

**National Park Service
U.S. Department of the Interior**



**Golden Gate National Recreation Area and
Muir Woods National Monument
California**

**General Management Plan
RECORD OF DECISION**

Approved:

Christine S. Lehnertz
Regional Director, Pacific West Region
National Park Service

Date

**UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE**

RECORD OF DECISION

**GENERAL MANAGEMENT PLAN
ENVIRONMENTAL IMPACT STATEMENT**

**Golden Gate National Recreation Area and Muir Woods National Monument
California**

The Department of the Interior, National Park Service, has prepared this Record of Decision on the *Final General Management Plan / Environmental Impact Statement* for Golden Gate National Recreation Area and Muir Woods National Monument.¹ This Record of Decision includes a description of the background of the project, a statement of the decision made, synopses of other alternatives considered, the basis for the decision, a description of the environmentally preferable alternative, a listing of measures to minimize environmental harm, and an overview of public and agency involvement in the decision-making process. Also attached are the nonimpairment determination (appendix A), the most recent consultation correspondence from the U.S. Fish and Wildlife Service (appendix B), ~~and~~ the Statement of Findings for Executive Order 11988, "Floodplain Management" (appendix C), and the Programmatic Agreement (appendix D).

BACKGROUND OF THE PROJECT

The purpose of the general management plan is to provide ~~a~~-comprehensive direction for resource preservation and visitor use and a basic foundation for decision making for Golden Gate National Recreation Area and Muir Woods National Monument for the next 20 years. The plan prescribes the resource conditions and visitor experiences that are to be achieved and maintained over time. The clarification of what must be achieved according to law and policy is based on review of the purpose, significance, and special mandates for the park and monument. As required by federal law, the plan also evaluates visitor carrying capacities and identifies potential modifications to the external boundary of the park.

Purpose and Need for the Plan

The last general management plan for Golden Gate National Recreation Area and Muir Woods National Monument was completed over 30 years ago. The need for a new plan arose from a number of issues and trends, including: (1) the park has significantly expanded in size and includes many new lands in San Mateo County; (2) increased demand for access to, and use of, open spaces in the San Francisco Bay area~~s~~; (3) changing demographics in the region and, consequently, shifts in park visitation and uses; (4) new information and knowledge regarding resources, visitor use, and climate change; (5) local transportation infrastructure has evolved, creating changes in how visitors access the park; and (6) to comply with federal law.

Implementation of the Plan

¹ In this document, Golden Gate National Recreation Area is referred to as "the park" and Muir Woods National Monument is referred to as "the monument."

The general management plan provides a framework to direct more detailed implementation planning and management for the park over the next 20 years. Prior to implementation of specific actions in the plan, additional detailed studies, planning and compliance, with public involvement, would be conducted. The scope and detail of the actions described and the impact analysis conducted are consistent with the conceptual nature of this long-term programmatic planning document. The approval of this plan does not guarantee that the funding and staffing needed to implement the plan will be forthcoming. Full implementation of the plan could be many years in the future.

DECISION (SELECTED ACTION)

The Selected Action for Park Lands in Marin, San Francisco, and San Mateo Counties

The National Park Service has selected alternative 1, Connecting People with the Parks, for implementation on park lands in Marin, San Francisco, and San Mateo counties. The selected action for Muir Woods and Alcatraz Island is described in a subsequent section. This Alternative 1 furthers the founding idea of “parks to the people.” The emphasis of this alternative is reaching out and engaging the community and other visitors in the enjoyment, understanding, and stewardship of park resources and values. Park management will focus on ways to attract and welcome people; connect people with the resources; and promote enjoyment, understanding, preservation, and health—all as ways to reinvigorate the human spirit. Furthermore, visitor opportunities will be relevant to diverse populations now and in the future.

To achieve these objectives, management zones will be applied in all areas, enhancements will be made to park programs, and a number of projects will be carried out to preserve, restore, and/or improve natural and cultural resources as well as park facilities and infrastructure.

A more detailed description of the selected action (alternative 1) follows for each of the three counties.

Park Lands in Marin County. For park lands in Marin County, park managers will preserve the qualities that are enjoyed today and will improve access to the park for all visitors. Park managers will work to preserve and restore interconnected coastal ecosystems through collaborative partnerships with other land management agencies in the region. A stronger national park identity and message will welcome people as they arrive, and improved orientation and information services will inform visitors of the variety of experiences available in the park. Important park operational uses will remain in the Marin Headlands, and the facilities at these sites will be improved.

Sustainable approaches to rehabilitating the visitor facilities that are in place today will improve trailheads and trails, as well as roads, parking lots, campsites, picnic areas, restrooms, and other structures at popular destinations. Some new facilities will be developed to improve visitor services and support the growing stewardship programs. Park partners will continue to have an important role in preserving resources and offering programs and services to visitors in support of the park mission. Public transportation and multimodal access to park sites will also be improved.

Park Lands in San Francisco County. In San Francisco County, park lands will be managed to preserve and enhance a variety of settings and improve and expand the facilities that welcome and support visitors. The identity of these diverse park sites as part of the national park system will be strengthened. Visitors will be introduced to the park and the national park system through facilities, informational media, and programming at popular arrival nodes and recreational destinations.

The selected action will emphasize the importance of education, civic engagement, and healthy outdoor recreation, including offering nature experiences to city children and their families. Existing and new facilities, including a state-of-the-art museum collection facility, will support visitor enjoyment, learning, and community-based natural and cultural resource stewardship. Recreational and stewardship opportunities will promote healthy parks and healthy communities, and the community will be engaged in efforts to revitalize coastal park areas such as Ocean Beach, Fort Funston, and Lands End, in collaboration with other land managers and incorporating measures to address sustainability and climate change.

Improving access to park lands will also be an important goal. Park managers will continue to improve trails and trailheads throughout the San Francisco park lands to make the park accessible to the broadest array of visitors. Sites will be connected to each other and to communities by the trail system and the city's transit and multimodal access systems.

Park Lands in San Mateo County. In San Mateo County, park lands and ocean environments will be managed as part of a vast network of protected lands and waters, some recognized as part of the UNESCO Golden Gate Biosphere Reserve. Park managers will emphasize connectivity, preservation, and restoration of the area's vital ecosystems through collaborative partnerships with other land management agencies. Strategic adjustments to the park's boundary will enhance the long-term preservation of ecological values and significant cultural resources.

The selected action will also focus on the importance of improving access and community engagement in these newest park lands. Key efforts will include improving the visibility and identity of NPS sites. Park trails will be improved to create a sustainable system that provides opportunities to enjoy park sites, connects with local communities, and contributes to an exceptional regional trail network. Equestrian facilities will continue to have an important role in recreation and stewardship. A comprehensive trail plan will be prepared to help achieve these goals. Park managers will also work with county transit providers to improve ~~transit~~ connections to local trailheads and east-west transit between bayside communities and State Route 1.

The addition of signs and trailheads will help visitors find their way to various park sites and help them gain an understanding of the park's diverse natural and cultural resources. Equestrian needs will be incorporated in trailhead and trail design.

There will be additional facilities that welcome visitors to the park; specifically, park managers will promote visitor information and orientation centers in Pacifica and the coastside area south of Devil's Slide. These facilities may be shared with San Mateo County Department of Parks, California State Parks, Monterey Bay National Marine Sanctuary, local governments, and other organizations.

The Selected Action for Alcatraz Island and Muir Woods National Monument

The National Park Service has selected alternative 3, Focusing on National Treasures, for implementation at Alcatraz Island and Muir Woods National Monument. The emphasis of this alternative is to focus on, or showcase, nationally important natural and cultural resources at each site. The fundamental resources of each showcased site will be managed at the highest level of preservation to protect the resources in perpetuity and to promote appreciation, understanding, and enjoyment of those resources. All other resources will be managed to complement the nationally significant resources and the associated visitor experience.

To achieve these objectives, management zones will be applied in all areas of Muir Woods and Alcatraz Island, enhancements will be made to park programs, and a number of projects will be

carried out to preserve, restore, and/or improve natural and cultural resources as well as park facilities and infrastructure.

Alcatraz Island. The selected action will immerse visitors extensively in all of Alcatraz Island's historic periods—the Civil War military fortifications and prison, the federal penitentiary, and American Indian occupation. Alcatraz Island's history will be interpreted, first and foremost with tangible and accessible historic resources, including the structures, cultural landscape, archeological sites, and museum collection.

The visitor's immersion in Alcatraz Island history will begin from an embarkation site in San Francisco. The primary embarkation site will remain on San Francisco's northern waterfront where visitor services, including education about Alcatraz and orientation to Golden Gate National Recreation Area, will be enhanced. On the island, visitors will ascend to the Main Prison Building through a landscape of preserved historic structures and features. While the primary visitor experience will focus on the federal penitentiary, visitors also will be exposed to other periods of history, literally and programmatically.

Alternative 3 will require excavations, extensive stabilization, rehabilitation, and restoration of historic buildings and small-scale landscape features, and archeological sites, as well as creative interpretive and educational programs and visitor services. Park managers will create additional opportunities for cultural resource stewardship programs. Visitors will have opportunities to learn about the natural history of San Francisco Bay. The colonial waterbird habitat that has grown in regional importance will be protected, enhanced, and interpreted. A comprehensive user capacity strategy will help the park monitor and adaptively manage crowding and impacts to cultural and natural resources.

Visitors will also be able to explore the island perimeter, which will be managed to protect sensitive bird populations while providing opportunities to observe them or participate in stewardship activities. The large population of gulls will be managed to reduce conflicts in primary visitor use areas such as the Parade Ground.

Muir Woods National Monument. At Muir Woods National Monument, park managers will present the monument as a contemplative setting for visitors to discover the primeval redwood forest and the monument's place in the early U.S. conservation movement. The system of trails will continue to lead visitors into the forest to feel, see, and learn, in different ways, about the essential qualities of the forest. These qualities include its giant trees, the ecology of Redwood Creek, and William Kent's generous donation of the forest to the American public.

Rather than continue to concentrate visitation along a main trail, visitors will be encouraged to take different thematic interpretive trails, some new and some existing, to experience different parts of the monument. Other trails will be enhanced to better link the monument with the surrounding Mount Tamalpais State Park. In addition, a comprehensive user capacity strategy will be developed to help the park monitor and adaptively manage crowding, user conflicts, and impacts on resources. The National Park Service will also continue to collaborate with the public and other land managers to address watershed restoration, stewardship, and recreation.

Some existing facilities and use areas, such as the entrance area and parking lots, will be modified or relocated to reduce their impacts on the ecosystem and improve the park experience. To enhance visitor experience and address congestion problems, permanent shuttle service to Muir Woods National Monument will be provided during peak periods throughout the year. The existing transit hub in the vicinity of State Route 1 and Highway 101 will continue to serve as a shuttle facility.

Boundary Expansion

~~Six~~Five proposed boundary adjustments are described in the *Final General Management Plan / Environmental Impact Statement*. The planning team verified that each of the boundary adjustments met the federal criteria described in Public Law 95-625, Public Law 101-628, and *NPS Management Policies 2006*. The six adjustments were guided by three goals: (1) strengthen the diversity of park settings and opportunities supporting the park purpose to encourage, attract, and welcome diverse current and future populations while maintaining the integrity of the park's natural and cultural resources; (2) strengthen the integrity and resilience of coastal ecosystems by filling habitat gaps, creating habitat links, providing for the recovery of special status species and the survival of wide-ranging wildlife; and (3) preserve nationally important natural and cultural resources related to the park's purpose.

Two of the ~~six~~ boundary adjustments—the nearshore ocean environment in San Mateo County and McNee Ranch in San Mateo County—will require authorization from the U.S. Congress before ~~land can be added to the property can be included in~~ the park's boundary, while the others ~~four~~ are considered “minor boundary revisions,” and thus, do not require congressional ~~authorization.~~ ~~authorization. However, all six boundary adjustments described below will require further analysis and negotiation with the landowner before the land is added to the park.~~

The ~~six~~ proposed boundary adjustments are:

1. Nearshore ocean environment in San Mateo County: ~~T~~he park includes several coastal properties in San Mateo County. The western boundaries of these properties end along the Pacific coast at the line of mean high tide. The boundary adjustment will place the new boundary 0.25 mile from the line of mean high tide to include nearshore areas (approximately 2,000 acres).
2. Gregerson Property, San Mateo County: The property forms a long rectangle of about 206 acres with three sides in common with the park's 4,200-acre Rancho Corral de Tierra unit. It is owned by the Peninsula Open Space Trust, who acquired it in 2007. The ~~trust~~ Trust maintains the property as conservation land. The property is undeveloped, with the exception of a caretaker residence and paved access road that crosses the property from north to south. The only access to the property is from the south on a park road.
3. Margins of Rancho Corral de Tierra, San Mateo County: These two areas (about 58 acres ~~in total~~) are at the margins of agricultural lands owned by the Peninsula Open Space Trust and are immediately adjacent to the park's 4,200-acre Rancho Corral de Tierra unit. The northern area is maintained as an open field with a light vegetation cover, but is not cultivated due to poor soil conditions. The southern area is primarily gently sloping hillsides adjacent to cultivated fields. Both areas abut State Route 1 and have informal access roads from it.
4. Additions to Cattle Hill, Vallemar Acres, and State Route 1 Frontage, Pacifica: Vallemar Acres and the State Route 1 Frontage parcel are both at the edges of Cattle Hill, a prominent coastal landform in Pacifica. Vallemar Acres consists of about 61 acres of sloping undeveloped land owned by the City of Pacifica and is contiguous to the city's adjacent Cattle Hill property proposed for donation. It is part of the lower southern slope of Cattle Hill and extends to the property lines of residences on the north side of Fassler Avenue, which ends at an unimproved trailhead. The State Route 1 Frontage parcel consists of about 6 acres of sloping undeveloped land at the western end of Cattle Hill along State Route 1. It is owned by the state and managed by Caltrans.

5. McNee Ranch, San Mateo County: This 710-acre former ranch property lies on the east side of State Route 1, just south of Devil's Slide. It is a unit of the California state park system, managed as part of Montara State Beach, which is principally on the west side of State Route 1. The property shares a long boundary with Rancho Corral de Tierra, which generally follows Martini Creek. The property includes two trailheads on State Route 1, a pedestrian bridge over Martini Creek, and two ranger residences—one near the bridge, the other close to the northern trailhead. No other major structures are present. Acquisition is not contemplated for this property.

MITIGATION MEASURES AND MONITORING TO MINIMIZE ENVIRONMENTAL HARM

Congress has charged the National Park Service with managing the lands under its stewardship “in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (NPS Organic Act, 16 *United States Code* [USC] 1). National Park Service staff routinely evaluate and implement mitigation measures whenever conditions occur that could adversely affect the sustainability of national park system resources.

To ensure that implementation of the selected action applies appropriate levels of protection to natural and cultural resources and provides a quality visitor experience, a consistent set of mitigation measures will be applied to actions proposed in this plan. The National Park Service will prepare implementation plans with appropriate environmental compliance (i.e., those required by the National Environmental Policy Act (NEPA) and the National Historic Preservation Act, as amended, and other relevant legislation) for these future actions. These implementation plans will include more detailed mitigation measures for specific projects. As part of environmental compliance, the National Park Service will avoid, minimize, and mitigate adverse impacts when practicable. The implementation of a compliance-monitoring program will be within the parameters of the National Environmental Policy Act and the National Historic Preservation Act, compliance documents, U.S. Army Corps of Engineers Clean Water Act, section 404 permits, and other compliance requirements. The compliance monitoring program will oversee these mitigation measures and will include reporting protocols.

The following mitigation measures and best management practices will be applied to avoid or minimize potential adverse impacts from implementation of the selected action in this general management plan.

Natural Resources

General. The park and monument resources, including air, water, soils, vegetation, and wildlife, will be periodically inventoried and monitored to provide information needed to avoid or minimize impacts of future development. Any museum collections related to natural resources generated by such activities will be managed according to NPS policies.

Whenever possible, new facilities will be built in previously disturbed areas or in carefully selected sites with as small a construction footprint as possible and with a sustainable design. During design and construction periods, NPS natural and cultural resource staff will identify areas to be avoided and will monitor activities. The siting of any new facilities will first be evaluated for long-term viability and cost effectiveness, taking present and future climate change influences into consideration. Fencing or other means will be used to protect sensitive resources adjacent to construction areas. Construction materials will be kept in work areas, especially if the construction takes place near streams, springs, natural drainages, or other water bodies.

Visitors will be informed of the importance of protecting natural resources and leaving them undisturbed for the enjoyment of future generations.

Air Quality. A dust abatement program will be implemented during construction. Standard dust abatement measures could include watering or otherwise stabilizing soils, covering haul trucks, employing speed limits on unpaved roads, minimizing vegetation clearing, and revegetating after construction.

Fire Management. Fire management for NPS-managed lands, ~~including Sweeney Ridge~~, is addressed in the Golden Gate National Recreation Area Fire Management Plan. The Golden Gate National Recreation Area Fire Management Plan Update will address park-managed lands in San Mateo County that were not included in the (2008) fire management plan, including Rancho Corral de Tierra. Owned by the Peninsula Open Space Trust, the Gregerson property will not be included in the fire management plan update at this time, but could be added at a later update following a boundary change and acquisition, if approved and funded. The fire management plan document will address fire risk, prevention, and management on NPS-managed lands, including:

- analysis of existing fire hazard conditions
- fuels management projects
- fire preparedness and suppression
- fire danger and visitor use restrictions (such as restricted activities or access on fire danger days)
- strategies to reduce risk and prevent wildfires, including maintenance activities such as mowing and vegetation management as well as monitoring communications and protocols (patrols and enforcement) during periods of high fire danger
- detailed mitigation measures for potential fire impacts, including current best practices
- a “Step-Up Plan” that provides more detailed protocols to address use restrictions during high fire danger periods

Lightscape. Mitigation measures to preserve natural ambient lightscapes will include the following:

- limiting the use of artificial outdoor lighting to that which is necessary for basic safety requirements
- shielding all outdoor lighting to the maximum extent possible
- keeping light on the intended subject and out of the night sky to the greatest degree possible
- working with park partners and visitors on education and best management practices to minimize their impacts on lightscapes

Nonnative Species. Special attention will be devoted to preventing the spread of nonnative and invasive plants. Standard measures could include the following elements: ensure that construction-related equipment arrives at the work site free of mud or seed-bearing material, certify all seeds and straw material as weed-free, identify areas of nonnative plants before construction, treat nonnative plants or nonnative-infested topsoil before construction (e.g., topsoil segregation, storage, herbicide treatment), and revegetate areas with appropriate native species.

Scenic Resources. Mitigation measures that will be used to minimize visual intrusions, which could include the following:

- Where appropriate, facilities such as boardwalks and fences will be used to route people away from sensitive natural and cultural resources while still permitting access to important viewpoints.
- Facilities will be designed, sited, and constructed to avoid or minimize visual intrusion into the natural environment or landscape.
- Vegetation screening will be provided, where appropriate.

Soils. New facilities will be built on soils suitable for development. Soil erosion will be minimized by limiting the time soil is left exposed and by applying other erosion control measures such as erosion matting, silt fencing, and sedimentation basins in construction areas to reduce erosion, surface scouring, and discharge to water bodies. Once work is completed, construction areas will be revegetated with native plants.

To minimize soil erosion on new trails, best management practices for trail construction will be used. Examples of best management practices could include installing water bars, check dams, and retaining walls; contouring to avoid erosion; and minimizing soil disturbance.

Soundscapes. Mitigation measures to preserve natural ambient soundscapes will include the following:

- Facilities will be sited and designed to minimize objectionable noise.
- Standard noise abatement measures will be followed during construction, including a schedule that minimizes impacts on adjacent noise-sensitive resources, the use of the best available noise control techniques wherever feasible, the use of hydraulically or electrically powered tools when feasible, and the position of stationary noise sources as far from sensitive resources as possible.

Threatened and Endangered Species and Species of Concern. Conservation measures will occur during normal operations as well as before, during, and after construction to minimize long-term, immediate impacts on rare species and threatened and endangered species in the park and monument where they are identified. These measures will vary by specific project and the affected area of the park and monument. Many of the measures listed above for vegetation and wildlife will also benefit rare, threatened, and endangered species by helping to preserve habitat. Conservation measures specific to rare, threatened, and endangered species will include the following actions:

- Surveys will be conducted for special status species, including rare, threatened, and endangered species, before deciding to take any action that might cause harm. In consultation with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA)-National Marine Fisheries Service, appropriate measures will be taken to protect any sensitive species, whether identified through surveys or presumed to occur. Any actions expected to impact threatened and endangered species will be subject to consultation with the U.S. Fish and Wildlife Service, leading to the development of necessary protective measures.
- If breeding or nesting areas for threatened and endangered species were observed in the park or monument, these areas will be protected from human disturbance.
- New facilities and management actions will be sited and designed to avoid adverse effects on rare, threatened, and endangered species. If avoidance of adverse effects on these species is infeasible, appropriate conservation measures will be taken in consultation with the appropriate resource agencies.

- Restoration or monitoring plans will be developed as warranted. Plans could include evaluation of long-term viability, methods for implementation, performance standards, monitoring criteria, and adaptive management techniques.
- Measures will be taken to reduce adverse effects of nonnative plants and wildlife on rare, threatened, and endangered species.

Vegetation. Areas used by visitors (e.g., trails) will be monitored for signs of native vegetation disturbance. Public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers will be used to control potential impacts on plants from trail erosion or visitor created trails~~social trailing~~.

Proposed sites for new trails and other facilities will be surveyed for sensitive species before construction. If sensitive species are found, new developments will be ~~relocated~~ designed to avoid impacts.

Revegetation plans will be developed for disturbed areas. Revegetation plans could specify such features as seed/plant source, seed/plant mixes, soil preparation, fertilizers, and mulching. Salvage vegetation, rather than new planting or seeding, will be used to the greatest extent possible. To maintain genetic integrity, native plants ~~that grown~~ in the project area or the region will be used in restoration efforts, whenever possible. Use of nonnative species or genetic materials will be considered only where ~~determined~~ deemed necessary to maintain a cultural landscape or to prevent severe resource damage ~~and will be as~~ approved by ~~the~~ NPS resource management staff.

Restoration activities will be instituted immediately after construction projects are completed. Monitoring will occur to ensure that revegetation was successful, plantings were maintained, and unsuccessful plant materials were replaced.

Water Resources. To prevent water pollution during construction, erosion control measures will be used, discharges to water bodies will be minimized, and construction equipment will be regularly inspected for leaks of petroleum and other chemicals.

Best management practices, such as the use of silt fences, will be followed to ensure that construction-related effects are minimal and to prevent long-term impacts on water quality, wetlands, and aquatic species. Caution will be exercised to protect water resources from activities with the potential to damage water resources, including damage caused by construction equipment, erosion, and siltation. Measures will be taken to keep fill material from escaping work areas, especially near streams, springs, natural drainages, and wetlands.

For new facilities, and to the extent practicable for existing facilities, stormwater management measures will be implemented to reduce nonpoint source pollution discharge from parking lots and other impervious surfaces. Actions could include use of oil/sediment separators, street sweeping, infiltration beds, permeable surfaces, and vegetated or natural filters to trap or filter stormwater runoff. As directed by the Clean Water Act, all projects disturbing more than ~~5 acres~~ 1 acre require a stormwater discharge permit and specific mitigation measures will be developed as needed.

The NPS spill prevention and pollution control program for hazardous materials will be followed and updated on a regular basis. Standard measures could include (1) procedures for hazardous materials storage and handling, spill containment, cleanup, and reporting; and (2) limitation of refueling and other hazardous activities to upland/nonsensitive sites.

Wetlands will be avoided, if possible, and protection measures will be applied during construction. Wetlands will be delineated by qualified NPS staff or certified wetland specialists and clearly marked

before construction work begins. Construction activities will be performed in a cautious manner to prevent damage caused by equipment, erosion, siltation, or other construction-related effects.

Wildlife. To the extent possible, new or rehabilitated facilities will be sited to avoid sensitive wildlife habitats, including feeding and resting areas, major travel corridors, nesting areas, and other sensitive habitats.

Construction activities will be timed to avoid sensitive periods such as nesting or spawning seasons. Ongoing visitor use and NPS operational activities could be restricted if their potential level of damage or disturbance warranted doing so. Park staff and contractors will be trained to avoid impacts on threatened and endangered species during construction or rehabilitation efforts.

Measures will be taken to reduce the potential for visitors feeding wildlife—wildlife-proof garbage containers will be required in developed areas (including visitor centers, picnic areas, trails, and interpretive waysides). Signs will continue to educate visitors about the need to refrain from feeding wildlife. Other visitor impacts on wildlife will be addressed through such techniques as visitor education programs, restrictions on visitor activities, and ranger patrols.

Cultural Resources

All projects with the potential to affect historic properties and cultural landscapes will be carried out in compliance with section 106 of the National Historic Preservation Act, as amended, to ensure that the effects are adequately addressed. All reasonable measures will be taken to avoid, minimize, or mitigate adverse effects in consultation with the California state historic preservation office and, as necessary, the Advisory Council on Historic Preservation and other concerned parties, including American Indian tribal officials. In addition to adhering to the legal and policy requirements for cultural resources protection and preservation, the National Park Service will also undertake the measures listed below to further protect park and monument resources.

All areas selected for construction (including any trail improvements) will be surveyed and evaluated to ensure that cultural resources (i.e., archeological, historic, ethnographic, and cultural landscape resources) in the area of potential effect are adequately identified and protected by avoidance or, if necessary, mitigation.

Compliance with the Native American Graves Protection and Repatriation Act of 1990 will occur in the unlikely event that human remains believed to be American Indian are discovered inadvertently during construction. Prompt notification and consultation with the tribes traditionally associated with Golden Gate National Recreation Area and Muir Woods National Monument will occur in accordance with the act. If such human remains were believed to be non-Indian, standard reporting procedures to the proper authorities will be followed, as will all applicable federal, state, and local laws.

In accordance with section 110 of the National Historic Preservation Act, strategic archeological surveys will be conducted on portions of the 90% of park lands that have not been inventoried that are most vulnerable from resource stressors such as visitor use, management zone policies, climate change, and other factors considered under this general management plan. These surveys are distinct from resource actions resulting from section 106 undertakings and are designed to correct material deficiencies in the park's archeological resource identification process. Archeological documentation will be performed in accordance with *The Secretary of the Interior's Standards for Archeology and Historic Preservation* (1983, as amended and annotated).

If, during construction, previously unknown archeological resources are discovered, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented and, if the resources cannot be preserved in situ, an appropriate mitigation strategy will be developed in consultation with the California state historic preservation officer and, if necessary, associated Indian tribes.

The National Park Service will consult with tribal officials before taking actions that could affect ethnographic resources. The National Park Service will continue to abide by existing cooperative agreements and will pursue additional agreements with culturally affiliated tribes to avoid resource impacts, allow access for traditional gathering and other approved activities, and minimize potential use conflicts in culturally sensitive areas. The National Park Service will develop and accomplish programs in a manner respectful of the beliefs, traditions, and other cultural values of the affiliated tribes.

A proactive program of identification and evaluation of the full range of cultural resources, including archeological and landscape resources, will be implemented well in advance of individual park projects having the potential to affect these resources. The priorities of this research program will be informed by the park's implementation priorities.

Prior to demolition of any structure listed in or eligible for listing in the national register, a survey for archeological resources in the general vicinity of the affected structure will be conducted. The excavation, recordation, and mapping of any significant cultural remains, if present, will be completed prior to demolition, to ensure that important archeological data is recovered and documented.

To appropriately preserve and protect national register-listed or national register-eligible historic structures, cultural landscape features, or archeological sites, all surveys, assessments, stabilization, preservation, rehabilitation, data recovery, and restoration efforts will be undertaken in accordance with *NPS Management Policies 2006*, and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995). Any materials removed during rehabilitation efforts will be evaluated to determine their value to the park's museum collections and/or for their comparative use in future preservation work at the sites.

Design guidelines for new construction will be prepared by the National Park Service and will be reviewed for compatibility with the cultural landscape or historic setting and for compliance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. Additional coordination and consultation will be carried out with the California state historic preservation office, the Advisory Council on Historic Preservation, and, if necessary, American Indian tribal officials to assess and mitigate any adverse effects of new construction on designated or potential national historic landmark districts. All new buildings, additions, and landscape features will be designed and sited to harmonize with their historic settings.

Visitor Safety and Experience

A number of measures will be used to enhance visitor safety and the visitor experience. Measures to reduce adverse effects of construction on visitor safety and experience will be implemented, including project scheduling and best management practices. Visitor safety concerns will be integrated into NPS educational programs. Directional signs will continue to orient visitors and education programs will continue to promote understanding among visitors.

Every reasonable effort will be made to make the facilities, programs, and services of the National Park Service and its park partners universally accessible. This policy is based on the commitment to

provide access to the widest cross-section of the public and to ensure compliance with the intent of the Architectural Barriers Act (42 USC 4151 et seq.) and the Rehabilitation Act (29 USC 701 et seq.). Specific guidance for implementing these two laws is found in the Secretary of the Interior's regulations regarding "Nondiscrimination in Federally Assisted Programs" (43 CFR 17).

Director's Order 42 requires the National Park Service to update and repair existing facilities to remove physical barriers, design new facilities and programs, and modify existing programs and media to ensure that all visitors, without regard to disability, have access to these programs and facilities. It is recognized that this goal will require detailed condition assessments for accessibility, short- and long-range planning and action over a number of years.

While a general management plan is not the most appropriate mechanism for addressing the details of a park's accessibility needs, the final general management plan does establish the goals and objectives for accessibility at ~~Golden Gate National Recreation Area~~ **the park and monument** and does prepare for the important follow-up work that may be needed to comply with accessibility laws, regulations, and policies. Park managers shall make every attempt to evaluate their programs and facilities for accessibility. General management plans should, as this one does, identify a full range of park experiences and opportunities to be made available to the visitor. Through the action and transition planning process, park staff will ensure that key representative experiences and opportunities throughout the park will be available to people with disabilities.

Social and Economic Environment

During implementation of the selected action for the park and monument, NPS staff will work with local communities and county governments to further identify potential impacts and mitigation measures that will best serve the interests and concerns of both the National Park Service and local communities. Partnerships will be pursued to improve the quality and diversity of community amenities and services.

Transportation

To determine the success of measures implemented to encourage alternative modes of travel, the National Park Service will periodically collect data on traffic volumes and vehicle occupancy; use of transit services; and amount of pedestrian and bicyclist use to, from, and within the park and monument. Based on this data, the National Park Service will expand or modify existing facilities and services for alternative transportation modes or implement other measures to increase the use of those modes.

OTHER ALTERNATIVES CONSIDERED

The *Final General Management Plan / Environmental Impact Statement* describes three alternatives and a no-action alternative, each of which are summarized below.

No-Action Alternative

The no-action alternative consists of the continuation of existing management and trends at Golden Gate National Recreation Area and Muir Woods National Monument and provides a baseline for

comparison for evaluating the changes and impacts of other alternatives. Under the no-action alternative, Golden Gate National Recreation Area and Muir Woods National Monument would continue to be managed as outlined in the 1980 General Management Plan.

Alternative 1

Alternative 1, “Connecting People with the Parks,” was the preferred alternative for park lands in Marin, San Francisco, and San Mateo counties, but not for Muir Woods National Monument and Alcatraz Island.

At Muir Woods, under alternative 1, park visitors would be offered the opportunity to experience and enjoy the primeval forest ecosystem and understand the monument’s place in U.S. conservation history through a variety of enhanced programs, facilities, and trails that access the forest and connect local communities to the park and surrounding open space. Much of the present system of forest trails would be retained at Muir Woods, but some existing facilities and use areas, such as the entrance area and parking lots, would be modified or relocated to reduce ecosystem impacts and improve the park experience. The monument would continue to welcome a diversity of visitors and support a range of experiences, better serving as a gateway or stepping stone to understanding the national park system. An off-site welcome center for the shuttle system, including parking and visitor services, would be an important first stop for orientation and a key to providing sustainable access to the monument.

Alcatraz Island would be managed to provide an expanded variety of settings and experiences that would pleasantly surprise visitors attracted by the notoriety of the prison and connect them to the greater breadth of the Island’s resources and history. The park would seek to enrich the scenic, recreational, and educational opportunities in the heart of San Francisco Bay. Visitors would have access to the majority of the island’s historic structures and landscapes to experience the layers of island history and its natural resources and settings. Many of the indoor and outdoor spaces currently inaccessible to visitors would be reopened to expand the range of available activities.

All historic structures would be preserved—most would be rehabilitated and adaptively reused for visitor activities and park operations. Food service, meeting and program space, and overnight accommodations (possibly including a hostel or camping area) would be provided.

Sensitive wildlife areas, such as the shoreline, would be protected. Park managers would provide visitors with opportunities to see wildlife and nesting waterbirds and to participate in resource stewardship activities. Gulls would be managed to reduce conflicts in visitor use areas.

Alternative 2

The emphasis of alternative 2, “Preserving and Enjoying Coastal Ecosystems,” is to preserve, enhance, and promote dynamic and interconnected coastal ecosystems in which marine resources are valued and prominently featured. This alternative would focus on engaging visitors, communities, and partners in participatory science, education, and stewardship focused on the coastal environment. Recreational and educational opportunities would allow visitors to learn about and enjoy the ocean and bay environments and gain a better understanding of the region’s international significance and history. Cultural resource sites and history would highlight the human connection to the coastal environment. Facilities and other built infrastructure could be removed to reconnect fragmented habitats and to achieve other ecosystem goals.

Management would strive to further preserve and restore the dynamic, interconnected coastal ecosystems at the core of protected lands through collaborative regional partnerships. Partners would work on common goals to sustain native biodiversity of the area, reconnect fragmented habitats and migration corridors, minimize the impact of invasive species, manage for changing fire regimes, protect threatened and endangered species, and restore naturally functioning ecosystems. Proactive management would work to build resiliency to climate change into the natural environment. ~~In San Francisco County, the~~The park—in collaboration with community partners—would also demonstrate leadership in proactive adaptation and management in the face of accelerated sea level rise.

Alternative 3

Alternative 3, “Focusing on National Treasures,” was the preferred alternative for Muir Woods National Monument and Alcatraz Island, but not for park lands in Marin, San Francisco, and San Mateo counties. In Marin County, alternative 3 shares many characteristics with alternatives 1 and 2, but the management of Marin Headlands historic core would be very different. Sheltering the best-preserved collection of seacoast fortifications in the country, the Marin Headlands tell the story of two centuries of evolving weapons technology and the nation’s unwavering efforts to protect the Golden Gate. As a result, this alternative would focus on immersing visitors in its compelling sites and history, actively using and interpreting preserved structures and landscapes ranging from Battery Townsley to the Nike Missile Launch Site.

In San Francisco County, the focus would be on the collection of historic sites and the dynamic coastal landscape that defines San Francisco’s coastline from Fort Mason to Fort Funston. Park managers would focus on connecting visitors to nationally important sites joined by the San Francisco Bay Trail and the California Coastal Trail, thus creating a scenic and historic corridor. Notably, the park would expand interpretive programs and visitor services at popular destinations in the county to enable residents and visitors to further appreciate the significant landmarks and landscapes.

In San Mateo County, park lands and ocean environments would be managed as part of a vast network of protected lands and waters, just as they would be under the other alternatives. This alternative, however, would highlight how this “quilt” of undeveloped land in the county has been protected by numerous organizations. Over the past decades, the National Park Service, local governments, private land trusts, and dedicated individuals have collaborated to acquire and preserve this “wilderness” next door. This alternative would focus on protecting resources in the park while developing recreational and interpretive connections between sites managed by other land managers.

BASIS FOR DECISION

This Record of Decision has been developed in accordance with the policies and purposes of the National Environmental Policy Act of 1969, as amended (42 USC 4371 et seq.), which requires relevant environmental documents, comments, and responses be part of the record in making decisions. Furthermore, the act requires that the alternatives considered by the decision makers are encompassed by the range of alternatives discussed in the relevant environmental documents and that the decision maker consider the alternatives described in the environmental impact statement.

A full range of alternatives was developed as part of the environmental impact statement and through the consideration of public comments during the scoping and alternatives development stages of the planning process. These alternatives were then analyzed, compared, and revised

using a process called Choosing by Advantages (CBA), which allows the agency to evaluate the relative advantages of the alternatives, determine the importance of those advantages based on park purpose, ~~and related~~ public interest, ~~and other factors~~, and assess ~~whether those the cost effectiveness of the advantages are worth their associated costs~~. NPS understanding of public interest was drawn from comments made to the preliminary alternatives described in newsletter 4.

The topics that the planning team used to evaluate the relative advantages among the alternatives were

- Strengthen the integrity and resiliency of coastal ecosystems.
- Strengthen the integrity of resources that contribute to the National Register of Historic Places, national historic districts, and national historic landmarks.
- Support a diversity of recreational opportunities and national park experiences.
- Improve and promote public understanding of park resources, identity, and NPS values.
- Provide visitors with safe and enjoyable access to and circulation within the park.

After comparing the alternatives using the above topics, the National Park Service identified alternative 1 as representing the greatest advantage for park lands in Marin, San Francisco, and San Mateo counties, and that alternative 3 represents the greatest advantage for Muir Woods and Alcatraz Island. Weighing advantages and disadvantages was one of the factors used in determining the selected action (alternative 1 for park lands in Marin, San Francisco, and San Mateo counties, and alternative 3 for Muir Woods and Alcatraz Island).

The selected action is also based on extensive NPS analysis of the beneficial and adverse impacts of all the alternatives. The results of this analysis, found in Volume II, Part 10 of the *Final General Management Plan / Environmental Impact Statement*, demonstrate that the preferred alternatives have the greatest beneficial effect across a range of park and monument resources and values including natural and cultural resources, visitor use and experience, socioeconomics, transportation, park management, operations, and facilities.

The selected action ~~is also based on~~ considered 541 pieces of correspondence on the draft plan that were received from individuals, organizations, and government agencies. No significant concerns were raised that could not be addressed by minor modifications to the plan. Where appropriate, recommended changes were made to provide more clarity, refine proposed management strategies, or provide factual corrections, and were reflected in the *Final General Management Plan / Environmental Impact Statement*.

Ultimately, after weighing the results of the CBA process, the environmental impacts analysis, and the comments received during the public comment period on the draft plan, the National Park Service selected alternative 1 for park lands in Marin, San Francisco, and San Mateo County and alternative 3 for Muir Woods National Monument and Alcatraz Island. These alternatives were chosen as the selected action because they provide the best combination of strategies to protect unique natural and cultural resources and visitor experience, while improving operational effectiveness and sustainability. Alternative's 1 and 3 also provide a range of other advantages to park managers, communities, partners, and stakeholders.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative that promotes the national environmental policy expressed in the National Environmental Policy Act (section 101[b]). This includes alternatives that

1. “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
5. achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life’s amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources” (NPS DO 12 Handbook, section 2.7D).

The planning team and other NPS staff identified that the alternatives were similar with respect to criteria 1, 2, 5, and 6, and furthermore, park and monument staff continually work to achieve these factors as a basic course of implementing the legal mandates for Golden Gate National Recreation Area. Therefore, the identification of the “environmentally preferred alternative” for each area focused on criteria 3 and 4.

Park Lands in Marin, San Francisco, and San Mateo Counties

The no-action alternative is included to provide a comparison against the action alternatives. The legal foundation for managing these park lands requires the National Park Service to provide outdoor recreation opportunities while protecting the natural, historic, and scenic values of the park. The no-action alternative does not fully provide the widest range of beneficial uses. Some park lands are not easily identifiable as public lands and are not welcoming to the park visitor. Most of the recent land additions and some existing park lands are in need of natural and cultural resource restoration or stabilization. These lands lack appropriate land use planning; therefore, the desired conditions for future recreation activities and levels of resource preservation are not defined. Through this planning process, the future desired conditions have been described for each of the action alternatives.

Alternative 2 emphasizes management of these park lands for natural resource restoration and preservation, while providing an increase in hiking and primitive recreational opportunities. This alternative identifies actions that will provide a slightly wider range of beneficial uses than the no-action alternative. But visitor opportunities will not be as diverse as those identified in alternatives 1 and 3.

Under alternative 3, the focus is on preserving and strengthening those park resources and values that have national significance. This will result in a more diverse range of visitor opportunities and greater resource restoration, protection, interpretation, and stewardship for both natural and cultural resources than is provided in the no-action alternative and alternative 2.

Under alternative 1, the emphasis is to provide a welcoming atmosphere to park visitors (improved information, facilities, and signing) while providing diverse opportunities and restoring the park’s natural and cultural resources. The emphasis on visitor opportunities, education, and stewardship provides additional actions to attain the widest range of beneficial uses of the environment without

degradation, risk of health or safety issues, or other undesirable and unintended consequences. Implementation of alternative 1 will provide the best means to preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.

After considering the environmental consequences of the alternatives, including consequences to the human environment, the National Park Service has concluded that alternative 1 is the NPS preferred alternative for park lands in Marin, San Francisco, and San Mateo counties and is also the environmentally preferable alternative. Alternative 1 best realizes the full range of national environmental policy goals as stated in section 101 of the National Environmental Policy Act.

Alcatraz Island

The no-action alternative represents the continuation of current management and was included to provide a baseline against which to compare the effects of the other (action) alternatives. The no-action is the weakest alternative in relationship to criteria 3 and 4. In this alternative, much of Alcatraz Island is not accessible to the public and therefore limits the range of beneficial uses. The primary purpose of preserving Alcatraz Island is to preserve and protect its historic resources. In the no-action alternative, minimal preservation efforts are applied to the island's historic resources. Limited visitor access and programs minimizes the range of beneficial uses.

Alternatives 1 and 2 include actions to substantially improve the current conditions of the **historic cultural** resources while strengthening the island's natural resources. A variety of natural and cultural resource restoration activities, improved public access to more areas on the island, and enhanced stewardship programs will greatly enhance criteria 3 and 4. Alternative 3 has an even higher standard of historic preservation and visitor programs that improve upon the other alternatives. In addition, alternative 3 is strengthened by incorporating many of the natural resource restoration actions that were identified in alternative 2.

After considering the environmental consequences of the alternatives, including consequences to the human environment, the National Park Service has concluded that alternative 3 is the NPS preferred alternative for Alcatraz Island and is also the environmentally preferable alternative. Alternative 3 best realizes the full range of NEPA policy goals as stated in section 101.

Muir Woods National Monument

The no-action alternative represents continuation of the existing management strategy in order to provide a baseline against which to compare the effects of the other (action) alternatives. The no-action alternative is the weakest alternative when considering criteria 3 and 4. In this alternative, the visitor experience is based primarily on self-discovery with some scheduled interpretive programs. The natural and historic resources of the national monument are protected, but continue to be impacted by past human disturbance such as streambank stabilization, locating parking facilities adjacent to Redwood Creek, and locating concession services within the old-growth redwood forest. No plan or guidance has been developed for the new land additions to Muir Woods National Monument regarding the type of visitor opportunities and the level of natural and cultural resource preservation that should be implemented. In the no-action alternative, visitor access to the national monument will continue to be by individual vehicles, tour buses, and the park's shuttle bus during the summer season—which contribute to social and environmental problems.

Alternative 2 provides substantial improvements to the natural environment through restoration work that addresses past human disturbances such as removing streambank stabilization, narrowing

trails, eliminating the majority of parking, and providing a year-round shuttle system. In consideration of criteria 3, the alternative limits the range of beneficial uses to those visitors looking to experience a more primitive and natural setting with a focus on education. The no-action alternative provides a greater variety of visitor opportunities than alternative 2. In regard to criteria 4, alternative 2 proposes to remove important historic and cultural features of our national heritage.

The actions associated with implementation of alternative 1 improve on the no-action alternative and alternative 2 by enhancing recreational opportunities such as picnicking, interpretation, and stewardship programs. The social and environmental impacts associated with parking and other past human disturbances will be improved, as well. Alternative 1 provides a good balance of addressing past human disturbances and providing a range of beneficial uses with minimal impacts.

Alternative 3 is similar to alternative 1 in balancing the restoration of past human disturbances and providing a wider range of beneficial uses. Alternative 3 is better at accomplishing criteria 3 and 4 with implementation of a comprehensive education and interpretive program, and incorporating thematic trails to help visitors easily learn about and explore the natural and cultural resources of the national monument.

After considering the environmental consequences of the alternatives, including consequences to the human environment, the National Park Service has concluded that alternative 3 is the NPS preferred alternative for Muir Woods National Monument and is also the environmentally preferable alternative. This alternative best realizes the full range of national environmental policy goals as stated in section 101 of the National Environmental Policy Act.

PUBLIC INVOLVEMENT

The *Final General Management Plan / Environmental Impact Statement* was based on input from the National Park Service, other agencies, American Indian tribes, and the public. Consultation and coordination among these groups was vitally important throughout the planning process. The public had three primary avenues for participation during development of the plan: participation in public meetings, responses to newsletters, and comments submitted via the National Park Service PEPC website and regular mail.

Scoping

Public involvement in the plan began in 2006 when the National Park Service invited the public to participate in scoping—identifying the scope or range of issues the plan would address. The legal requirement (Notice of Intent) of informing the public that the National Park Service was beginning to prepare an environmental impact statement for a general management plan was published in the *Federal Register*, vol. 71, no. 60, March 29, 2006. In early April 2006, a newsletter (the first of five), was sent to more than 4,000 contacts on the park's mailing list to solicit public input regarding concerns and desired conditions in the park. The newsletter included a postage-paid reply form. Nearly 300 electronic and mailed comments were received in response to the newsletter. In tandem with the newsletter, the National Park Service held five public open house events in Marin, San Francisco, and San Mateo counties to gather additional input. The meetings were held at building 201 at Fort Mason (April 19, 2006), the Pacifica Community Center in Pacifica (April 20, 2006), building 201 at Fort Mason (April 22, 2006), Bay Model in Sausalito (April 26, 2006), and the Peninsula Community Foundation building in San Mateo (April 27, 2006). The National Park Service also hosted focused meetings with environmental, historic, and diversity organizations, as well as

meetings with American Indian representatives, current park partners, and groups that included some park founders in order to collect broad input.

The information gathered in these outreach activities was summarized in a newsletter (2), “What We Heard,” which was distributed in February 2007 through the park’s mailing list. With the distribution of newsletter 2, the National Park Service began to routinely employ a set of tools that included the following: feedback sessions at quarterly open house events held in neighboring communities; distribution of project information by e-mail; translation of newsletters or parts of newsletters into Chinese and Spanish; distribution of project information at other park sites such as Alcatraz Island and Muir Woods, which are popular with national and international visitors; posting project information on the park website (www.nps.gov/goga), and on the NPS planning website, (<http://parkplanning.nps.gov/goga>); and briefings for park partners and interested organizations.

All public scoping comments and the NPS analysis of those comments were documented in a report, Scoping Summary 2006, General Management Plan, and made available on the park’s website and on the NPS planning website.

Public Meetings and Outreach

Public involvement in developing the management alternatives described in the final general management plan was focused on two tasks. First, a set of alternative concepts was prepared to describe a range of different ways that the scoping issues could be addressed. These different concepts were the main subject of newsletter 3, which was distributed in the fall of 2007.

Second, a robust description of “Preliminary Alternatives” was distributed by mail in the spring of 2008 (newsletter 4). A summary of newsletter 4 was published in Chinese, Spanish and Tagalog. Public comment was available from April 29 to August 1, 2008. The alternatives described how the different concepts were leading to different park management actions. The National Park Service employed some additional methods to distribute the preliminary alternatives and gather feedback. These tools included:

- members of the planning team set up seven “Planning Tables” between March and September 2008 at special events and park sites, such as the Marin City Labor Day Festival, the Run for the Seals event, Tennessee Valley, Rodeo Beach, Half Moon Bay State Beach, Crissy Field, and Point Reyes National Seashore
- “Planning Walks” where the public was invited to walk various sites with members of the planning team
- hikes in the park led by NPS interpretive rangers
- special community meetings, such as with the residents of Muir Beach

The core public involvement activity centered on a series of five public open house events dedicated to discussion of the preliminary alternatives. These events were held in June 2008, in Sausalito, San Francisco, Woodside, Pacifica, and Moss Beach. Altogether, these workshops were attended by approximately 300 people.

As a result of these actions, the National Park Service gathered a substantial volume of comments. More than 200 responses were posted by individuals and groups on the park website. More than 180 letters and comment forms were received from a variety of individuals, organizations, and agencies. Overall, more than 45 people provided some 1,500 comments on the preliminary alternatives. All public comments, petitions, and letters, including the planning team’s analysis of

those comments, were documented in a report, "Summary of Public Comments on the Preliminary Alternatives," and made available on the NPS planning website in 2008.

Release of the Draft General Management Plan / Environmental Impact Statement

The Draft General Management Plan / Environmental Impact Statement was released for public review and comment from September 9, 2011 to December 9, 2011. The Notice of Availability was published in the *Federal Register*, vol. 76, no. 175, September 9, 2011. During this draft review window, National Park Service informed the public of the opportunity to comment through email messages to over 1,750 individuals, a press release, and printed communications, including a 64-page summary edition that was mailed to approximately 3,500 addresses. Park staff hosted three public meetings in the Bay Area to gather comments and answer questions on the proposed plan. The meetings were held September 24, 2011, in San Francisco; September 27, 2011, in Pacifica; and October 4, 2011, in Mill Valley.

By the end of the public review and comment period, which was extended 30-days in response to requests from the public, the National Park Service had received 541 correspondences about the draft plan from individuals, organizations, and government agencies. A total of 2,936 comments were derived from all correspondence sources. Comments covered a wide range of topics, but the most frequently cited concerns were: concerns that the Draft General Management Plan / Environmental Impact Statement emphasized conservation values too heavily in comparison to recreational values; concerns that certain proposals in the Draft General Management Plan / Environmental Impact Statement may have adverse effects on waterbird habitat on Alcatraz Island; opposition to "natural" land management zoning in areas where dog walking is currently permitted; questions on various elements of the NEPA analysis; and concerns about the effects of the Draft General Management Plan / Environmental Impact Statement on neighboring public lands.

After thorough analysis of the comments, it was determined that very few substantial changes were needed and the overall vision remained largely the same. However, a number of changes were made to the alternatives. Notable changes made in response to public comments include clarifying text related to how conservation and recreation values were being balanced on park lands; adjustments to management zones and zoning descriptions to address concerns about restrictions on public access; and removing a proposal for an offsite welcome center for Muir Woods. Also, due to concerns about possible conflicts between management authorities, the proposed boundary adjustment related to Bolinas Lagoon was removed from the plan, but park staff will continue to provide technical assistance regarding restoration and management in a task force led by Marin County.

A report titled "Comments on, Changes to, and Responses to Comments on the Draft Plan" is included in Volume II, Part 12, of the *Final General Management Plan / Environmental Impact Statement*. The report summarizes the substance of the comments received during this draft review period and provides a collection of NPS responses to the various categories of concerns that were raised.

Release of the Final General Management Plan / Environmental Impact Statement

The Final General Management Plan / Environmental Impact Statement was released on April 25, 2014. The Notice of Availability was published in the *Federal Register*, vol. 79, no. 80, April 25, 2014. The public was informed of the release through email messages to over 1,200 individuals, a press release, and postcards which were mailed to approximately 3,500 addresses. The 30-day no action period ended on May 26, 2014.

Comments Received-Developments Following Release of the Final General Management Plan / Environmental Impact Statement

~~During the 30-day no-action period following~~ Following release of the GMP/FEIS, the park received 13 letters and one petition from the public. Letters received were from 7 organizations, including Congressman Jared Huffman, the Marin County Board of Supervisors, City of Sausalito, City of Mill Valley, Crissy Field Dog Group, Mount Tamalpais Task Force, and Watershed Alliance of Marin, the last two being virtually identical. Individuals commenting were residents of San Francisco (1), Muir Woods Park (1), and Muir Beach (48), where 47 residents signed a form letter. The petition was initiated by a San Francisco resident through Change.org, and as of June 28 had been signed by 3,300 people. The letters and petition were thoroughly reviewed and considered by the National Park Service.

Several letters and the petition expressed-reiterated concerns that were either non-substantive or that had already been raised during the comment period on the Draft General Management Plan / Environmental Impact Statement, and that the National Park Service responded to in the *Comments on, Changes to, and Responses to Comments* section of the General Management Plan / Environmental Impact Statement, (Volume II, pages 391-448). These concerns included a perceived change in management to diminish recreation contrary to the park's enabling legislation, the adequacy of analysis regarding special status species in Redwood Creek, assertion that 561 commenters on the DEIS indicates inadequate involvement by the public/ gateway community in the planning process and contention that park visitors will negatively impact emergency response in the event of a catastrophe. The petition contends that recreational access to the park is in jeopardy as National Park Service plans to "deny significant public use for longstanding activities like hiking, surfing, bike riding, horseback riding, and dog walking in popular places" for "no credible reason". Several concerns derive from misunderstandings about the relationship between the GMP and other ongoing projects in the park, including the Dog Management Plan and Muir Woods Reservation System Plan which have their own detailed analysis-planning and public involvement processes. The National Park Service is committed to working with these commenters, as with all interested parties, during implementation of the General Management Plan / Environmental Impact Statement.

No new issues or questions were raised that would require modification to the General Management Plan / Environmental Impact Statement or would lead to the selection of other alternatives or change the determination that the preferred alternative is the environmentally preferred alternative.

However, ~~two three issues were raised that points~~ would benefit from further clarification. The following constitutes clarification of these issues.

1. Relationship between the General Management Plan / Environmental Impact Statement and the Dog Management Plan:

The history of National Park Service efforts to manage dog walking began with the establishment of the park in 1972. A series of interim policies and inconclusive planning efforts led the park to initiate preparation of a Dog Management Plan / Environmental Impacts Statement in February, 2006. Scoping for the general management plan began shortly afterwards, in March 2006, with the understanding that the programmatic general management plan would defer site-specific dog walking uses to the already ongoing Dog Management Plan.

Planning for the general management plan utilized information about the current condition of park and monument resources and developed a set of desired conditions to be achieved and maintained in the future, which is one of the congressionally-mandated roles for the plan.

(Volume I, page 57). The desired conditions are elaborated in a spectrum of eight management zones, with guidance for managing resource, the visitor experience, and the general levels of development in each zone. An extensive array of compatible recreational activities is identified for each zone. These are not full lists, as is stated (Volume I, page 63), in part, because the General Management Plan / Environmental Impact Statement explicitly deferred decisions about dog walking uses to be made in the Dog Management Plan.

In the General Management Plan / Environmental Impact Statement, the National Park Service explained that the plan would not make decisions about dog walking as a use in the park, and deferred site-specific decisions regarding dog walking to the Dog Management Plan. (Volume I, page 34). The General Management Plan / Environmental Impact Statement also states on the same page that the National Park Service could make “minor” adjustments to the General Management Plan / Environmental Impact Statement based on the outcome of the Dog Management Plan, which will not be completed for at least another year. In the ‘Comments on, Changes to, and Responses to Comments’ section of the plan, the National Park Service ~~states that in the event of inconsistencies~~ further clarifies the relationship between the General Management Plan / Environmental Impact Statement and the Dog Management Plan, ~~the Dog Management would take precedence over the General Management Plan / Environmental Impact Statement for this specific use. The This~~ language, in Volume 2II, at page 399, more clearly communicates the relationship between the two plans: “the GMP and dog management plan are separate and distinct planning efforts; if real or perceived inconsistencies are found, the final dog management plan would take precedence over the GMP for this particular use.” ~~and the~~ The National Park Service will apply this language in the event there are any inconsistencies between the two plans.

The language referring to dog walking in the Diverse Opportunity Zone at Fort Funston (Volume I, page 133) was ~~not~~ intended to acknowledge some of the popular recreational activities that would likely continue at that site. However, this statement is not a decision about dog walking at Fort Funston. The make decisions that will be determined by the Dog Management Plan will make decisions about the future of that activity at Fort Funston.

2. Improvements east of Panoramic Highway in the vicinity of Homestead Hill:
The General Management Plan / Environmental Impact Statement states, “A small trailhead parking lot could be developed in the vicinity of the former White Gate Ranch. Improvements east of Panoramic Highway in the vicinity of Homestead Hill could enhance trail and transit access to Muir Woods and other nearby park destinations.” (Volume I, page 124). And, “NPS would work with California State Parks to encourage development of a small trailhead parking and picnic area near Santos Meadow and the Frank Valley horse camp, and improve access to this zone.” (Volume I, page 125).

The statement on page 124 is not intended to suggest construction of a new parking lot on Panoramic Highway to serve Muir Woods visitors. A parking lot was mentioned as an idea in a scoping meeting for Muir Woods transportation planning projects in September 2013. Based on public concerns and agency analysis, this idea has been eliminated from further consideration. The National Park Service will not construct a parking lot on Panoramic Highway. Future improvements in the area could include wayfinding signage, trail enhancements, and an improved bus stop for the West Marin Stagecoach which currently runs along Panoramic Highway.

Regarding the statement about White Gate Ranch (page 124), the National Park Service clarifies that a future trailhead parking lot in that area would be intended to facilitate safe access to the adjacent trails ~~network~~, and would be sized based on several factors, including resource sensitivity, the use levels of local trails, topography, and the rural character of that

site. NPS understanding of those factors led to describing a possible lot as small. It is not considered a feasible site to serve as an intercept lot or major staging area for visitors to Stinson Beach or Muir Woods.

Regarding the statement about Santos Meadow (page 125), the National Park Service clarifies that the concept for a small trailhead parking lot and picnic area at Santos Meadow, a property within the jurisdiction of managed by California State Parks, is to cooperate in the improvement of existing facilities for visitors of the horse camp and connecting state and national park trails, and to improve access to the adjacent NPS property at the former Banducci flower farm, which could become a stewardship center for the area, consistent with the rural character and limited infrastructure of the NPS property.

~~3. Relationship between the GMP/FEIS analysis and future park projects:~~

~~The general management plan is a programmatic vision document that provides outlines the broad guidance for future management of the park. Throughout the GMP/FEIS, it is noted that the plan provides a framework to direct more detailed implementation planning and management direction for the park over the next 20 years. The GMP and FEIS note that prior to implementation of specific actions in the plan, Implementation of site specific ideas and concepts outlined in the GMP may be years in the future and will have their own planning processes with additional detailed studies, planning and compliance would be conducted, to understand current conditions and issues. These projects will include substantial public involvement. (Implementation Planning, Volume I, page 299, other FEIS sections). The scope and detail of the GMP/FEIS is consistent with the conceptual nature of this long term programmatic planning document.~~

AGENCY AND AMERICAN INDIAN COORDINATION AND CONSULTATION

Endangered Species Act, Section 7 Consultation

The Endangered Species Act of 1973, as amended, requires in section 7(a)(2) that each federal agency, in consultation with the Secretary of the Interior, ensure that any action the agency authorizes, funds, or implements is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. This section describes the consultation process as implemented by regulation 50 *Code of Federal Regulations* (CFR) 402.

During the preparation of the draft general management plan, the National Park Service contacted the Sacramento office of the U.S. Fish and Wildlife Service and the Santa Rosa office of NOAA (National Marine Fisheries Service) to begin the consultation process for section 7 of the Endangered Species Act. In accordance with the Endangered Species Act and relevant regulations from 50 CFR 402, the National Park Service determined that the preferred alternatives in the general management plan are not likely to adversely affect any federal listed threatened or endangered species.

In September 2011, the National Park Service sent copies of the Draft General Management Plan / Environmental Impact Statement to the above offices for review. The document included an embedded biological assessment analysis to conform with the requirements of section 7 of the Endangered Species Act.

The National Park Service received consultation correspondence from the U.S. Fish and Wildlife Service in a letter dated February 20, 2014 (see appendix B of this Record of Decision). This correspondence states that no further section 7 compliance is needed at this time because no

actions that would affect listed species are being taken at this time. In the context of the *Final General Management Plan / Environmental Impact Statement* being a broad, programmatic planning document, the correspondence from the U.S. Fish and Wildlife Service also states the National Park Service shall commence section 7 consultation once specific actions and projects identified in the plan are further defined. The National Park Service commits to fulfilling this compliance consultation in the implementation phase of the general management plan.

The National Park Service also received consultation correspondence from NOAA-National Marine Fisheries Service in a letter dated November 10, 2011 (included in appendix G of the *Final General Management Plan / Environmental Impact Statement*). The correspondence included supportive comments regarding section 7 compliance and one correction to a species listing status, which was addressed in the *Final General Management Plan / Environmental Impact Statement*. Also, it should be noted that the general habitat conservation suggestions in the correspondence are consistent with NPS *Management Policies 2006* for natural resource management in the park. The National Park Service followed up this correspondence with an e-mail inquiry dated March 12, 2013, to officially confirm that the National Marine Fisheries Service concurred with the determinations of effect in the Draft General Management Plan / Environmental Impact Statement. To date, the National Park Service has not received a response. However, considering the generally supportive comments in the above-referenced review correspondence from the National Marine Fisheries Service and the National Park Service commitment to consult with the agency upon implementation of actions in the plan, the National Park Service concluded informal consultation with NOAA-National Marine Fisheries Service.

National Historic Preservation Act, Section 106 Consultation

Prior to implementing an “undertaking,” section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the state historic preservation office a reasonable opportunity to comment on any undertaking that will potentially affect properties listed or eligible for listing in the national register. An undertaking is defined as “a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval.”

In 2006, consultation and scoping began with the California state historic preservation office, other agencies, tribes, and interested parties regarding the general management plan. The National Park Service sent a letter on February 7, 2006, to the state historic preservation office and the Advisory Council on Historic Preservation inviting their participation in the planning process. In a letter dated May 29, 2008, the state historic preservation office and Advisory Council were given the opportunity to provide feedback in the development of preliminary alternatives. In addition, NPS representatives held a scoping meeting with interested historic preservation groups on April 18, 2006. NPS staff also traveled to Sacramento to meet with the state historic preservation office on March 16, 2010. Prior notification of the meeting was provided to the Advisory Council. Topics covered during the meeting included:

- review of the proposed alternatives in the Draft General Management Plan / Environmental Impact Statement
- discussion of the review and submittal process under section 106
- discussion of the appropriate methodology for establishing the area of potential effects
- discussion on the preparation of the finding of effect

- preparation of a parkwide programmatic agreement

Documentation associated with the National Historic Protection Act, section 106 compliance was then prepared by the National Park Service as a separate submittal in coordination with the NEPA process. In a letter to the state historic preservation office dated November 20, 2012, the National Park Service sought concurrence on the extent of the area of potential effect and the identification of historic properties as required under 36 CFR 800.4. The state historic preservation office concurred with the National Park Service on these issues in a letter dated January 10, 2013. The National Park Service then prepared a finding of adverse effect and submitted it to the state historic preservation office on April 23, 2013.

Section 106 consultation for the *Final General Management Plan / Environmental Impact Statement* has now been completed through the execution of a comprehensive parkwide programmatic agreement for the treatment of historic resources. This agreement is among the National Park Service, state historic preservation office, Federated Indians of Graton Rancheria, the Advisory Council on Historic Preservation, and Presidio Trust. The National Park Service commits to complete the section 106 review for each undertaking that may stem from this general management plan in accordance with the 2014 programmatic agreement.

Native American Consultation

On April 26, 2006, meetings were held with Ohlone and Coast Miwok representatives to discuss issues, concerns, and opportunities related to the planning process. On November 20, 2012, a letter was sent to the tribal representatives notifying them of the NPS determination of the area of potential effect.

On April 13, 2013, these representatives were mailed a copy of the NPS finding of effect letter and notification of the intent to prepare a programmatic agreement. On September 17, 2013, tribal representatives were mailed a copy of the draft programmatic agreement. In an accompanying letter, the tribal representatives were asked to provide comments and input on the draft document and invited to sign the agreement as concurring parties. Tribal consultation is ongoing and will continue as the National Park Service implements the proposed undertakings identified in the general management plan in accordance with the ~~2013-2014~~ programmatic agreement.

Coordination with other Local, State, and Federal Agencies

During preparation of the general management plan, NPS staff held a series of public agency roundtables with local, state, and federal agencies such as California State Parks, the National Oceanic and Atmospheric Administration, and Marin County, and local organizations ~~such~~ as including the San Mateo County Historical Association. Three roundtable discussions were held. First, general scoping of these agencies was conducted concerning the upcoming general management plan. Second, preliminary alternatives were presented and discussed. Finally, a review of the draft general management plan was presented and discussed with the various local agencies.

Consultation with ~~other~~ agencies also included determining whether the general management plan was consistent with the Coastal Zone Management Act. Based on the anticipated benefits to coastal resources associated with the selected action, the National Park Service has determined that the selected action is consistent with the Coastal Zone Management Act. Copies of the Draft General Management Plan / Environmental Impact Statement were sent to the California Coastal Commission and the San Francisco Bay Conservation and Development Commission requesting their concurrence with this determination.

Both commissions responded by letter. The San Francisco Bay Conservation and Development Commission provided comments on the draft general management plan and the NPS consistency determination in December of 2011. The commission stated the requirement for project-specific consultation as components of the general management plan are carried out in the future within their jurisdiction. The commission also summarized the major policies of the San Francisco Bay Plan that must be considered by the National Park Service during site-specific planning and development efforts. The California Coastal Commission provided comments on the draft general management plan and concurred with the NPS consistency determination in December 2012. The letters from both agencies are included in volume II, appendix G, of the general management plan.

APPENDIX A: NONIMPAIRMENT DETERMINATION

National Park Service *Management Policies 2006* require analysis of potential effects to determine whether or not actions will impair park resources. 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. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give the National Park Service management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, 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. An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact will 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; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact will be less likely to constitute an 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.

The park resources and values that are subject to the no-impairment standard include:

- park 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
- any additional attributes encompassed by the specific values and purposes for which the park was established

Impairment findings are not necessary for visitor use and experience, socioeconomic, public health and safety, environmental justice, land use, and park operations because impairment findings relate

to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Fundamental resources and values are those critical to achieving the park's purpose and maintaining its significance. Fundamental resources and values for the park and monument are identified in volume I, part I of the general management plan. These fundamental resources and values are covered under the impact topics that follow.

NATURAL RESOURCE TOPICS

Nonimpairment determinations were made for air quality, soils and geologic resources and processes, water resources and hydrologic processes, habitat, and federal and state threatened and endangered species.

Air Quality

The park and monument are within class II air quality areas under the Clean Air Act, as amended. A class II designation indicates the maximum allowable increase in concentrations of pollutants over baseline concentrations of sulfur dioxide and particulate matter as specified in section 163 of the Clean Air Act.

The California Clean Air Act of 1988, as amended, sets stricter ambient air quality standards than the federal standards and requires local air districts to promulgate and implement rules and regulations to attain those standards. Under the act, California Ambient Air Quality Standards are set for all pollutants covered under national standards, as well as vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. If an area does not meet the California standards, it is designated as a state nonattainment area.

Golden Gate National Recreation Area and Muir Woods National Monument are in the San Francisco Bay Area Air Basin, which consists of San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Napa, and Marin counties, as well as portions of Sonoma and Solano counties. The San Francisco Bay Area is designated a federal nonattainment area for ozone and a state nonattainment area for ozone and inhalable particulate matter.

The selected action will have both beneficial and adverse impacts on air quality. The actions with the most substantial beneficial effects will occur at Muir Woods National Monument, where the Muir Woods shuttle will be expanded in conjunction with the removal of approximately 25% of the parking areas. This is expected to decrease the gross emissions of the monument by 20%. The primary adverse effects are associated with dust and exhaust emissions during development activities, the potential for increased ferry traffic to Alcatraz Island, and increased vehicular traffic to the park and monument as result of expanding visitor use; however, these activities are not expected to cause national ambient air quality standards to be exceeded because visitation increases will be relatively small and the level of new development proposed is minimal.

Air quality affects the park's ecological systems and the overall visitor experience, and park managers are committed to protecting air quality in the park and monument. Any amount of pollutants added because of the implementation of the selected action will be negligible compared to existing levels and none of the proposals described in this plan will violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant for which the Bay Area is in nonattainment under federal or state ambient air quality standards. Overall, the class II air quality

status of the park and monument will be unaffected by the selected action, and therefore, the selected action will not result in impairment of air quality.

Soils and Geologic Resources and Processes

Geologic processes have an influence on all the resources in Golden Gate National Recreation Area and Muir Woods National Monument. The majority of the lands within the park and monument are on the North American Tectonic Plate. The more recently acquired park lands in San Mateo County are on the Pacific Plate. Faulting and uplift along the margins of these plates have created many of the terrain features in the Bay Area landscape, but these processes have also left unstable slopes (subject to landslides and mass wasting) throughout the area.

In the Bay Area, rocks of the Franciscan Complex that were created when the Pacific Plate subducted beneath the North American Plate form the basement for the Coast Ranges east of the San Andreas Fault. The Franciscan primarily consists of graywacke sandstone and argillite, but also contains lesser amounts of greenstone, radiolarian ribbon chert, limestone, serpentinite, and a variety of high-grade metamorphic rocks.

A number of soil types are present in the Bay area. Most of the soils within Golden Gate National Recreation Area belong to the following complexes: Blucher-Cole, Centissima-Barnabe, Cronkhite-Barnabe, Dipsea-Barnabe, Felton Variant-SoulaJule, Franciscan, Gilroy-Gilroy Variant, Bonnydoon Variant, Henneke stony clay loam, Kehoe, Rodeo Clay Loam, and Tamalpais-Barnabe Variant (USDA, Soil Surveys for Marin, San Francisco, and San Mateo counties). All of these soils are susceptible to sheet and rill erosion when disturbed or exposed. In general, these soils are characterized by slow to moderate permeability, rapid stormwater runoff, and a high hazard of soil erosion, soil creep, and occasional landslides. Alcatraz Island is composed of consolidated sandstone sediments. Much of the soil on the island is a result of importation from Angel Island during fort construction or soil amendments added over the years. At Muir Woods, the primary soil types are Centissima-Barnabe, basalt, and Franciscan formation sandstones.

The protection of soils and geologic resources and processes is important for sustaining the natural systems in the area. Implementation of the selected action will have both beneficial and adverse impacts on soils and geologic resources and processes. Specific actions that will result in beneficial impacts include the elimination of unsustainable roads and trails, trail relocations, the removal of facilities and structures, and restoration of disturbed sites and creeks.

Some adverse impacts will occur as the selected action is implemented, but they will be minor and localized. The primary adverse impacts are soil disturbance, compaction, and increased erosion because of new recreational development and expanded visitor use in some areas. Overall, these adverse effects will be small in scale, and mitigation measures will be used to ensure that adverse effects are minimized. Therefore, the selected action will not result in impairment of soils and geologic resources and processes.

Water Resources and Hydrologic Processes

Water resources in Golden Gate National Recreation Area and Muir Woods National Monument include springs, streams, ponds, lakes, wetlands, lagoons, San Francisco Bay, and the Pacific Ocean. Many significant watersheds are wholly or partially within the park and monument. From north to south, the major watersheds are Bolinas Lagoon, Redwood Creek, Tennessee Valley (Elk Creek), Rodeo Lagoon (including Gerbode Valley subwatershed), Nyhan Creek, Lobos Creek, Milagra and Sweeney Ridges, West Union Creek, San Pedro Creek, Martini Creek, Denniston

Creek, San Vicente Creek, and the San Francisco watershed lands in San Mateo County. Many smaller watersheds drain the steep coastal bluffs directly into San Francisco Bay or the Pacific Ocean.

The National Park Service has been monitoring water quality and quantity in varying degrees within these aquatic systems. Most water quality sampling to date has focused on specific sites with known or suspected water quality impacts, including beach water quality monitoring. The National Park Service is presently designing a more comprehensive monitoring program that should identify any existing impacts and serve as baseline data to determine future impacts. For the lands in the southern part of the park (San Francisco and San Mateo counties), this work will also include an inventory of the largely unknown water resources. The monitoring will be coordinated through the San Francisco Bay Area National Parks Science and Learning, a network of regional national park sites.

The protection and restoration of water resources and hydrologic processes in the park and monument is important for sustaining the natural systems of the area. Implementation of the selected action will have both beneficial and adverse effects on water resources and hydrologic processes. Beneficial effects will stem from specific actions such as removal and reclamation of facilities and structures, creek and riparian restoration, restoration of watershed processes, and the removal of unsustainable trails and unneeded management roads. On the whole, these actions are expected to improve natural hydrologic regimes in the park and monument.

The primary adverse effects are related to the following specific actions: new recreational development, expanded visitor use, historic structure rehabilitation, facility improvements, cleaning the primary visitor use areas at Alcatraz Island, and increased vessel traffic in the San Francisco Bay. However, the adverse impacts created by these actions will be minor and localized, and mitigation measures will be used to minimize negative impacts. Therefore, the selected action will not result in the impairment of water resources and hydrologic processes.

Habitat (Vegetation and Wildlife)

The park and monument contain a diverse variety of habitats that support a rich assemblage of wildlife. Wildlife habitats within the park and monument include introduced eucalyptus and closed-cone Monterey pine and cypress forests; hardwood, mixed evergreen, Douglas-fir, redwood, and riparian forests; coastal scrub; annual and perennial grasslands; freshwater and saline wetlands and wet meadows; and estuarine, lacustrine, marine, and riverine aquatic habitats. At least 387 vertebrate species are known to occur within these habitats inside park boundaries. Species lists include 11 amphibians, 20 reptiles, 53 fish, 53 mammals, and 250 birds.

Alcatraz Island ~~is a~~provides valuable ~~natural~~ habitat for colonial waterbirds due to favorable currents and nearshore foraging areas. Hence, the island supports a diverse assembly of marine and estuarine colonial nesting birds. Species of particular interest are black-crowned night herons, pigeon guillemots, Brandt's and pelagic cormorants, and western gulls.

Healthy vegetation and wildlife are critical to the natural integrity and public enjoyment of Golden Gate National Recreation Area and Muir Woods National Monument. The implementation of the selected action will have both beneficial and adverse impacts on vegetation and wildlife.

The primary beneficial effects of the selected action are related the following: the extensive use of natural and sensitive resources management zones, the development of a sustainable trail system, the elimination of unneeded roads, habitat restoration efforts, and participatory stewardship programs. The primary adverse effects are disturbances to vegetation and wildlife due to

construction activities, new recreational development, improvements to existing recreational facilities, and the expansion of visitor access and use. However, these adverse effects will not be substantial and/or will be localized.

On Alcatraz Island, the selected action could have moderate adverse impacts on waterbirds and their nesting sites due to activities such as allowing visitors access to more of the island and the rehabilitation of historic buildings. However, beneficial actions will also be taken to ensure that minimum numbers of waterbird nesting pairs are maintained—such as monitoring efforts, closing marine waters in the vicinity of nesting sites during breeding season, and protective management zones.

If it becomes evident that implementation of the selected action has the potential to have major adverse effects and will result in long-term or permanent loss of waterbird nesting colonies (with the exception of western gulls), park staff will use adaptive management techniques and take the necessary measures to ensure the continued viability of breeding populations on Alcatraz Island. These steps could include allowing only nonbreeding season access to the parade ground or limiting the types and scale of uses in the north end of the island during nesting seasons. Altogether, these actions will ensure that adverse impacts on waterbirds (with the exception of western gulls) do not exceed the moderate intensity threshold, and that viable waterbird populations are sustained over the long term. In addition, waterbird habitat will be improved in other parts of the park.

Overall, the selected action will not result in impairment of vegetation and wildlife in the park and monument. The selected action is expected to result in the improvement of habitat conditions as a whole. Some adverse effects of moderate intensity could occur as the selected action is implemented, but these effects will be reduced by mitigation measures and adaptive management.

Federal and State Threatened and Endangered Species

The vegetation communities described in the previous section also provide important habitat for numerous rare or special status wildlife and plant species (i.e., federal and state listed species, species of special concern, and candidate species) within the lands and waters of the park and monument. These special status wildlife species are permanent park residents, seasonal residents, or rely on park land and waters for migration. Twenty-seven wildlife species in Golden Gate National Recreation Area and/or Muir Woods National Monument are listed as threatened or endangered under the Endangered Species Act, as amended (16 USC 1536 [a] [2] 1982). Fourteen of the wildlife species that occupy the lands and waters of the park are also listed as threatened or endangered by the California Endangered Species Act.

Fourteen plant species present in the park and monument are listed as threatened or endangered under the Endangered Species Act, as amended (16 USC 1536 [a] [2] 1982); 12 of these are federal endangered and 2 are federal threatened; 11 of the plant species present in the planning area are also listed as threatened or endangered by the California Endangered Species Act.

To evaluate the effects of actions in the alternatives on federal and state listed species in the park and monument, a set of species considered likely or possible to experience impacts were selected for assessment in the General Management Plan / Environmental Impact Statement. These species were the California red-legged frog, mission blue butterfly, tidewater goby, San Francisco garter snake, San Bruno elfin butterfly, coho salmon (central California coast), steelhead trout (central California coast), western snowy plover, northern spotted owl, San Francisco lessingia, and bank swallow.

The protection of threatened and endangered species in Golden Gate National Recreation Area and Muir Woods National Monument is important for sustaining biodiversity and the long-term health of the area's ecological system. Implementation of the selected action will have beneficial and adverse impacts. The primary beneficial impacts are associated with the following specific actions: extensive use of natural and sensitive resources management zones (~~77% of the park and~~ 85% of the monument), creek restoration activities, restoration of upland habitat, and vegetation management (including nonnative plant removal).

Adverse effects will occur as a result of the selected action, but they will be minor and localized. The primary adverse effects are associated with new recreational development and expanded visitor use in certain areas and from the short-term disruption of water regimes and in-stream habitats during creek restoration activities. However, mitigation measures will reduce the extent and intensity of these adverse impacts. Furthermore, the beneficial actions described above are expected to improve habitat conditions as a whole in the park and monument. Therefore, the selected action will not result in impairment of federal and state threatened and endangered species.

CULTURAL RESOURCES TOPICS

Nonimpairment determinations were made for historic districts, structures, and cultural landscapes, archeological resources, ethnographic resources, and park collections.

Historic Districts, Structures, and Cultural Landscapes

The planning area covered in the General Management Plan / Environmental Impact Statement includes 4 national historic landmarks and 15 properties listed in the National Register of Historic Places. The four national historic landmarks are Alcatraz Island, the Presidio of San Francisco, the San Francisco Bay Discovery Site, and the San Francisco Port of Embarkation. The properties listed in the national register include the Dipsea Trail, Fort Baker, Barry, and Cronkhite, Muir Beach Archeological Site, Muir Woods National Monument, Point Bonita Historic District, remains of the steamship *Tennessee*, Camera Obscura, Fort Mason Historic District, Fort Miley Military Reservation, *King Philip/Reporter* Shipwreck Site, Point Lobos Archeological Site, Pumping Station 2 (San Francisco Fire Department Auxiliary Water Supply System), Six Inch Gun No. 9 at Baker Beach, Point Montara Light Station, and the San Francisco Veterans Affairs Medical Center. In addition, eight other properties are eligible for listing in the National Register of Historic Places, and over two dozen properties are potentially eligible. Together, these landmarks and properties make up a complex web of cultural landscapes, buildings, structures, sites, and other features.

Implementation of the selected action will have both beneficial and adverse impacts on historic districts, structures, and cultural landscapes in the park and monument. Specific actions with beneficial impacts include stabilization, rehabilitation, and restoration of many historic buildings and structures, regular patrols by park staff to deter vandalism or inadvertent damage to historic resources, and visitor education programs.

In some instances, individual projects will result in adverse impacts, due to modifications to structures or sites and/or new facilities or structures being added to the landscape. At Alcatraz Island, minor adverse impacts also are expected to occur as a result of increased visitor access and use, such as the provision allowing for overnight ~~visitor stays at the island~~ accommodations.

However, throughout the park and monument, adverse impacts will be minimized through mitigation measures—such as designing and siting all new landscape features to harmonize with their historic setting. In addition, the overarching strategy for the management of historic buildings, districts, and cultural landscapes is one of preservation and rehabilitation for continued uses. Therefore, the

selected action will not result in impairment of historic districts, structures, or cultural landscapes in the Golden Gate National Recreation Area or at Muir Woods National Monument.

Archeological Resources

Currently, there are 8 identified historic archeological sites in the monument and approximately 263 inventoried archeological sites in the park; 171 are within the area of potential affects for this plan. However, baseline archeological surveys, required under Executive Order 11593 and section 110 of the National Historic Preservation Act, have not been conducted for most of the original park lands or newly acquired lands. Specifically, less than 7% of Golden Gate National Recreation Area has been surveyed for precontact and historic archeological sites, and a comprehensive archeological survey of Muir Woods National Monument is still needed. Only 2% (925 acres) of the lands considered for discussion in the General Management Plan / Environmental Impact Statement have been surveyed. Further study and consultation with American Indian tribes is needed to determine the significance of many of these sites.

As a result of this need for additional survey, assessment, and consultation, archeological resources in the park and monument are subject to deterioration from natural erosion processes and inadvertent but deleterious visitor, park management, or partner activities, vandalism, and looting.

Implementation of the selected action will result in both beneficial and adverse effects on archeological resources in the park and monument. The primary beneficial effects are associated with the following actions: strategic archeological surveys of previously unsurveyed park areas in advance of construction, demolition or expanded visitor use, avoiding known or discovered archeological sites during the modification or relocation of recreational facilities, providing stabilization and security for known archeological resources commensurate with their significance and sensitivity, and incorporating archeological resources into interpretive programs at the park and monument, thus enhancing their protection through increased awareness and understanding. As appropriate, and in accordance with section 106 consultation requirements, monitoring will accompany construction activities to ensure that if archeological resources are discovered, construction will cease in the area of discovery until the resources and anticipated impacts are assessed and measures are implemented to avoid and/or mitigate adverse effects.

The primary adverse effects are ground-disturbing activities related to new recreational development, expanded visitor use, erosion and natural processes, and rising sea levels caused by climate change.

Overall, the selected action will not result in impairment of archeological resources because there will be no major adverse effects anywhere in the park and monument and because mitigation measures will be used to reduce adverse effects. The section 106 determination of effect on archeological resources in the park and monument is “no adverse effect,” except for the *King Philip* and *Tennessee* shipwrecks and their associated remains. The section 106 determination for the two shipwrecks is “adverse effect” due to erosion and natural processes. However, these adverse effects will be moderate in nature and localized.

Ethnographic Resources

Currently, there may be ethnographic resources and traditional cultural properties within the boundaries of Golden Gate National Recreation Area and Muir Woods National Monument, but they have not been formally evaluated. Research and consultation with affiliated tribes and descendants is still needed to clarify this issue.

While ethnographic resources have not been formally evaluated within the park and monument, Alcatraz Island does have great ethnographic significance for American Indians due in large part to an internationally publicized protest from November 1969 to June 1971. During this protest, Alcatraz Island was occupied by “Indians of All Tribes” to focus attention on the plight of American Indians and to assert the need for Indian unity and solidarity for achieving self-determination and securing political rights. Since the occupation, the island has become a symbolic focal point of American Indian pride and solidarity among relocated American Indians in the San Francisco Bay Area, as well as in the nation at large.

Beneficial impacts for potential ethnographic resources at Alcatraz Island are primarily related to analysis and cataloging of ethnographic resources and an evaluation of the island’s potential for listing in the National Register of Historic Places as a traditional cultural property in consultation with American Indian tribes and groups. This analysis/evaluation will be given higher priority than other areas of the park and is expected to enhance the island’s cultural resource research and interpretive programs. While the above described actions are generally expected to result in beneficial impacts to potential ethnographic resources, adverse impacts are also possible. However, mitigation measures and consultation with Native American Tribes should minimize the likelihood of adverse impacts occurring.

Therefore, the selected action will not result in the impairment of ethnographic resources. Under the selected action, the section 106 determination of effect on ethnographic resources/ traditional cultural properties in Golden Gate National Recreation Area and Alcatraz Island is “no adverse effect.” For the monument, the section 106 determination is “no resources or properties affected.”

The Collections

The park and monument’s collections are precontact and historic objects, works of art, archival documents, and natural history specimens valuable for the information they provide about processes, events, and interactions among people and the environment. The collections consist of the following components: archival (6 million items), history (19,334 items), archeological (430,773 items), and natural history (1,970 items). The collections are housed in 13 separate facilities throughout the park and monument that function as visitor centers, interpretive exhibits, or dedicated storage areas. The collections are vulnerable to impairment due to unstable staffing levels, lack of a lease agreement at two collections repositories, and deteriorating structural conditions.

Implementation of the selected action will have beneficial impacts on the collections, and hence, the selected action will not result in impairment of the park and monument’s collections. The most substantial beneficial impacts will stem from the consolidation of the collections into fewer, and improved facilities.

CONCLUSION

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the superintendent’s professional judgment that there will be no impairment of park resources and values from implementation of the selected action.

APPENDIX B: CONSULTATION CORRESPONDENCE FROM THE U.S. FISH AND WILDLIFE SERVICE



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:
08ESMF00-2013-I-0662

FEB 20 2014

Memorandum

To: General Superintendent, National Park Service, Golden Gate National Recreation Area, San Francisco, California

From: *for* Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento Fish and Wildlife Office, Sacramento, California *Ryan Olah*

Subject: General Management Plan/Environmental Impact Statement Endangered Species Act Consultation

This memorandum is in response to the National Park Service Golden Gate National Recreation Area's (GGNRA) March 5, 2013 request for consultation with the U.S. Fish and Wildlife Service (Service) for your General Management Plan/Environmental Impact Statement (Management Plan). This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S. C. 1531 *et seq.*) (Act).

The GGNRA's Management Plan covers activities on National Park lands in Marin, San Francisco, and San Mateo Counties. GGNRA will manage these lands for public use as well as habitat restoration and preservation. The Management Plan will be implemented through future facility rehabilitation, historic preservation, natural resource restoration, facility removal, and new construction. These activities would be broken down into projects which will be implemented as funding and need arise. Once specific projects from GGNRA under the Management Plan are further defined, section 7 consultation with the Service under the Act will commence. No section 7 consultation is needed at this time since no actions that would affect listed species are being taken at this time.

Therefore, unless new information reveals effects of the project that may affect federally listed species or critical habitat in a manner not identified to date, or if a new species is listed or critical habitat is designated that may be affected by the proposed action, no action pursuant to the Act is necessary at this time.

If you have any questions regarding this response on the GGNRA's General Management Plan/Environmental Impact Statement, please contact Ryan Olah, Coast Bay/Forest Foothills Division Chief at the letterhead address, at (916) 414-6625 or via email at ryan_olah@fws.gov.

APPENDIX C: STATEMENT OF FINDINGS

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**Appendix D: PROGRAMMATIC AGREEMENT AMONG THE GOLDEN
GATE NATIONAL RECREATION AREA, NATIONAL PARK SERVICE,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND THE
CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING OPERATIONAL AND MAINTENANCE ACTIVITIES IN
GOLDEN GATE NATIONAL RECREATION AREA**