacts on public health and safety under the selected alternative include, but are not limited to, the following:

- Parking along Muir Woods Road will be eliminated, providing safer conditions for pedestrians and a clear right-of-way for emergency access.
- The segment of existing pedestrian trail between the Main and Nursery Lots will be decommissioned, limiting pedestrian access to Muir Woods Road.
- A delineated crosswalk will be established at the Conlon Avenue intersection.
- The Dipsea Trail will be realigned to the northwest perimeter of the Annex Lot, limiting the number of visitors crossing the lot's driveway.
- A new footbridge will be constructed over Redwood Creek along the Dipsea Trail, allowing pedestrians to cross the creek safely.
- Additional signs directing visitors to the Entry Plaza and local trails will be installed as a means to improve wayfinding at the monument.



- ABA-compliant parking areas will provide safer conditions with no privately owned vehicles circulating through the Main Lot.

- **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

The selected alternative will have no direct, long-term, adverse impacts on cultural resources and will have beneficial impacts on park lands by establishing vegetation along Muir Woods Road and in disturbed riparian areas. Although one farming soil of statewide importance is found in the Annex Lot, the former Nursery Area, and along the planned woodland pedestrian trail, most of these areas have already been disturbed, modified, or developed and are not used as prime farmland.

Reduced sediment loading into Redwood Creek as a result of newly installed stormwater management infrastructure will result in long-term, beneficial impacts on wetlands. The selected alternative may affect, but is not likely to adversely affect, federally listed species such as coho salmon and steelhead trout. Mitigation measures and best management practices will minimize adverse impacts on farmland soils, wetlands, and ecologically critical areas such as coho salmon and steelhead trout habitat.

- **The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

The alternative selected for implementation has not been subject to controversy. A memorandum of understanding between the National Park Service and Marin County recognized a desire to substantially improve traffic congestion and unsafe conditions for drivers, bicyclists, and pedestrians at the monument. Furthermore, the *Muir Woods National Monument Sustainable Access Project Draft Environmental Assessment*, which introduced the selected alternative as the proposed action, was circulated to local, state, and federal agencies, interested organizations, and individuals to allow review and comment on the document. Eleven comments were received during the comment period. While many comments indicated support for the project, some concerns were raised regarding adverse impacts associated with the selected alternative. These concerns were addressed in a *Concern-Response Report* appended to the final environmental assessment.

- **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

No highly uncertain effects or unique and unknown risks are involved with implementation of the selected alternative. The selected alternative involves mitigation measures and best management practices to minimize risk to the human environment.

- **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

The selected alternative will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration, because no significant effects have been identified and all future actions will be analyzed and considered independently from the selected alternative.

- **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.**

The final environmental assessment considered the cumulative impacts of the selected alternative with several past, present, and future actions. No individually or cumulatively significant impacts were identified. When the selected alternative is combined with other cumulative actions, overall beneficial impacts are anticipated. For example, the selected alternative will establish a Dipsea Trail footbridge, improve stormwater management infrastructure, and rehabilitate riparian areas, thereby improving habitat for threatened or endangered species and enhancing water quality in Redwood Creek. Furthermore, cumulative actions such as the Muir Woods Salmon Habitat Enhancement and Bridge Replacement Project will further restore aquatic habitat in Redwood Creek.

- **The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The National Park Service initiated consultation with the California State Historic Preservation Office in September 2013. The National Park Service received concurrence from the California State Historic Preservation office in March 2017 that the selected alternative will not adversely affect cultural resources or the historic district at the monument.

- **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

The selected alternative could temporarily affect habitat for coho salmon and steelhead trout during construction activities, but mitigation measures and best management practices will minimize adverse impacts on these species. Construction of the Dipsea Trail footbridge over Redwood Creek, revegetation of disturbed areas, and new stormwater management infrastructure will have long-term, beneficial impacts on coho salmon and steelhead trout as a result of improved water quality and reduced habitat disturbance associated with foot traffic in Redwood Creek. Noise disturbance during construction activities may temporarily affect the northern spotted owl; however, rehabilitation of riparian habitat in the Entry Plaza will have long-term, beneficial impacts on the northern spotted owl. The project will not affect marbled murrelet because this species has

not been documented at the monument, and no disturbances to old-growth forest are expected. The project will not affect the California red-legged frog because this species does not likely occur in the project area. Furthermore, the National Park Service received concurrence from the US Fish and Wildlife Service and the National Marine Fisheries Service that the selected alternative may affect, but is not likely to adversely affect, these federally listed species.

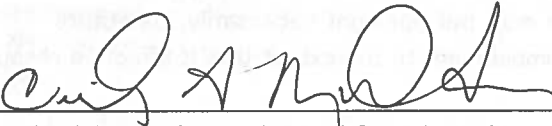
- **Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.**

The selected alternative complies with applicable federal, state, and local environmental protection laws.

## CONCLUSION

Implementation of the selected alternative for the Sustainable Access Project will not have significant impacts, individually or cumulatively, on the human environment. The determination is sustained by the analysis in the environmental assessment; agency consultations; inclusion and consideration of public comments; and mitigation measures to avoid, reduce, or eliminate adverse impacts. No unmitigated adverse impacts will occur on sites or districts listed, or eligible for listing, in the National Register of Historic Places. No highly uncertain or controversial impacts, unique or unknown risks, or elements of precedence have been identified. Requirements of the National Environmental Policy Act have been satisfied and preparation of an environmental impact statement is not required. The Golden Gate National Recreation Area will implement the selected alternative.

Recommended:

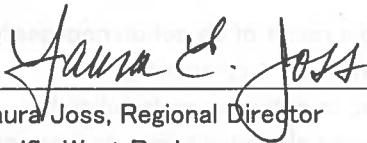


Cicely A. Muldoon, Acting General Superintendent  
Golden Gate National Recreation Area  
National Park Service

25 May 2017

Date

Approved:



Laura Joss, Regional Director  
Pacific West Region  
National Park Service

May 30, 2017

Date

# DETERMINATION OF NO IMPAIRMENT SUSTAINABLE ACCESS PROJECT

## National Park Service, US Department of the Interior Golden Gate National Recreation Area Muir Woods National Monument

May 2017

National Park Service (NPS) *Management Policies 2006* (section 1.4) requires analysis of potential effects to determine whether or not proposed actions will impair a park's resources and values. NPS decision makers must always seek ways to avoid or to minimize, to the greatest degree practicable, adverse impacts on park resources and values. The National Park Service has the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of the park, although that discretion is limited by the statutory requirement that the National Park Service must leave resources and values unimpaired unless a particular law directly and specifically prescribes otherwise.

The prohibited impairment is an impact that, in the professional judgment of the responsible NPS decision maker, will harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values. Whether an impact could lead to impairment 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 impacts. An impact on any park resource or value may, but does not necessarily, constitute impairment. An impact will 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.

An impact may be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values, and it cannot be further mitigated. Impairment may result from visitor activities; NPS 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.

An impairment determination is not made for all impact topics analyzed for the selected alternative. An impairment determination is not made for land use, socioeconomics, transportation and circulation, recreation and visitor use, public health and safety, and public services and utilities because impairment determinations only relate to resources and values that maintain the park's purpose and significance. The

consideration of impairment to resources at Muir Woods National Monument (monument) applies to the remaining resources evaluated in the *Muir Woods National Monument Sustainable Access Project Final Environmental Assessment*; these include geology and soils, vegetation, water resources and hydrological processes, threatened and endangered species, and cultural resources. Additionally, this determination applies only to NPS lands.

## **GEOLOGY AND SOILS**

The selected alternative will not result in the impairment of geology and soils. Soil removal, compaction, and soil structure modification will be limited to less than an acre of land. The natural integrity of this resource will not be harmed because the removal of topsoil infested with invasive, nonnative plants, implementation of erosion control measures, and aeration of disturbed ground will minimize or mitigate adverse impacts. The selected alternative will result in beneficial impacts, including decreased erosion of soils near Redwood Creek following riparian rehabilitation in the Entry Plaza, revegetation of the roadside trail and parking areas, and the installation of stormwater management infrastructure.

## **VEGETATION**

The selected alternative will not result in the impairment of vegetation. Vegetation removal will be limited to specific areas in the former Nursery Area, Conlon Lot, along the new pedestrian woodland trail, and along Muir Woods Road. Though direct plant mortality will occur in the footprints of the lift station, new restrooms, and infiltration trenches, the natural integrity of this resource will not be harmed because surveying for sensitive species, minimizing the spread of invasive, nonnative plants and diseases, monitoring reclaimed areas, and developing a detailed revegetation and rehabilitation plan for the project area will mitigate adverse impacts. Plants of significance to the monument, such as coast redwood (*Sequoia sempervirens*), will not be affected. The selected alternative will result in beneficial impacts from the revegetation of the existing pedestrian trail along Muir Woods Road, riparian rehabilitation in the Entry Plaza, and revegetation of former roadside parking areas.

## **WATER RESOURCES AND HYDROLOGICAL PROCESSES**

The selected alternative will not result in the impairment of water resources and hydrological processes. Small increases in erosion, sediment loading, and pollutant loading into Conlon Creek or Redwood Creek as a result of the selected alternative will not result in long-term changes to water quality in either creek. Furthermore, silt fencing, filter fabric, sediment ponds, and check dams will be installed to minimize or mitigate these adverse impacts. The selected alternative will result in beneficial impacts from the revegetation and rehabilitation of disturbed areas and new stormwater management infrastructure. These actions will reduce erosion, sediment loading, and pollutant loading over the long term.

## **THREATENED AND ENDANGERED SPECIES**

The selected alternative will not result in the impairment of threatened or endangered species. Small increases in sedimentation or contaminants in Redwood Creek and noise or visual disturbance from construction activities will not harm the natural integrity of critical habitat for coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus mykiss*), nor adversely affect habitat for northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), or California red-legged frog

(*Rana draytonii*) because conducting surveys for threatened and endangered species, reducing sedimentation and contaminant runoff through mitigation measures, limiting construction to non-nesting seasons for avian species, and training construction personnel on sensitive resources in the project area will minimize or mitigate adverse impacts. The selected alternative will result in beneficial impacts from installing new stormwater management infrastructure, reducing foot traffic in Redwood Creek, and rehabilitating riparian habitat in the Entry Plaza.

## CULTURAL RESOURCES

The selected alternative will not result in the impairment of cultural resources. Construction activities will avoid identified archeological sites and the Muir Woods Historic District will not be subject to adverse impacts. Furthermore, delineating known archeological resources in the project area and continuing coordination with the California State Historic Preservation Office during construction will minimize or mitigate potential adverse impacts. Additionally, decommissioning the Muir Woods Road pedestrian trail will allow vegetation to become established along the roadside and improve the visual approach to the Muir Woods Historic District, resulting in beneficial impacts on the historic district.

## CONCLUSION

The National Park Service has determined that implementation of the selected alternative will not constitute an impairment of the resources or values of the monument. This conclusion is based on consideration of the monument's purpose and significance, a thorough analysis of the environmental impacts described in the *Muir Woods National Monument Sustainable Access Project Final Environmental Assessment*, 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*.