

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



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

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**General Management Plan  
RECORD OF DECISION**

Approved:

A handwritten signature in blue ink, appearing to read "Christine S. Lehnertz".

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

A handwritten date in blue ink, "01/30/2015".

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.<sup>1</sup> 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), the Statement of Findings for Executive Order 11988, “Floodplain Management” (appendix C), and the Programmatic Agreement among the National Park Service and the California State Historic Preservation Office and the Advisory Council on Historic Preservation (appendix D).

**BACKGROUND OF THE PROJECT**

The purpose of the general management plan is to provide 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’s expansion in size and inclusion of new lands in San Mateo County; (2) increased demand for access to, and use of, open spaces in the San Francisco Bay area; (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) evolving local transportation infrastructure has changed how visitors access the park; and (6) to comply with federal law.

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<sup>1</sup> 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.”

## **Implementation of the Plan**

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, as appropriate would be conducted. The scope and detail of the actions described and the impact analysis conducted for the general management plan 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, under the management concept titled, 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. 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 natural, cultural, scenic and recreational qualities that are enjoyed today and will improve access to the park for visitors. Park managers will work to preserve and restore historic resources, and 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 visitor facilities at these sites will be improved.

Park lands will remain an outdoor recreationist’s paradise with an extensive network of trails through dramatic landscapes. 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 to the park. The identity of these diverse park sites as part of the national park system will be strengthened. Visitors will be introduced to the Golden Gate National Recreation Area 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 and learning from historic places 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 connections to 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, under the management concept titled, 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 National Park Service 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 help the National Park Service 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

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 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 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 the property can be included in the park's boundary, while the others are considered “minor boundary revisions,” and thus, do not require congressional authorization.

The proposed boundary adjustments are:

1. Nearshore ocean environment in San Mateo County: The 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 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 is addressed in the Golden Gate National Recreation Area Fire Management Plan. The Golden Gate National Recreation Area Fire Management Plan Amendment for Rancho Corral de Tierra (2014) addresses this site which was not included in the (2008) fire management plan. Owned by the Peninsula Open Space Trust, the Gregerson property was not included in the fire management plan update, but could be added at a later update following a boundary change and acquisition, if approved and funded. The fire management plan document addresses 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 these agencies, 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.

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 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 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 where determined necessary to maintain a cultural landscape or to prevent severe resource damage as approved by 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 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 Office of Historic Preservation 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 Office of Historic Preservation and, as appropriate, 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 project 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 Office of Historic Preservation, 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 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 National Park Service 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. The National Park Service—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 National Park Service 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, public interest, and other factors, and assess the cost effectiveness of the advantages. NPS understanding of public interest was drawn from comments made on 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. The National Park Service incorporated several ideas from alternative 2 that were identified as providing many advantages into alternatives 1 and 3. 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 also 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 impact 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 provide park visitor experiences, while improving operational effectiveness and sustainability. Alternatives 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 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 NPS 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* is 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 several avenues to participate in the development of the plan. To elicit public input, the National Park Service hosted public meetings, open houses, special events in different locations. The National Park Service mailed newsletters, postcards and email updates to a list of interested parties that grew to more than 4,000 addresses over the course of the planning process. Critical information was often summarized into Spanish, Chinese and Tagalog. Outreach efforts resulted in newspaper articles and other media coverage. The National Park Service maintained an email address and telephone number dedicated to receive comments and questions about the plan. Formal comments were also submitted by regular mail and on the National Park Service's PEPC website.

### **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), the 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 email; 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](http://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 in the spring of 2008 (newsletter 4). A summary of newsletter 4 was published in Chinese, Spanish and Tagalog. The public comment period ran from April 29 to August 1, 2008. The newsletter 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. Events were publicized in the quarterly "Park Adventures" which had printings of 10,000 and were distributed around the park and in public venues. These tools included:

- "Planning Tables" with NPS staff between March and September 2008 set up 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, including Muir Woods, Tennessee Valley, and Rancho Corral de Tierra
- Hikes in the park led by NPS interpretive rangers knowledgeable of the plan
- Special meetings, such as with the residents of Muir Beach and at San Francisco Urban Research (SPUR)

The core public involvement activity for the preliminary alternatives 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, the National Park Service received more 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 for 60-days on September 9, 2011. The Notice of Availability was published in the *Federal Register*, vol. 76, no. 175, September 9, 2011. (The EPA notice was printed on September

9, whereas the National Park Service notice was printed on September 12, 2011.) In recognition of the complexity of the proposed plan alternatives (in two volumes), and with deference to interest from the public and interested organizations, the comment period was reopened and extended through December 9, 2011. During this review window, the 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 of the NPS preferred alternative 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, at Fort Mason in San Francisco; September 27, 2011, at Ingrid B. Lacy Middle School in Pacifica; and October 4, 2011, at Tamalpais High School in Mill Valley.

By the end of the public review and comment period, the National Park Service had received 542 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 and consideration of the comments, it was determined that changes to the document were needed and that the overall vision for the park remained largely the same. Changes were made to refine and clarify the alternatives. Notable changes made in response to public comments include clarifying how conservation and recreation values were being balanced on park lands consistent with the NPS Organic Act, *Management Policies*, and the park’s enabling legislation which directs the Secretary of the Interior to provide for recreation and educational opportunities while preserving the recreation area in its natural setting. Land management zones and zoning descriptions were adjusted to reduce restrictions on public access in “Natural” and “Sensitive Resources” management zones. A proposal for an offsite welcome center for Muir Woods was eliminated. Also, due to concerns about possible conflicts between management authorities, the proposed boundary adjustment related to Bolinas Lagoon was removed from the plan, with the understanding that existing authorities enable the park to 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 substantive comments received during this draft review period and presents 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 EPA notice was printed on April 25, whereas the National Park Service notice was printed on April 30, 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.

## **Developments Following Release of the Final General Management Plan / Environmental Impact Statement**

Following release of the Final General Management Plan / Environmental Impact Statement for public inspection, the National Park Service received 16 letters and one petition. Letters received were from 8 organizations, including Congressman Jared Huffman, State Assemblymember Phil Ting, the San Francisco Board of Supervisors, Marin County Board of Supervisors, San Mateo County Board of Supervisors, City of Sausalito, City of Mill Valley, Crissy Field Dog Group, Montara Dog Group, Save Our Recreation, Mount Tamalpais Task Force, and Watershed Alliance of Marin. 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 January 15, 2015 had 7,765 supporters. The letters and petition were thoroughly reviewed and considered by the National Park Service in preparing this document.

Several letters and the petition reiterated concerns 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 opportunities for recreation contrary to the park’s enabling legislation. The Change.org 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.” Similar concerns are addressed in Volume II, pages 393-398, including reference to continuing to support current activities as well as providing for new opportunities and services that will enhance the visitor experience. Other concerns involve the adequacy of analysis regarding special status species in Redwood Creek, and contend that park visitors will negatively impact emergency response in the event of a catastrophe. These concerns are addressed in Volume II, pages 438 to 448.

One letter asserts that 561 commenters on the draft plan indicates inadequate involvement by the public/gateway community in the planning process. The National Park Service does not have a quantitative standard for determining what an adequate public response is to a draft plan. Factors that led the National Park Service to consider public involvement and comment adequate for this plan include the receipt of comments that cover a broad range of topics, the effectiveness of communications with the public in earlier stages of the planning process, and the way in which the preferred alternative was developed to address concerns expressed by the public and agencies on the preliminary alternatives that were described in newsletter 4. The commenters on the draft plan also included 15 agencies, and 17 recreational and conservation organizations that represent large numbers of stakeholders. The thorough public involvement process for the plan is described in an earlier section of this document.

Several concerns derive from misunderstandings about the relationship among the general management plan and other ongoing projects in the park, including the Dog Management Plan and Muir Woods transportation planning projects which have their own, separate, detailed 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, three 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 National Park Service 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 initiated 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 statutory requirements of the plan. (Volume I, pages 57-66). The desired conditions are elaborated in a spectrum of eight management zones; each zone includes guidance for managing resource, the visitor experience, and the general levels of development in the zone. An extensive array of typical recreational activities is identified for each zone. These are not full lists of compatible recreational activities, 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 Final 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; also Volume I, page 34 in the Draft General Management Plan / Environmental Impact Statement). The Final 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 has not been completed at this time. In the “Comments on, Changes to, and Responses to Comments” section of the plan, the National Park Service further clarifies the relationship between the Final General Management Plan / Environmental Impact Statement and the Dog Management. This language, in Volume II, 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.” 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 Opportunities” zone at Fort Funston (Volume I, page 133) was 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 Dog Management Plan will make decisions about the future of that activity at Fort Funston.

2. Planned improvements east of Panoramic Highway in the vicinity of Homestead Hill.

The Final 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 Final General Management Plan / Environmental Impact Statement also includes responses to comments on the Draft General Management Plan / Environmental Impact Statement about transportation (Volume II, pages 405 to 409).

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 on Panoramic Highway was discussed as one idea in a scoping meeting for Muir Woods transportation planning projects in September 2013. However, 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 and trail enhancements.

Regarding the statement about White Gate Ranch (page 124), the National Park Service clarifies that a future trailhead parking lot in that area, if developed, would be intended to facilitate safe access to adjacent trails and would be sized based on several factors, including resource sensitivity, 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 staging area for visitors to Stinson Beach or Muir Woods. References to White Gate Ranch apply to the NPS property adjacent to Panoramic Highway above Stinson Beach, not to other similarly named properties near 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 is to cooperate with the California State Parks (the agency that owns the property) 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, consistent with the rural character and limited infrastructure of the NPS property. Improvements at Santos Meadow would not be related to access for Muir Woods.

3. Managing Visitors to Muir Woods National Monument.

The National Park Service received comments on the Final General Management Plan recommending that visitation to Muir Woods National Monument should be limited to no more than 750,000 people per year in order to protect the environment. The Final General Management Plan is a programmatic plan. It includes qualitative statements about the appropriate types and levels of visitor use in different areas of the monument based on desired resource and visitor experience conditions. In the case of Muir Woods, the Final General Management Plan identifies indicators and standards that will be monitored by the National Park Service to ensure that desired resource and visitor experience conditions are achieved. (User Capacity, Volume I, pages 279-295.) Table 30 in the Final General Management Plan identifies possible management actions that could be taken if desired

conditions cannot be achieved under current use levels and patterns. Some of the management actions identified for the Monument can be implemented without additional planning. Others however, such as the suggested limit on the amount of visitors to a specific number, would need to be considered in an implementation-level plan before they could be adopted.

Implementation-level planning allows for detailed and site-specific analysis and decision-making. In fact, the Final General Management Plan identifies such an implementation-level plan and states that “in order to better assess [the need to manage use levels further], the National Park Service would continue to conduct analysis of visitor use patterns as part of planning for the redesign of the monument’s entrance and parking areas, which is proposed in this plan’s action alternatives. The implementation plan would closely examine the need for further regulation of the amount and timing of use as part of the alternatives for reduced parking and an increased emphasis on shuttle access.” (Volume I, page 291.) The National Park Service began the public scoping on this implementation-level plan in September 2013.

## **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 the National Marine Fisheries Service (NOAA) 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 has concluded informal consultation with NOAA-National Marine Fisheries Service on this programmatic plan.

### **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 Office of Historic Preservation, 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, with Presidio Trust as a concurring party. 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. Further consultation resulted in the Federated Indians of Graton Rancheria, representing Coast Miwok people, being invited to sign the programmatic agreement. 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 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 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 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.

End

## 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, socioeconomics, 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 base 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 provides valuable 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 (approximately 75-85% of the park and 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 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, sound 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.

End

## 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](mailto:ryan_olah@fws.gov).

**APPENDIX C: STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11988**

# STATEMENT OF FINDINGS

For Executive Order 11988, "Floodplain Management"

Golden Gate National Recreation Area and  
Muir Woods National Monument

2014 General Management Plan

Recommended:  July 2, 2014  
Superintendent, Golden Gate National Recreation Area Date

Concurred:  7/11/2014  
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## INTRODUCTION

In accordance with Executive Order 11988, “Floodplain Management” and National Park Service (NPS) guidelines for implementing the order, the National Park Service has reviewed the flood and tsunami hazards in the Golden Gate National Recreation Area (Golden Gate NRA or park) and Muir Woods National Monument (Muir Woods)<sup>1</sup> and has prepared this statement of findings (SOF). The geographic scope of this statement of findings is limited to the planning area for the 2014 General Management Plan / Environmental Impact Statement (GMP/EIS), which excludes some coastal park properties where there may be additional resources and visitor use areas at risk.

By examining the locations of structures, operations, and major visitor use areas, the sites listed below were identified as having park facilities and/or visitor amenities within a regulatory 100-year floodplain mapped by the Federal Emergency Management Agency (FEMA) and/or a tsunami inundation zone (FEMA 2011; California Emergency Management Agency 2009).

### MARIN COUNTY

1. **Stinson Beach:** Tsunami hazard generally west of Highway 1 and flood hazard in areas adjacent to Easkoot Creek
  - Facilities: Heavily visited beach, a small entrance booth, two paved parking lots (approximately 3 acres total), an unpaved overflow parking lot, a picnic area, three restroom structures with associated infrastucture, a snack bar building with lifeguard office, three staff quarters for essential occupancy, three maintenance shops, and a maintenance yard
2. **Muir Beach:** Tsunami hazard generally southwest of Highway 1 and flood hazard in areas adjacent to Redwood Creek
  - Facilities: Heavily visited beach, a new parking lot (165 cars), a restroom building, a picnic area, and a 235-foot-long elevated pedestrian bridge
3. **Muir Woods:** Flood hazard in areas adjacent to Redwood Creek
  - Facilities: A visitor center, restroom structure, and two parking areas
4. **Fort Cronkhite and Rodeo Beach:** Tsunami hazard generally west of Bunker/Mitchell Road
  - Facilities: Heavily visited beach, at least five wood-frame structures, a section of Mitchell Road and associated roadside parking, a vehicular bridge, a pedestrian bridge, and a 40-car parking area

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<sup>1</sup> Golden Gate NRA and Muir Woods National Monument are collectively referred to as the Golden Gate NRA throughout this report.

5. **Fort Baker:** Tsunami hazard in Horseshoe Cove
  - Facilities: Several wood-frame structures, access roads, boat docks, slips, and piers

## **SAN FRANCISCO COUNTY**

6. **China Beach:** Tsunami hazard generally west of Sea Cliff Avenue
  - Facilities: A small recreational beach, concrete bathhouse, and service road
7. **Ocean Beach:** Tsunami hazard generally west of Great Highway
  - Facilities: A 4-mile-long recreational beach, three concrete seawalls, restroom, and parking lot complex at Sloat Avenue
8. **Fort Funston:** Tsunami hazard on narrow beach backed by 200-foot bluffs
  - A recreational beach (no facilities)

## **SAN MATEO COUNTY**

9. **Rancho Corral de Tierra:** Flood hazard in areas adjacent to San Vicente Creek
  - Structures: two equestrian boarding facilities with various structures and use areas

This statement of findings focuses on evaluating the flood and tsunami hazards for the nine aforementioned sites in the 100-year floodplain and tsunami inundation zone. As part of the effort to develop a general management plan for Golden Gate NRA, the statement of findings describes the flood and tsunami hazard, alternatives, and possible mitigation measures for the continued use of these sites. Additional detail regarding lands and resources, future actions to be taken in the area, and environmental impacts may be found in the General Management Plan / Environmental Impact Statement.

The analysis focuses on major structures and heavily visited areas in the General Management Plan / Environmental Impact Statement that fall within either the 100-year regulatory floodplain and/or tsunami inundation zone. Other areas of Golden Gate NRA are subject to occasional flooding due to seasonal high water levels. However, flooding in these areas does not pose a threat to human life, structures, or contribute to the degradation of natural floodplain values.

## DESCRIPTION OF THE SITES AND USES

### STINSON BEACH

Stinson Beach is a popular recreational beach southeast of Bolinas Lagoon. The beach and adjacent community (also known as Stinson Beach) lie on a narrow strip of land at the base of the coastal hills along the Pacific Ocean. Easkoot Creek—a small perennial stream that drains a watershed of 1,062 acres—passes through the site and empties into Bolinas Lagoon, an ecologically important tidal area.

The tsunami inundation zone and 100-year floodplain encompass the majority of the site. NPS facilities in these zones include an access road and vehicular bridge over Easkoot Creek, a small entrance booth, two paved parking lots (approximately 3 acres total), an unpaved overflow parking lot, a picnic area, three restroom structures, a snack bar building with lifeguard office, three staff quarters for essential occupancy, three maintenance shops, and a maintenance yard. The developed area that contains most of these facilities and related utilities is on the back side of the primary sand dune along the beach. Portions of the developed area are immediately adjacent to Easkoot Creek.

### MUIR BEACH

Muir Beach is a small, popular recreational beach along the Pacific Ocean at the base of the hillside community of Muir Beach. Redwood Creek—a perennial stream that drains a watershed of approximately 9 square miles—flows into the Pacific Ocean at the site. Muir Beach also has a trailhead with trails leading to Tennessee Valley, Muir Woods, and Mount Tamalpais State Park.

Muir Beach facilities include a parking lot (165 cars), restrooms, a picnic area, and a 235-foot-long elevated pedestrian bridge over Redwood Creek that provides access from the parking area onto the beach. The parking lot, restrooms, picnic area, and pedestrian bridge were newly constructed in 2013 at elevations above the Redwood Creek floodplain. However, the recreational beach is within the 100-year floodplain for the creek. All of these facilities and beach recreation areas, including the Marin County road and bridge that provides access to the site, are within the tsunami inundation zone.

### MUIR WOODS

Muir Woods is located in the geographic center of the Redwood Creek watershed, which encompasses about nine square miles from Mount Tamalpais to the Pacific Ocean at Muir Beach. Ninety-five percent of the watershed is publicly owned, although it's managed by a number of different local, state, and federal land management agencies. Approximately 2 miles of Redwood Creek passes through Muir Woods. There is no tsunami risk at this inland site.

The location and extent of the 100-year floodplain have not been identified by FEMA or the National Park Service for Golden Gate NRA. However, according to FEMA data, much of the property along Redwood Creek is in “an area of undetermined but possible flood hazards.” A number of facilities and structures are presumed to be in or adjacent to the floodplain including portions of the Ben Johnson Trail, which parallels the creek, a small visitor center, a restroom building, and two parking areas (the 30-car main lot and 115-car annex).

## **FORT CRONKHITE AND RODEO BEACH**

Fort Cronkhite is a former World War II military post of about 50 structures along Rodeo Lagoon in the Marin Headlands. The barracks, mess halls, supply buildings, and other structures are preserved and currently house numerous facilities used by Golden Gate NRA partners and the National Park Service. Partner facilities at Fort Cronkhite include the Golden Gate Raptor Observatory, Marine Mammal Center, and an educational facility operated by NatureBridge, a park partner. Rodeo Beach is a popular recreational beach along the Pacific Ocean just west of Fort Cronkhite.

Rodeo Beach and Rodeo Lagoon, and their associated recreational uses, are within the tsunami inundation zone. However, most Fort Cronkhite structures are above the tsunami zone. The Fort Cronkhite facilities within the zone include a segment of Mitchell Road with visitor parking (40 cars), a segment of Bunker Road including a roadway bridge at the upper end of the lagoon, a restroom and portion of a paved parking lot, a steel pedestrian bridge, a lift station for the sanitary sewer, and at least five historic buildings. More precise mapping of the 100-year floodplain may identify other structures at risk.

## **FORT BAKER**

Fort Baker is a 335-acre former U.S. Army post immediately northeast of the Golden Gate Bridge on San Francisco Bay. The 100-year floodplain has not been identified for this area by FEMA or the National Park Service. For purposes of this analysis, the floodplain is considered as coterminous with the tsunami inundation zone. Facilities in the tsunami zone include several wood-frame structures, access roads, boat docks, slips, and piers in and around Horseshoe Cove.

## **CHINA BEACH**

China Beach is a small recreational beach in a cove between Baker Beach and Land's End. The sand beach, a bathhouse, and a service road are within the tsunami inundation zone. The parking area for the beach is situated on high ground above the cove, and public beach access is via a service road and stairway from the parking lot. Swimming is discouraged due to unpredictable surf conditions, but the beach is popular for fishing and sunbathing.

## **OCEAN BEACH**

Ocean Beach is a heavily visited recreational beach that stretches for 4 miles from Cliff House to Fort Funston. Beach visitors are recreating in the tsunami inundation zone. The parking areas for the beach are on higher ground slightly above the beach and are owned by the City of San Francisco, except for the Sloat Avenue facilities, which are owned by the National Park Service. The NPS property within the tsunami inundation zone at Ocean Beach includes three sections of concrete seawall behind portions of the beach and a restroom and parking lot complex at Sloat Avenue. The vast majority of the NPS property used for recreation consists of sand beach and dune fields.

## **FORT FUNSTON**

Fort Funston includes a heavily visited recreational beach. The beach is narrow in width and is backed by bluffs ranging in height from 50 to 200 feet. Beach visitors are recreating in the tsunami inundation zone. Park facilities are on the bluffs above the beach. Public beach access is via unpaved trails from a parking area. Several structures are in the upper area (atop the bluffs), including a parking lot, restrooms, maintenance facility, a native plant nursery, and buildings used for educational programs offered by a park partner. There are no facilities in the 100-year floodplain or tsunami zone at Fort Funston.

## **RANCHO CORRAL DE TIERRA**

The Rancho Corral De Tierra property was transferred to Golden Gate NRA in 2011 and baseline information is still being developed for the area. The property managed by the NPS is approximately 3,900 acres in size and is largely undeveloped. The property encompasses rugged hills with elevations up to approximately 1,800 feet. The terrain is composed of coastal shrub and coastal chaparral habitat. The area's recreational trail network makes it a popular destination for equestrians and hikers. None of this property is within the tsunami inundation zone.

Two large equestrian boarding facilities (Moss Beach Ranch and Ember Ridge, approximately 160 horses combined) with stables, paddocks, and other supporting structures are alongside San Vicente Creek. These facilities are operated by a private concessioner. Measured data is not available for the creek, but periodic flooding of San Vicente Creek could affect some or all of these equestrian facilities and put park visitors and horses at risk.

## **JUSTIFICATION FOR USE OF THE FLOODPLAIN / TSUNAMI INUNDATION ZONE**

### **DESCRIPTION OF SELECTED ALTERNATIVE AND WHY FACILITIES WOULD BE RETAINED IN THE FLOODPLAIN / TSUNAMI INUNDATION ZONE**

Under the selected alternative in the general management plan, park facilities at each of the nine park sites would be retained at their existing locations. The rationale behind retaining these structures in their existing locations in the 100-year floodplain and/or tsunami inundation zone is based on the following general rationales:

- Most of the structures were stable and usable when the National Park Service assumed management and ownership of these sites, and some structures contribute to the list of park resources in the National Register of Historic Places.
- The ocean beaches have a long history as popular recreational destinations among the population of the Bay Area.
- The National Park Service has no records of past flooding effecting occupied structures at any of these sites.
- Relocating the facilities and services at these sites may be infeasible and very costly from both a financial cost perspective and from a quality of service perspective.
- The structures at these sites are already on disturbed ground. Moving the facilities would likely result in adverse impacts and the loss of other natural resource values (possibly including endangered species) in the area.
- Many of the structures at these sites are connected to the municipal sewer and water utility systems, which avoids the need for individual septic and well systems and the resource impacts they would bring.
- The sites have direct access to roadways and trails that provide quick evacuation routes to higher, inland areas.

A more detailed justification for the use of the facilities at each respective site follows. The site-specific descriptions also include a brief summary of the analysis of alternative locations conducted during development of the general management plan and previous planning efforts. During alternative development for this general management plan, sea level rise, tsunami, and flood risks were considerations. Site-specific implementation planning and renovations of existing structures will consider flood and tsunami hazards and potential mitigation measures in more detail.

### **STINSON BEACH**

- Stinson is the park's only swimming beach in Marin County and accounts for over 800,000 visitors annually.
- The site came to the National Park Service by transfer from the State of California upon establishment of Golden Gate NRA in 1972 and already had a long history as a recreational destination.

- There are very few alternatives to relocating facilities because the site is bounded by residential development.
- Maintenance facilities are required in this area due to the long distances between Stinson Beach and other park maintenance facilities.

## **MUIR BEACH**

- Muir Beach is a popular recreational site and accounts for over 350,000 visitors annually.
- The site came to the National Park Service by transfer from the State of California upon establishment of Golden Gate NRA in 1972 and already had a long history as a recreational destination.
- The facilities required to support a recreational beach have been constructed to avoid damage in the event of a 100-year flood as defined in the Big Lagoon Environmental Impact Statement.
- Alternative sites for facilities were evaluated in the Wetland and Beach Restoration at Big Lagoon Environmental Impact Statement, 2008.

## **MUIR WOODS**

- The national monument was established under the Antiquities Act in 1908 and was already a popular recreational area at that time. The inspirational qualities of the old-growth redwood forest and its proximity to San Francisco make it one of the most popular park sites, accounting for almost 900,000 visitors in 2012.
- Many existing facilities are contributing resources to this national register property. Removing certain features could adversely affect its historic integrity.
- Detailed site planning studies currently in progress indicate that there are very few opportunities to relocate essential facilities out of the floodplain due to other physical and environmental constraints.
- The trails along Redwood Creek provide unique opportunities for interpreting the history of the site such as the United Nations ceremony for President Franklin D. Roosevelt held in Cathedral Grove in 1945. Visitors using the trails also have immediate access to high ground due to branching trails that climb the steep valley slopes in the area.

The selected alternative in the general management plan proposes several actions that could improve the hydrologic processes and floodplain function of Redwood Creek. Specifically, the selected alternative for Muir Woods proposes redesigning the arrival area and reconfiguring the remaining parking lots to better accommodate the park shuttle and commercial buses. The redesigned site would likely reduce the need for additional on-site parking to accommodate individual cars. This could also include the removal of some asphalt surfaces and replacement with a more pervious surface, which could decrease flood risk by allowing better infiltration of precipitation. Portions of trails could be relocated to allow creek and floodplain restoration as well. Targeted removal of riprap would be pursued to improve the natural hydrologic processes and floodplain function of Redwood Creek. The existing visitor center could be retained at its current location. However, the existing

restroom in the arrival area is proposed for demolition, and its replacement would be constructed at a more suitable site farther from the creek.

A sophisticated system is currently under development to manage visitor access by employing reservations for parking and remote parking areas and shuttle buses to reduce the need for additional facilities in the floodplain.

## **FORT CRONKHITE AND RODEO BEACH**

- Fort Cronkhite is a major center for park staff and programs run by Golden Gate NRA partners. Along with Rodeo Beach, the park accounts for over 4.5 million visitors to the Marin Headlands annually.
- Fort Cronkhite is listed in the national register. Most of the structures within the floodplain and tsunami zone have been identified as contributing resources.
- Rodeo Beach provides convenient public access to the Pacific Ocean and has historically been a popular beach.

## **FORT BAKER**

- This site is listed in the national register with most of the structures identified as contributing resources. Thus, relocating or removing them is not consistent with the purpose of preserving such resources.
- Planning for this area was completed in the 2000 Fort Baker Plan / Environmental Impact Statement. The general management plan does not propose changes to the plan except for management of offshore areas.

## **CHINA BEACH**

- The site is potentially eligible for listing in the national register for its architecture and design as an early post-World War II civic recreational complex. Thus, relocating or removing site features is not consistent with the purpose of preserving such resources.
- This park unit comprises a small, narrow strip of coastal land and is closely bounded by urban areas on three sides. Therefore, there are few feasible options to relocate the facilities.

## **OCEAN BEACH**

- The long, narrow beach is closely bordered by a major road (the Great Highway), dense residential neighborhoods, and is among one of the most heavily visited park units (3.5 million visitors in 2011).
- The beach is the primary ocean and beach access point for San Francisco residents because of its proximity to the city and the direct access from multiple transportation modes.
- Ocean Beach is within the coverage of the San Francisco tsunami outdoor warning system.

A recent multiagency planning effort analyzed the potential impacts to the Ocean Beach corridor due to climate change and developed a series of adaptations for further study and implementation (Ocean Beach Master Plan, SPUR 2012).

The master plan recommended retention of the O'Shaughnessy Seawall, which is potentially eligible for listing in the national register; and relocation of the NPS parking and restroom facilities at Sloat Avenue. The park is participating in implementation planning for these actions as part of the GMP selected alternative.

## **FORT FUNSTON**

- There are no facilities within the tsunami inundation zone or 100-year floodplain, and the general management plan and draft dog management plan do not propose to develop any facilities at the beach.
- The beach and upper bluffs support a high diversity of recreational activities, including hiking, dog walking, hang-gliding, and horseback riding.

## **RANCHO CORRAL DE TIERRA**

- The general management plan considered other alternatives, such as removal of the equestrian facilities, but these were not selected because they did not meet park management objectives and adequately support park enabling legislation.
- Future site-specific implementation planning will consider flood and tsunami hazards and potential mitigation measures in more detail.

## DESCRIPTION OF SITE-SPECIFIC FLOOD AND TSUNAMI RISK

The information presented below is a general characterization of the site-specific flood and tsunami risks. This information is followed by an individual analysis of the nine sites. Golden Gate NRA has produced geographic information system (GIS) maps for seven of the sites, which show the extent of the flood and tsunami risk in more detail—these maps are included in the supplemental section after the report summary. However, measured data of previous large flood and tsunami events at the sites is not available, and existing FEMA data does not provide full coverage of all the sites.

Several park sites have flooding risks associated with overbank flooding of nearby streams and blockage of stream channels caused by urban development. These sites are Stinson Beach (Easkoot Creek), Muir Woods and Muir Beach (Redwood Creek), and Rancho Corral de Tierra (San Vicente Creek). Overbank flooding typically occurs during winter and early spring, when average precipitation rates are highest in the region, strong winter storms bring periods of sustained rainfall, and soils become saturated in low lying areas surrounded by hills and bluffs. By mid to late April, precipitation rates drop off significantly in the region, and the risk of stormwater flooding decreases considerably at all sites until the following winter.

There is a general tsunami risk at nearly all of Golden Gate NRA's coastal park sites. Earthquakes generated in the Cascadia Subduction Zone, off the U.S. west coast, could produce tsunamis where the first waves strike park lands within minutes (near-source tsunami). The size and speed of the wave would depend on the magnitude of the seismic activity. Consequently, near-source tsunamis present one of the biggest risks to Golden Gate NRA visitors, staff, and facilities. Distant-source tsunamis, generated by seismic activity in more distant parts of the Pacific Plate, would allow more extensive warning and evacuation. Estimated time of arrival for a distant-source tsunami would depend mainly on the seismic activity's point of origin. For example, tsunamis produced off the Alaskan coast could reach Golden Gate NRA lands within five hours, while tsunamis produced off the coast of Japan may take between 10 to 12 hours to reach Golden Gate NRA.

### STINSON BEACH

Easkoot Creek is subject to overbank flooding due to excessive precipitation. Overbank flooding typically occurs as a result of sustained periods of precipitation during winter and early spring, when precipitation rates are highest and soils become saturated. However, overbank flooding often takes days or even weeks to occur. Wave overwash from the Pacific Ocean occasionally inundates the north parking lot at Stinson Beach during winter storms. The beach itself is subject to heavy surf, but the dune between the beach and the picnic and parking areas provides some protection from heavy surf caused by storms.

The tsunami inundation zone at Stinson Beach involves most of the public areas and NPS facilities. The zone extends generally inland to Shoreline Highway. The maintenance facilities and park residence are just outside the upper edge of the tsunami inundation zone.

## **MUIR BEACH**

Redwood Creek is prone to overbank flooding as a result of periods of heavy, sustained precipitation during the winter and early spring. The beach and dune area at Muir Beach is also subject to heavy surf and wave overwash from ocean storms.

The structures at Muir Beach have been built above the Redwood Creek floodplain, but portions of the recreational beach could be inundated by overbank flooding. Restoration work at Muir Beach and along the Banducci reach—upstream of the Highway 1 crossing—during the last decade have reconnected the creek to one of its larger floodplain areas, which will serve to reduce the potential for flooding in developed areas in lower portions of the creek.

The tsunami inundation zone at Muir Beach includes all the NPS facilities and the beach itself. A tsunami would inundate low lying areas generally along Redwood Creek to the southern end of the historic Golden Gate Dairy. No structures in the dairy are within the inundation zone.

## **MUIR WOODS**

There is no tsunami risk at Muir Woods, but much of the infrastructure is likely within the floodplain of Redwood Creek and its small tributaries. However, there are no park records of flooding of any of the occupied structures at Muir Woods. A heavily used paved trail also runs directly alongside the creek, and large segments of the trail could be inundated by significant overbank flooding.

At Muir Woods, there has long been concern about how park facilities may impact riparian and aquatic habitats, both directly and indirectly. As early as the 1980 general management plan, a priority was placed on reducing such impacts through relocation of facilities. Impervious surfaces, such as the paved trail and parking area, may reduce infiltration of precipitation and increase peak stream flows. Since the 1980s, there has been a substantial reduction in impervious surfaces within Muir Woods due to actions such as conversion of asphalt trails to elevated boardwalks. At present, the park is studying modifications to transportation infrastructure that could further reduce the extent of impervious surfaces.

## **FORT CRONKHITE AND RODEO BEACH**

The small catchment area of the Rodeo Valley watershed, the broad undeveloped upstream floodplain, and the capacity of Rodeo Lagoon all minimize the stream flooding potential at Fort Cronkhite. Undersized or clogged culverts sometimes create localized flooding on Bunker and Mitchell roads.

The tsunami inundation zone entails Rodeo Beach and Lagoon, small segments of Mitchell and Bunker roads, and at least five structures nearest the Lagoon. The cove-like curve of the coast and higher topography at the north and south ends of Rodeo Beach, could amplify the energy of a tsunami wave to a small degree at this site. A significant tsunami wave could inundate all of Rodeo Beach, which rises to approximately 20 feet above sea level and stretches across the entrance to Rodeo Lagoon. In addition, Rodeo Beach is subject to heavy surf and wave overwash during storms.

## **FORT BAKER**

Flood potential caused by precipitation at Fort Baker is generally associated with San Francisco Bay. Stormwater from the site is collected into a subsurface storm drain system and conveyed to the bay. Clogged storm drain inlets and pipes could create localized flooding during heavy storms.

The boat docks, slips, and piers in and around Horseshoe Cove lie within the tsunami inundation zone. However, the Fort Baker site is also within the San Francisco Bay Area. The effects of a tsunami on all coastal sites within San Francisco Bay—defined here as areas east of the Golden Gate Bridge—would likely be reduced due to diffusion of wave energy. The topography and terrain in the immediate area around Horseshoe Cove would likely minimize the property damage associated with a tsunami at this site, e.g., the cove is blocked from the direct energy of a potential tsunami by the bluffs at the north end of Golden Gate Bridge.

## **CHINA BEACH**

China Beach is subject to heavy surf and waves during storms and inundation from tsunamis. The beach itself, which is approximately 70 feet in width and 400 feet long, could be entirely inundated by a relatively small tsunami. However, the concrete bathhouse at the site is situated atop a 12 foot concrete seawall just above the beach. The seawall and bluffs along the coastline west of China Beach could reduce structural damage to the bathhouse by absorbing some of the tsunami's wave energy.

## **OCEAN BEACH**

Ocean Beach is subject to heavy surf and waves during storms. Bluff erosion at the southern end of the beach is commonly associated with winter storms.

This 4-mile stretch of flat recreational beach is directly along the open Pacific coastline and lies almost entirely within the tsunami inundation zone. The tsunami zone in this area extends inland up to 1,000 feet—to approximately 48th Avenue in the city of San Francisco's Sunset District. Sand dunes, which abut the Great Highway on the east side of Ocean Beach, could absorb some of the energy of an incoming wave prior to it reaching the city's residential areas. The north section of the beach, which borders Sutro Heights, is characterized by steep bluffs (up to 50 feet in height) that extend directly into the ocean. The tsunami inundation zone at the northern end of Ocean Beach does not involve park property or facilities.

## **FORT FUNSTON**

The recreational beach at Fort Funston is subject to heavy surf and wave inundation during storms and inundation from tsunamis. High tides can also inundate sections of the beach, which is bordered by bluffs ranging from 50 to 200 feet in height. The bluff edge is subject to failure and erosion caused primarily by winter storms. Park facilities at Fort Funston are in a broad flat area atop the bluffs. The facilities are set well back from the bluff edges and are not at risk of tsunami inundation or significant flooding caused by precipitation.

## **RANCHO CORRAL DE TIERRA**

There is a potential risk of flooding at and around the two equestrian facilities as a result of overbank flooding of San Vicente Creek. The creek is approximately five miles in length and drains a watershed of approximately 1,200 acres. The creek originates near a saddle in the ridgeline southeast of South Peak (elevation 1,830 feet), is fed by several smaller drainages, and trends southwest until it meets the Pacific Ocean near the community of Moss Beach. The soils along the low lying areas of the creek include Holocene alluvial deposits and poorly consolidated sand and gravel.

Measured data is not available for San Vicente Creek, but the creek's relatively small watershed, soil types that tend to drain quickly, and the undeveloped upstream floodplain, likely reduce the risk of flooding at these facilities. Flooding would most likely occur during the winter and early spring, when precipitation rates are highest.

## **TSUNAMI AND FLOOD MITIGATION MEASURES**

The highest level of flood and tsunami hazard mitigation for the structures and visitor use areas at these sites would be relocation of the facilities and/or services out of the floodplain and tsunami inundation zone. This option is not currently feasible and has high costs associated with it. Thus, this option has not been chosen by the National Park Service. In addition, none of the structures that are present in the floodplain or tsunami inundation zone have overnight use—all are day use facilities only. Therefore impacts to human life and safety should be reduced. If or when the structures reach their usable lifespan, or if a future flood or tsunami event results in severe damage, then the National Park Service would assess possibilities for relocating the facilities. The 100-year floodplain and tsunami inundation zone will be considered in the siting decisions for future development projects identified in the general management plan.

Given the proximity of these sites to flood and tsunami risks, the early, prompt, and safe evacuation of people is the primary mitigation measure available to the National Park Service. The National Park Service also has other measures that can be used to mitigate the risks to life and property associated with flooding and tsunamis. First, the selected alternative for the general management plan includes activities and restoration projects that would improve floodplain function and integrity upstream of many of these sites. Second, no irreplaceable records, archeological artifacts, or museum collections are kept in the subject structures. And third, the National Park Service will continue to regularly remove, or assist other agencies in the removal of, debris that blocks culverts and other drainage structures.

A general emergency response process for tsunami and flood events is described below. Detailed emergency response plans for flood and tsunami events will be developed during future planning efforts.

### **TSUNAMI ALERT AND RESPONSE PROCEDURES**

#### **Alert Procedures**

Park police dispatch personnel regularly monitor the California Law Enforcement Telecommunications System (CLETS) and National Warning System (NAWAS) operated by the Federal Emergency Management Agency for tsunami advisories, watches, and warnings. Depending on the level of risk (for example, a tsunami warning), park police dispatch would notify the Golden Gate NRA management team, law enforcement rangers, and park staff who are liaisons to county emergency management agencies. The park staff designed as county-level liaisons would communicate with the appropriate county emergency operations center and relay situational updates as needed. Additional notifications would go out to all park staff and partners if necessary.

#### **Response Procedures**

Golden Gate NRA law enforcement rangers (and other supporting personnel) would move to specific areas to coordinate and facilitate the evacuation of visitors and staff. In order of priority, those areas are: (1) beaches, (2) facilities and structures, and (3) coastal trails. In outdoor areas, teams will use public address systems on emergency vehicles to make roving announcements about evacuation routes and emergency assembly areas. Inside facilities, staff will communicate evacuation instructions to visitors verbally and through public address (PA) systems.

A tsunami warning will also trigger San Francisco County's emergency warning system—the Outdoor Public Warning System (OPWS). This system consists of 109 sirens that can also be used to broadcast announcements in coastal and inland areas throughout San Francisco County. These sirens are easily audible from park facilities, beaches, and trails within San Francisco. Marin County also has a working system of warning sirens that are audible at Stinson and Muir beaches.

Multiple evacuation routes are available to staff and visitors at these sites.<sup>2</sup> In a critical tsunami scenario (e.g., a large tsunami is expected to strike in less than an hour following seismic activity), evacuees would be instructed to move uphill by any means available to a point at least 50 feet above sea level. The terrain at Golden Gate NRA coastal areas should provide sufficient opportunities for evacuees to quickly move uphill out of the tsunami inundation zone. General directions for evacuees are presented below for each site in the event of a tsunami warning. The directions are intended to move evacuees to immediate safety and are consistent with the current emergency management plans of local jurisdictions:

- **Stinson Beach:** Move to Highway 1. Move to high ground by traveling south on Highway 1 (note: Bolinas Lagoon sits within the inundation area).
- **Muir Beach:** Move to Highway 1. Travel southeast on Highway 1 to high ground.
- **Fort Cronkhite and Rodeo Beach:** Travel east to Bunker Road, move east on Bunker Road to high ground (note: Rodeo Lagoon sits within the inundation area).
- **China Beach:** Move south/uphill until above El Camino Del Mar Road.
- **Ocean Beach:** Move uphill along major east-west roadways to 45th Street.
- **Fort Funston:** Move uphill to Skyline Boulevard.
- **Rancho Corral de Tierra:** Move uphill along the Ember Ridge and Spine trails.

## FLOOD ALERT AND RESPONSE PROCEDURES

For flood hazards, historic weather patterns and stream responses indicate there would be ample time to warn staff and visitors using the affected facilities at Muir Beach, Muir Woods, Stinson Beach, and Rancho Corral de Tierra, and have them evacuate the area.

The park's response to a flood event created by precipitation would involve a similar process as that outlined for a tsunami event. Park police dispatch would initiate flood alert and response procedures based on an Official Flood Advisory/Warning disseminated by the National Weather Service, or a notification from a county office of emergency management. Park staff would then assume an "alert status" and regularly monitor creek conditions and flows. A park liaison may also be designated to coordinate with county level agencies, should they activate an Emergency Operations Center and establish Incident Command.

Depending on the level of risk, Golden Gate NRA law enforcement rangers and other designated staff would move to pre-emptively evacuate affected areas well ahead of expected flooding, and then prevent further entry into those areas with signage and/or by posting law enforcement staff at strategic points. In the event that flooding occurs with little or no warning, visitors and NPS staff

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<sup>2</sup> Golden Gate NRA recently obtained tsunami hazard and evacuation signs for Stinson Beach, Muir Beach, Rodeo Beach, and Kirby Cove. These signs will be installed pending the sign installation approval process.

would be instructed to move to high ground and roadways above low-lying areas by the most expedient means available.

## **CLIMATE CHANGE**

Climate change is expected to create changes in rainfall patterns and intensity, including the frequency of extreme rainfall events that would change the inundation areas for a 100-year flood event. Increased storm intensity, including changes in storm wind patterns, is also expected to affect inundation associated with coastal flooding. Also, sea level rise is expected to continue as the result of climate change, which would compound the effects and reach of tsunamis. These changes will likely require ongoing monitoring of weather patterns, sea level, and creek levels in and around Golden Gate NRA in the future (NPS 2012).

## **FUTURE PLANNING EFFORTS**

The continued use of the aforementioned sites for the various facilities and services would necessitate the development (and future implementation) of a coordinated emergency response plan for Golden Gate NRA. The plan would include strategies for emergency response training for park personnel, interagency coordination procedures, proper storm and tsunami monitoring procedures, emergency communication methods, actions and responsibilities during evacuations of specific sites, and evacuation routes.

Golden Gate NRA will coordinate its future planning efforts with emergency management representatives from Marin County, San Francisco County, San Mateo County, Point Reyes National Seashore, and park partners. In recent years, great strides have been made toward developing collaborative relationships with emergency managers in adjacent jurisdictions. Future planning efforts will continue to approach emergency preparedness and response in a collaborative manner.

## SUMMARY

The National Park Service has determined that there is no practicable alternative to maintaining the use of the structures and landscapes at the nine aforementioned sites. This determination is primarily based on: (1) the notable costs and natural resource impacts that would be incurred by moving these facilities to new locations outside the floodplain and tsunami inundation zone, (2) a lack of suitable alternative locations, (3) the historic values associated with many of the structures, and (4) the recreational value of the beaches and their supporting facilities to the general public.

The primary flood and tsunami mitigation measure for the sites is the safe and timely evacuation of visitors and staff from affected areas. To this end, Golden Gate NRA will continue to monitor the NAWAS and CLETS systems for flood and tsunami information and will develop a coordinated evacuation plan for all facilities and visitor areas as resources allow. In addition, the facilities in these areas are day use only. Other mitigation measures include floodplain restoration activities described in the general management plan, the current system of outdoor warning sirens audible in coastal areas, participating in emergency scenario exercises with local jurisdictions, keeping irreplaceable records and items in structures that are not in flood-prone areas, and removing debris that collects on the upstream side of culverts.

For flood hazards associated with heavy precipitation, the National Park Service monitors the NAWAS and CLETS systems. Historic weather patterns indicate there would be ample time to warn staff and visitors using the affected facilities at Stinson Beach, Muir Woods and Beach, and Rancho Corral de Tierra to evacuate the area. Visitors and staff would generally be directed to move uphill and away from low-lying areas, and to then proceed out of the flood-affected site using major roadways.

For tsunami hazards, the National Park Service monitors the NAWAS and CLETS systems. The time available to warn and evacuate visitors and staff would depend on whether the tsunami was near-source generated or distant-source generated. The National Park Service would initiate alert and evacuation procedures for coastal park units based on the level of risk (potential size of tsunami and expected time of arrival). Visitors and staff would generally be directed to move east (uphill) to arterial roadways or terrain at least 50 feet above sea level.

## SOURCES

### California Emergency Management Agency

2009 *Tsunami Inundation Map for Emergency Planning*. San Mateo County: State of California.

2009 *Tsunami Inundation Map for Emergency Planning*. San Francisco County: State of California.

### California Emergency Management Agency

2009 *Tsunami Inundation Map for Emergency Planning*. Marin County: State of California.

### City and County of San Francisco

2008 *Emergency Response Plan- Tsunami Response Annex*. San Francisco: City and County of San Francisco.

### Department of Technology - City and County of San Francisco

2011 *Outdoor Public Warning System Location Map*. San Francisco, CA: City and County of San Francisco.

### Federal Emergency Management Agency (FEMA)

2011 *National Flood Hazard Layer*. Washington, D.C.

### Marin County Sheriff's Department

2007 *Tsunami Annex- Marin Operational Area, Emergency Operations Plan*. San Rafael, CA: Marin County.

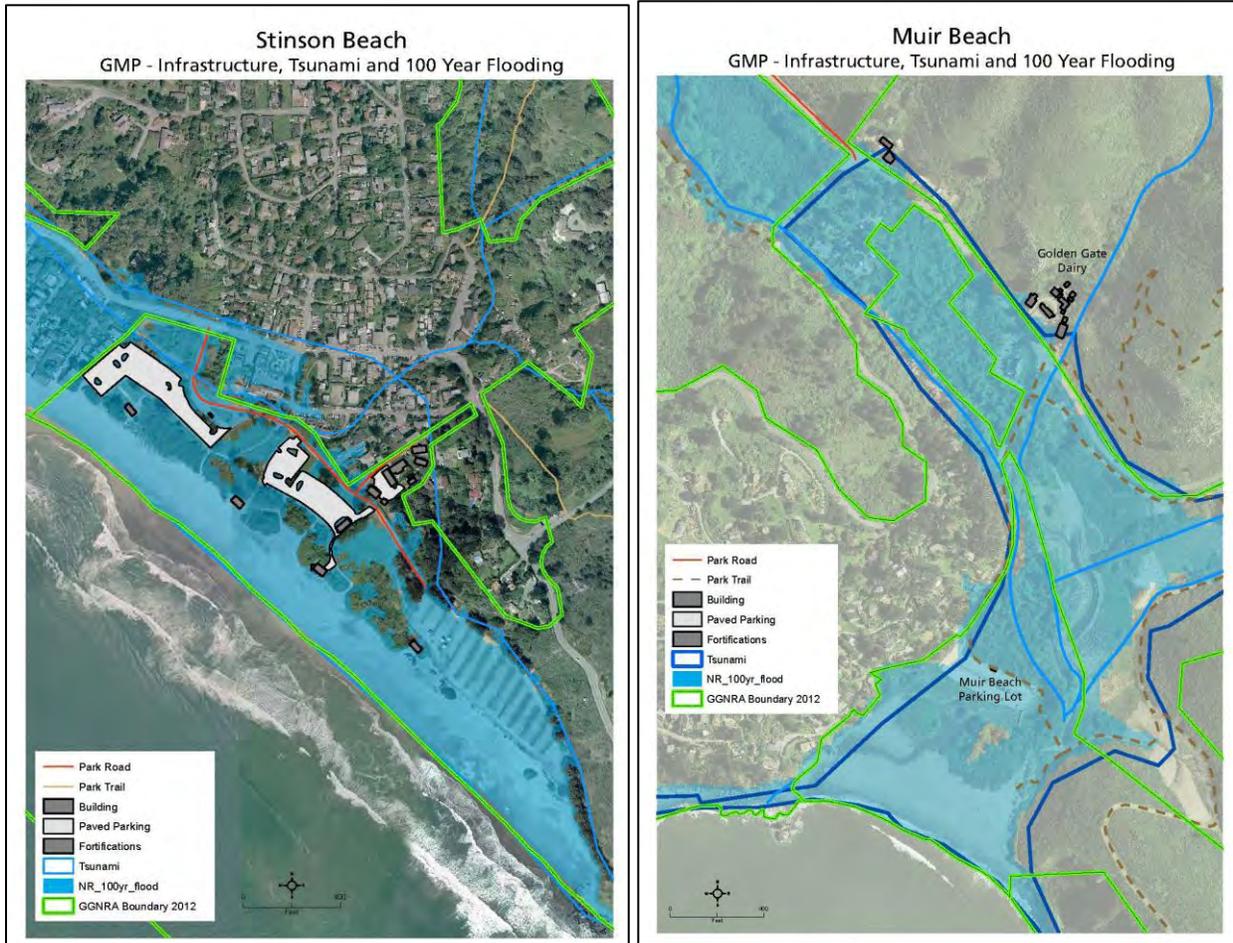
### National Park Service (NPS)

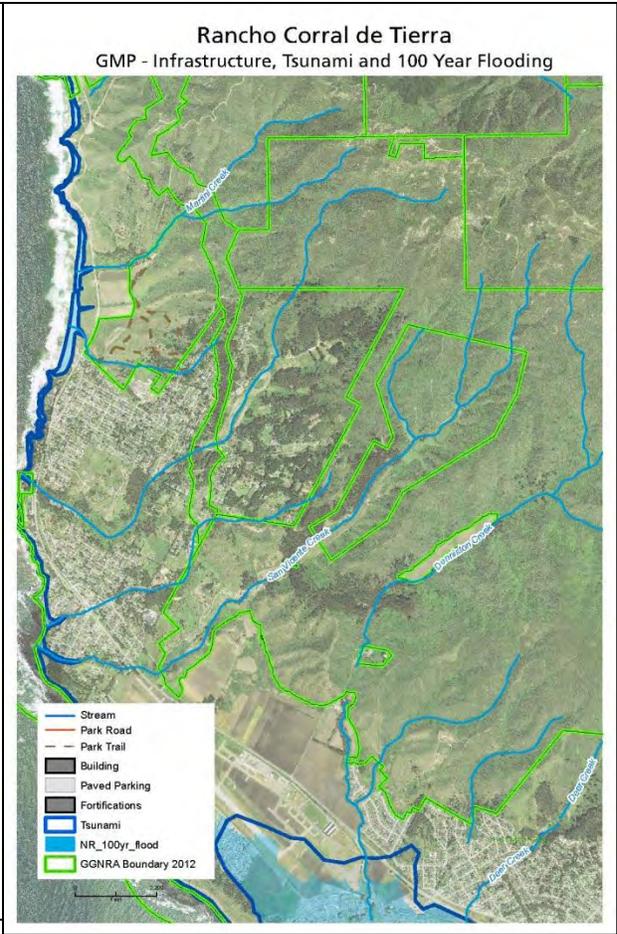
2012 *Climate Change Response Program. Climate Change Action Plan*. Fort Collins, CO.

### San Francisco Planning and Urban Research Association (SPUR)

2012 *Ocean Beach Master Plan*. San Francisco, CA.

**SUPPLEMENT — MAPPING OF TSUNAMI INUNDATION ZONE AND 100-YEAR FLOODPLAINS; ARRANGED FROM NORTH TO SOUTH**





**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 OFFICE  
REGARDING OPERATIONAL AND MAINTENANCE ACTIVITIES  
IN GOLDEN GATE NATIONAL RECREATION AREA**

**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,  
AND THE FEDERATED INDIANS OF GRATON RANCHERIA  
REGARDING  
OPERATIONAL AND MAINTENANCE ACTIVITIES IN  
GOLDEN GATE NATIONAL RECREATION AREA**

WHEREAS, Golden Gate National Recreation Area, a unit of the National Park Service (NPS), located in Marin, San Francisco, and San Mateo Counties in California, operates, manages, administers, maintains, preserves, and interprets the historic properties of the Park including Muir Woods National Monument and Fort Point National Historic Site (hereinafter collectively referred to as “the Park”) to leave them unimpaired for the enjoyment of future generations; and,

WHEREAS, pursuant to Public Law 100-526 (October 27, 1972), Congress established the Park to preserve for public use and enjoyment certain areas possessing outstanding natural, cultural, historic, scenic, and recreational values; and

WHEREAS, the Superintendent of the Park is the responsible agency official as defined in 36 CFR 800.2(a) for purposes of Section 106 compliance of the National Historic Preservation Act (NHPA), and for the implementation of this Programmatic Agreement (PA); and

WHEREAS, execution and implementation of this PA will supersede the Park’s 1992 *Programmatic Agreement Among the Western Region, National Park Service, USDI (NPS-WR), Golden Gate National Recreation Area, National Park Service, USDI (NPS-GOGA) the California State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) Regarding the Operation and Maintenance Activities in Golden Gate National Recreation Area*; and

WHEREAS, the portion of the Presidio of San Francisco including the Bay and Coastal Areas known as Area A is within the jurisdiction of the Park; and the inland portion of the Presidio of San Francisco known as Area B is within the jurisdiction of the Presidio Trust, and is not subject to this PA; and

WHEREAS, execution implementation of this PA will supersede the Park’s 1994 *Programmatic Agreement (Agreement) Among the Western Region, National Park Service, USDI (NPS-WR), Golden Gate National Recreation Area, National Park Service, USDI (NPS-GOGA) and the California State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) herein after The Parties to this Agreement, Regarding The General Management Plan Amendment/Environmental Impact Statement of July 1994 and Operation and Management of The Presidio of San Francisco, Golden Gate National Recreation Area*; and

WHEREAS, Section II.F. of *The Programmatic Agreement Among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act* (the NPS Servicewide PA, see Appendix A) of 2008 encourages development of supplementary programmatic agreements; and

WHEREAS, the operation, management, and administration of the Park involves undertakings that may affect historic properties (as defined in 36 CFR Part 800.16.(1)), which are therefore subject to review under applicable sections of the NHPA as amended (16 USC 470 et seq.), such as 106, 110(f), 111(a), and 112, and the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800); and

WHEREAS, the Park has consulted with the California State Historic Preservation Officer (SHPO) regarding development of this PA pursuant to 36 CFR Part 800; and

WHEREAS, the Advisory Council on Historic Preservation (ACHP) has chosen to participate in this consultation and development of this PA; and

WHEREAS, the purpose of this PA is to establish a Parkwide Program for compliance with Section 106 of the NHPA and set forth a streamlined process when agreed upon criteria are met and procedures are followed (the Program), and to supplement the existing NPS Servicewide PA; and

WHEREAS, the Park will be guided by planning and management documents listed in Appendix B; and

WHEREAS, the Park has a staff of specialists who meet the *Secretary of the Interior's Historic Preservation Professional Qualifications Standards* appropriate to the historic properties in the Park to carry out the Park's Program, and may call on other NPS qualified staff as needed; and

WHEREAS, the Park has determined that the implementation of this Program may affect properties within the Park that are listed in or eligible for listing in the National Register of Historic Places (NRHP) and properties to which Indian tribes may attach religious and cultural significance; and

WHEREAS, the ancestral territory of Federated Indians of Graton Rancheria (FIGR) includes park lands in Marin County, and FIGR has designated a Tribal Historic Preservation Officer (THPO) who will consult with the park under the terms of this Programmatic Agreement, and FIGR has agreed to be an invited signatory to this PA; and

WHEREAS, the Park has consulted with Ohlone groups seeking federal recognition, and with Ohlone individuals who participate in the stewardship of Ohlone heritage, and has invited Ohlone tribes and affiliated descendants to sign this Programmatic Agreement (PA) as concurring parties and has received no response; and

WHEREAS, the Park has invited the Presidio Trust, San Francisco Planning Department, San Mateo County Historical Association, San Mateo County Parks, California State Parks, and Golden Gate Bridge Highway and Transportation District to be concurring parties, and the Presidio Trust has accepted the invitation and will sign this PA as a concurring party; and

NOW, THEREFORE, the Park, ACHP, and SHPO agree that the PA shall be implemented in accordance with the following stipulations and processes in order to take into account the effects of the Park's undertakings on historic properties.

## I. CONSULTATION

### A. Public Comment

1. For undertakings that do not qualify for the streamlined review process as set forth in Section II of this PA and Section III of the NPS Servicewide PA, the Park will coordinate its Section 106 review with the National Environmental Policy Act (NEPA) process to meet its obligation for public input under 36 CFR 800. In order to do so, the Park will consult with interested parties and members of the public through regular public meetings, informational mailings, and use of the Planning, Environment and Public Comment (PEPC) website.
2. The Park Superintendent will consult with members of the public interested in the Park's cultural resources and in proposed NPS actions that might affect those resources, and provide them with the opportunities to learn about and comment on those resources and planned actions.
3. For undertakings that do not qualify for the streamlined review process, the Park will initiate consultation with consulting parties on undertakings at the beginning of a planning effort, and shall make clear any rules, processes, or schedules applicable to the consultation. The Park shall actively seek the views and comments of local governments and certified local governments when an undertaking has the potential to affect historic properties and to acknowledge and understand others' interests. Those seeking Federal assistance, licenses, permits, or other approvals are entitled to participate as a consulting party as defined in 36 CFR 800.2(c)(4) and will be consulted as applicable early in the planning process.

### B. Tribal Consultation

1. The Park collaborates with FIGR, a federally recognized Indian tribe composed of Coast Miwok and Southern Pomo with traditional association to their ancestral homelands in park lands in Marin County. The Park will consult with FIGR to develop and implement a Tribal Consultation Protocol as suggested in the NPS Servicewide PA (Section II.4), within six to twelve months from the execution date of this document. The Protocol will establish further procedures and timelines for consultation under 36 CFR 800.2(c)(2)(ii)(E). The Park will notify FIGR every other week regarding proposed undertakings in the park and allow them a two-week

opportunity to provide comments.

2. The Park works with Ohlone Indian groups seeking federal recognition, and with Ohlone Indian organizations and individuals who participate in the stewardship of Ohlone heritage. Park lands in San Francisco and San Mateo counties are part of the aboriginal homeland of the Ohlone. The Park will notify Ohlone every other week regarding proposed undertakings in the park and allow them a two-week opportunity to provide comments.
3. Park staff will continue to work with FIGR and the Ohlone in areas of cultural stewardship, traditional ecological knowledge, education, and revitalization of community and tradition outside of the Section 106 process. There is a separate Cooperative Agreement between Point Reyes National Seashore, the Park, and FIGR for this purpose.

#### C. Consultation with the Presidio Trust

1. The Park will notify the Presidio Trust in writing when reviewing undertakings located in Area A of the Presidio of San Francisco, and will allow the Presidio Trust a two-week opportunity to comment.

## II. STREAMLINED REVIEW PROCESS

### A. Criteria for Using the Streamlined Review Process

1. In accordance with Stipulation I.A.5 – 7 and I.B.1 – 2 of the NPS Servicewide PA, the Superintendent has designated a Cultural Resource Management (CRM) Team with expertise and meeting the qualifications to fulfill and implement the requirements of the NPS Servicewide PA.
2. If a property that was not formally listed or determined eligible for the National Register is found by the CRM Team to be eligible, the park will treat this property as historic for the purposes of this PA. If the CRM Team determines such a property is not eligible, the Park will either treat this property as historic for the purposes of this PA, or shall consult with the SHPO to reach a consensus determination of eligibility.
3. The CRM Team will implement the streamlined review process in Section III.B in the NPS Servicewide PA.
4. The CRM Team will review projects for compliance with the Secretary of the *Interior's Standards for the Treatment of Historic Properties* (36 CFR 68), and treatment recommendations cited in baseline cultural resources publications in Appendix A.
5. The Park will follow the Standard Review Process in 36 CFR 800.3-800.6 for undertakings that do not meet the streamlined review criteria, such as those projects

having an adverse effect, or which are not specific project types qualified for streamlined review as mentioned in Section II of this document or in the NPS Servicewide PA, section III.

6. An annual report of all undertakings reviewed using the Streamlined Review process will be prepared by the Park Section 106 Coordinator, and a hard copy will be transmitted to the SHPO. The report will include a list of the qualified staff members of the CRM Team.
7. Archeological Management Assessments
  - a. All projects involving ground disturbing activities in or adjacent to archeologically sensitive sites will have an Archeological Management Assessment (AMA) checklist completed. The Park will identify proposed undertakings involving ground disturbing or other activities during the planning process to allow an AMA, or checklist to be prepared and implemented.
  - b. An AMA is a report documenting information and actions taken to determine if significant archeological resources exist within the area of project effects of a specific park undertaking, and which develops recommendations that help avoid any adverse effect to those resources during project implementation. An AMA presents information that documents the park's completion of significant portions of the NHPA Section 106 process as promulgated at 36 CFR 800.4 (Identification of Historic Properties), 800.5 (Assessment of Adverse Effects), and resolution of effects if they are adverse (800.6). Typically an AMA will involve reporting on the following information and actions:
    - i. Establishment of the Area of Potential Effects (APE) and project related activities that could cause adverse effects on archeological properties;
    - ii. Establish sufficient historic context to determine the kinds of archeological properties that may exist in the APE based on already documented resources, existing historical studies, GIS sensitivity studies, or new historic research conducted specifically for the AMA;
    - iii. Identification of archeological resources documented or previous archeological surveys conducted within the project APE, by using the NPS Archeological Sites Management Information System (ASMIS), the California Historical Resource Information System (CHRIS), the GGNRA Archeological Sensitivity Model, or other relevant park studies or records;
    - iv. Conduct an archeological survey(s) within any APE which has not been previously or adequately surveyed, or for which surveys are necessary to reflect any changes in land conditions, i.e., fire, erosion, landslides, etc., and whose archeological context suggests the potential to identify significant properties;
    - v. Sufficient information and context on the identified archeological

- resources to determine their eligibility for listing on the National Register of Historic Places (NRHP), or their role as contributing features to already listed NRHP properties applying all four National Register criteria;
- vi. Consultation with Indian tribes and/or descendants as defined by Park affiliation studies and historical practice for all AMAs involving archeological properties as well as properties that may be of cultural or religious interest;
  - vii. Adequate stipulations to ensure that a project under Streamlined Review will avoid any adverse effect on the significant archeological resources within the APE.
- c. AMAs will be conducted by or under the direct supervision of an archeologist who meets the *Secretary of the Interior's Professional Qualification Standards for Archeology*;
  - d. AMAs will meet the standards established in 36 CFR 800.4-800.6 (identification, evaluation, effect determination/resolution); NPS Director's Order 28 (Cultural Resources), and the *Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation* including: Planning I-III, Identification I-III, Evaluation I-IV, Registration I-III, Archaeological Documentation I-IV;
  - e. Public access to AMA or other archeological reporting and documentation will remain confidential to the extent that they meet the definitions set forth at Section 304 of the NHPA, Section 9 of Archaeological Resources Protection Act (ARPA), and other relevant legislation;
  - f. Treatments identified in AMAs will follow 36 CFR 68, and give consideration to the ACHP Recommended Approach for Consultation on Recovery of Significant Information for Archaeological Sites.

#### B. Undertakings Eligible for Streamlined Review

In accordance with stipulations III.D of the NPS Servicewide PA, the list of undertakings eligible for streamlined review in stipulation III.C is amended to include:

- 1. Preservation Maintenance (cleaning, routine maintenance, cyclic maintenance, stabilization and building monitoring) consisting of:
  - a. Repair of roofing material from the period of significance or replacement in-kind if it is deteriorated beyond repair;
  - b. Chimney repair, including flue liner replacement and chimney capping;

- c. Grading of terrain adjacent to a building to achieve positive water run-off provided that previous cultural resource studies indicate that no historic properties would be adversely affected;
    - d. Maintenance, repair, rehabilitation, and restoration of historic vegetation, vistas, and small-scale features. Addition of non-historic landscape features must meet the *Secretary of the Interior's Standards for the Treatment of Historic Properties*;
  2. Rehabilitation of historic buildings, structures, and landscapes. Rehabilitations will conform with the *Secretary of Interior's Standards for the Treatment of Historic Properties* and will be informed by historic structures reports (HSRs) and cultural landscape reports (CLRs);
  3. Military Fortifications Preservation and Management, including the following activities:
    - a. Maintenance and preservation work limited to retaining, protecting, and/or replacing in-kind materials and features that are deteriorated beyond repair and that contribute to the National Register significance of the fortification, including its associated landscape and archeological properties;
    - b. Earthworks maintenance to prevent erosion and ensure preservation of an existing profile will be based on current and accepted practices as defined in *Seacoast Fortification Preservation Manual* (1999), and *NPS Guide to Sustainable Military Earthworks Management* (1998), both of which reference and are consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Guidelines for Treatment of Cultural Landscapes* ;
    - c. Removal of hazard trees as directed by a certified arborist or professional landscape architect with use of stump grinding, provided the grinding is limited to the diameter of the stump and a depth of no greater than 6 inches in order to avoid ground disturbance;
    - d. Repairing eroded or damaged sections of earthworks using imported soil to re-establish historic contours, following archeological review and documentation in appropriate NPS inventory and management databases;
    - e. Maintaining a healthy and sustainable vegetation cover for fortification landscapes based on recommendations made by historic landscape architects and research defined in cultural landscape reports;
  4. Removal of non-contributing buildings, structures, pavement, and additions as described in the Park's General Management Plan (2014), as it may be amended;

5. Construction of new compatibly designed restroom facilities that conform with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and in keeping with the recommendations in approved cultural landscape reports;
6. Removal of both natural and man-made surface debris following a major weather or geologic event such as a tsunami or an earthquake, provided an AMA has been completed prior to any ground disturbing activity;
7. Sustainable energy improvements made according to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings* (2013), and informed by HSRs, CLR, and archeological reviews;
8. Maintenance or replacement of non-historic utility lines, transmission lines, and fences on historic properties if performed in a manner that does not adversely affect above- or below-ground historic properties;
9. Limited repair or upgrade of above-ground infrastructure or wireless telecommunications facilities provided the undertaking is performed in accordance with the *Secretary of Interior's Standards for the Treatment of Historic Properties*;
10. Installation of new signs that meet the *Golden Gate National Recreation Area, Signage & Graphics Guide Guidelines, Hunt Design* (2009), referenced in Appendix B, and in areas previously surveyed with no archaeological sensitivity;
11. Projects to provide accessibility for buildings and landscapes if proposed in a sensitive way that protect historic properties, and that follow guidance from *NPS Preservation Brief 32, Making Historic Properties Accessible*; recommendations from CLR and HSR; and which meet the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, avoid adverse effects, and take Section 110(f) of the NHPA into account for National Historic Landmarks (NHL). Projects should be compliant with standards outlined in the *Architectural Barriers Act Accessibility Standards* (ABAAS), *Accessibility Guidelines for Outdoor Recreation Areas* (AGODA) published by the U.S. Access Board, and *Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines* (ADAABAAG), and avoid adverse effects;
12. Rehabilitation of HVAC systems including replacement of furnaces provided it is done in conformance with the *Secretary of Interior's Standards for the Treatment of Historic Properties*;
13. Undertakings, such as art exhibits, that affect a historic property, regardless of their temporary or reversible nature, must avoid adverse effects to character defining features and the design, materials, location, association, and workmanship of historic fabric. If there is no adverse effect to historic fabric, feeling and setting may be

altered, for a period not to exceed one year for these purposes. Subsequent art exhibits must not be placed in the same view shed until a period of time has elapsed equal in length to the previous installation.

### **III. NATIONAL HISTORIC LANDMARKS**

- A. The Park shall, to the maximum extent possible, undertake planning and actions necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking as required by Section 110(f) of the National Historic Preservation Act and 36 CFR § 800.10.
- B. Where the other criteria as listed in Stipulation III of the NPS Servicewide PA, and Stipulation II above are met, proposed undertakings that may affect a designated NHL may follow the Streamlined Review Process. Where preliminary planning activities indicate that a proposed undertaking has the potential to have an adverse effect on an NHL, prior to initiating a formal consultation process, the Superintendent will initiate an internal review process in accordance with NPS Management Policies to determine alternatives to avoid or minimize the adverse effects and to assess the possibility of impairment.

### **IV. INADVERTENT DISCOVERIES OR UNANTICIPATED EFFECTS**

- A. If historic properties are discovered or unanticipated effects on historic properties are found after the Park's approval of the undertaking and after construction has commenced, the Park shall implement any post review discovery plan developed pursuant to this PA. If such a plan is not in effect, the Park will stop construction activities in the area of the discovery, take reasonable efforts to avoid or minimize effects to historic properties, consult with SHPO, FIGR, and any Ohlone representatives that might attach religious and cultural significance to the affected properties within 48 hours of the discovery. As a result of the consultation, the Park will document any effects to such properties, and, in consultation with the SHPO, FIGR, and Ohlone, determine reasonable actions that can be taken to avoid, minimize or mitigate any adverse effects.
  - 1. The notification shall describe the Park's assessment of the NRHP eligibility of the property, describe the effects, and propose actions to resolve adverse effects. The SHPO and Indian tribe(s), or other parties that have been notified, shall respond within 2 business days of the notification. The agency official/superintendent shall take into account their recommendations regarding NRHP eligibility and the proposed actions, and then carry out appropriate actions. The agency official/superintendent shall provide the SHPO, and Indian tribes, or groups with a report of the actions within 30 days of completion.
  - 2. The Park, in consultation with the SHPO, may assume a newly discovered property to be eligible for the National Register for purposes of the current undertaking and shall specify the National Register criteria used to assume the property's eligibility.

## **V. EMERGENCY ACTIONS**

- A. Immediate rescue and salvage operations conducted to preserve life or property temporarily supersedes the provisions of Section 106 and this PA. Examples include earthquake, tsunami, and/or fire.
- B. In the event the Park Superintendent deems an action necessary as an essential and immediate response to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or another immediate threat to life or property, the Park shall:
  - 1. Notify, within 24 hours of declared emergency or as soon as conditions permit, the SHPO and any Indian tribe or group that may attach religious and cultural significance to historic properties likely to be affected prior to the undertaking and afford them an opportunity to comment within 24 hours of notifications. If the Park determines that circumstances do not permit 24 hours for comment, the agency official/superintendent shall notify the SHPO and the Indian tribe or group and invite comments within the time available. The Park shall take into account any comments received in reaching decisions on how to proceed with the emergency undertaking.
  - 2. These emergency procedures apply only to undertakings that will be implemented within 30 days after the disaster or emergency has been formally declared by the appropriate authority. The Park may request an extension of the period of applicability from the SHPO prior to the expiration of the 30 days.

## **VI. DISPUTE RESOLUTION**

- A. Should any party to this agreement object at any time to any actions proposed, or the manner in which the terms of this PA are implemented, the Park, SHPO, and ACHP shall consult with the objecting party(s) to resolve the objection. If the Park determines that such objection(s) cannot be resolved through this consultation, the Park will:
  - 1. Forward all documentation relevant to the dispute to the ACHP and the other parties of the dispute in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the ACHP shall review and advise the Park on the resolution of the objection within 30 days. Any comment provided by the ACHP, and all comments from the parties to the PA, will be taken into account by the Park in reaching a final decision regarding the dispute.
  - 2. If the ACHP does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, the Park may render a decision regarding the dispute. In reaching its decision, the Park will take into account all comments regarding the dispute from the parties to the PA.
  - 3. The Park's responsibility to carry out all other actions subject to the terms of this

PA that are not the subject of the dispute remain unchanged. The Park will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. The Park's decision will be final.

## **VII. TERMINATION**

- A. If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Section VIII, below. If within 30 days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.
- B. FIGR may, for matters related to tribal interests and issues provide a 30-day written notice to the signatories, that it is fully withdrawing from participation in the PA. Following such a withdrawal, the Park will review undertakings that may affect historic properties of religious and cultural significance to the Tribe in accordance with the standard four-step process at 36 CFR §§ 800.3 through 800.7 or an applicable alternative under 36 CFR § 800.14. Withdrawal by the Tribe does not terminate the PA.
- C. Once the PA is terminated, and prior to work continuing on an undertaking, the Park must either (a) execute a Memorandum of Agreement pursuant to 36 CFR § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. The Park shall notify the signatories as to the course of action it will pursue

## **VIII. AMENDMENTS**

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effected on the day the copy is signed by all the signatories and is filed with the ACHP.

Appendices may be revised with the written agreement of the signatories without a revision being made to the underlying PA. Any such change will be documented in the Park's annual report in accordance with stipulation II.A.6

## **IX. DURATION**

This agreement will terminate 20 years from the date of its execution. Twelve months prior to such time, the Park may consult with the other signatories to reconsider the terms of the agreement and revise or amend the document.

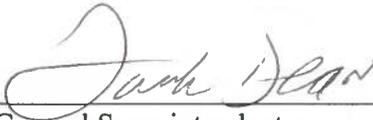
The NPS will convene a meeting of the signatories to this PA, including FIGR, within two (2) years of execution of this PA, and every two years thereafter, to review implementation of the terms of this PA.

**EXECUTION** of this Programmatic Agreement by the Park, the SHPO, and ACHP, and

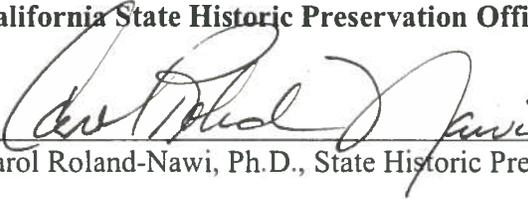
implementation of its terms evidence that the National Park Service has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

**SIGNATORIES:**

**National Park Service, Golden Gate National Recreation Area**

  
\_\_\_\_\_  
Frank Dean, General Superintendent 6/2/14  
Date

**California State Historic Preservation Officer**

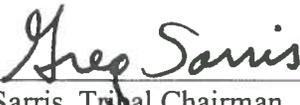
  
\_\_\_\_\_  
Carol Roland-Nawi, Ph.D., State Historic Preservation Officer 6-5-14  
Date

**Advisory Council on Historic Preservation**

  
\_\_\_\_\_  
John M. Fowler, Executive Director 2/10/14  
Date

**INVITED SIGNATORY:**

**Federated Indians of Graton Rancheria**

  
\_\_\_\_\_  
Greg Sarris, Tribal Chairman 7.2.14  
Date

**CONCURRING PARTY:**

**Presidio Trust**

  
\_\_\_\_\_  
Craig Middleton, Executive Director JUL 22 2014  
Date

Appendix A

PROGRAMMATIC AGREEMENT AMONG THE  
NATIONAL PARK SERVICE  
(U.S. DEPARTMENT OF THE INTERIOR),  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,  
AND THE NATIONAL CONFERENCE OF STATE HISTORIC  
PRESERVATION OFFICERS FOR COMPLIANCE WITH SECTION 106  
OF THE NATIONAL HISTORIC PRESERVATION ACT

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PROHIBITION ON THE ADVERTISEMENT AND OTHER  
MATTERS RELATING TO THE  
COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA  
THE PROHIBITION ON THE ADVERTISEMENT AND OTHER  
MATTERS RELATING TO THE COURT OF APPEALS FOR THE  
DISTRICT OF COLUMBIA

WHEREAS the Constitution of the United States provides that the judicial power shall be vested in one Supreme Court and in such inferior Courts as the Congress may from time to time ordain and establish; and

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**PROGRAMMATIC AGREEMENT AMONG THE  
NATIONAL PARK SERVICE  
(U.S. DEPARTMENT OF THE INTERIOR),  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,  
AND THE NATIONAL CONFERENCE OF STATE HISTORIC  
PRESERVATION OFFICERS FOR COMPLIANCE WITH SECTION 106  
OF THE NATIONAL HISTORIC PRESERVATION ACT**

**WHEREAS**, the National Park Service (NPS) plans for, operates, manages, and administers the National Park System (System) and is responsible for identifying, preserving, maintaining, and interpreting the historic properties of the System unimpaired for the enjoyment of future generations in accordance with the 1916 National Park Service Organic Act, the NPS Management Policies (2006), and applicable NPS Directors Orders; and

**WHEREAS**, the operation, management, and administration of the System entail undertakings that may affect historic properties (as defined in 36 CFR Part 800), which are therefore subject to review under Sections 106, 110(f) and 111(a) of the National Historic Preservation Act as amended (NHPA) (16 USC 470 *et seq.*) and the regulations of the Advisory Council on Historic Preservation (ACHP) (36 CFR Part 800); and

**WHEREAS**, the NPS has established management policies, director's orders, standards, and technical information designed for the identification, evaluation, documentation, and treatment of historic properties consistent with the spirit and intent of the NHPA; and

**WHEREAS**, the NPS has a qualified staff of cultural resource specialists to carry out programs for historic properties; and

**WHEREAS**, the purpose of this Programmatic Agreement (PA) is to establish a program for compliance with Section 106 of the NHPA and set forth a streamlined process when agreed upon criteria are met and procedures are followed; and

**WHEREAS**, signature and implementation of this PA does not invalidate park-, Region-, or project-specific memoranda of agreement (MOA) or programmatic agreements negotiated for Section 106 purposes prior to the effective date of this PA; and

**WHEREAS**, Federally recognized Indian Tribes are recognized by the U.S. government as sovereign nations in treaties and as unique political entities in a government-to-government relationship with the United States; and

**WHEREAS**, the NPS has conducted a series of "listening" meetings with Indian Tribes, has requested the input of a number of Native Advisors in the process of preparing this PA, and has held consultation meetings with Federally recognized Indian Tribes, Native Hawaiian organizations, and other parties on the content of the PA; and

**WHEREAS**, 36 CFR 800.2 (c)(2)(i)(A) and (B) provide for consultation with Indian Tribes on the same basis as the State Historic Preservation Officer (SHPO) when an undertaking will occur on or affect historic properties on tribal lands; and

**WHEREAS**, in accordance with 36 CFR 800.14(b)(2)(iii), a PA shall take effect on tribal lands only when the designated representative of the tribe is a signatory to the agreement; and

**WHEREAS**, for those parks located partly or wholly within tribal lands, the NPS has invited the applicable Tribal Historic Preservation Officer (THPO) or Indian Tribe to sign this PA as an Invited Signatory; and

**WHEREAS**, the NPS has consulted with the NCSHPO and the ACHP regarding ways to ensure that NPS operation, management, and administration of the Parks provide for management of the Parks' historic properties in accordance with the intent of NPS policies, director's orders and Sections 106, 110, 111, and 112 of the NHPA.

**NOW, THEREFORE**, the NPS, the NCSHPO, the ACHP, and the signatory tribes mutually agree that the NPS will carry out its Section 106 responsibilities with respect to operation, management, and administration of the Parks in accordance with the following stipulations.

#### **PURPOSE AND NEED**

NPS park operations, management, and administration require a large number of low-impact or repetitive activities on a daily basis that have the potential to affect properties listed in or determined eligible for the National Register of Historic Places and require consultation under Section 106. This PA provides an efficient process for compliance with Section 106 for daily NPS park operations, management, and administration activities. It establishes two processes for Section 106 review: a "streamlined" review process for designated undertakings that meet established criteria and a "standard" review process for all other undertakings. This PA also provides programmatic procedures and guidance for other activities related to the Section 106 compliance process, including identification of resources, consultation, and planning.

The NPS shall ensure the following measures are implemented.

#### **I. RESPONSIBILITIES, QUALIFICATIONS, AND TRAINING**

The following sections list the responsibilities and required qualifications for those individuals responsible for implementing this PA.

## **A. Responsibilities**

### **1. Director, National Park Service**

The Director has policy oversight responsibility for the agency's historic preservation program. The Director, through the Deputy Director for Operations, executes this PA for the NPS and provides policy level oversight within the NPS to ensure that stipulations of the PA are met.

### **2. Associate Director for Cultural Resources**

The Associate Director for Cultural Resources (ADCR) provides national leadership for policy implementation through establishing standards and guidance for managing cultural resources within the Parks. The ADCR works with the NPS regions and parks to ensure and support compliance with the stipulations of this PA and provides accountability to the signatories of this PA with regard to its implementation. The ADCR is responsible for working with Regions and Parks to develop and fund training needs related to Section 106 and the implementation of the PA. The ADCR in cooperation with the regions and parks, is responsible for issuing a guidance document for this agreement within 12 months of its execution. At the time of execution of this PA, the ADCR also holds the title of Federal Preservation Officer (FPO).

### **3. Regional Directors**

The Regional Director is the line manager for all Superintendents within his/her region. The Regional Director is responsible for policy oversight, strategic planning, and direction for parks and programs within the region and reports to the Director through the NPS Deputy Director for Operations. Review and support of Park and Superintendent implementation of this PA and training to achieve Section 106 compliance is the responsibility of the Regional Director.

### **4. Regional Section 106 Coordinators**

The Regional Section 106 Coordinators work with parks and other NPS offices to provide support for Section 106 compliance and implementation of this PA. The Regional Section 106 Coordinators provide guidance materials and technical assistance for implementing the PA and assist the parks to meet the training, reporting, and consultation requirements of the PA.

### **5. Superintendents**

Superintendents are the responsible agency officials as defined in 36 CFR 800.2(a) for purposes of Section 106 compliance and the implementation of this PA.

Each Superintendent shall do the following within his/her park:

- a. Designate a Park Section 106 Coordinator and a Cultural Resource Management (CRM) Team meeting the necessary qualifications;
- b. Develop and maintain relationships with Federally recognized Indian Tribal governments and Native Hawaiian organizations (if applicable);
- c. Develop and maintain relationships with SHPOs/THPOs;
- d. Ensure early coordination among the Section 106 Coordinator, the CRM Team, and other park and regional staff, concessioners, park partners, neighboring communities, groups affiliated with park resources, and others in the planning of projects and activities that may affect historic properties;
- e. Ensure that Section 106 consultation with the SHPO/THPO and other consulting parties is initiated early in the planning stages of any given undertaking, when the widest feasible range of alternatives is available for consideration;
- f. Ensure that the Park Section 106 Coordinator, CRM Team Members and the park cultural resources staff receives the NHPA training needed to carry out their responsibilities. Provide opportunities for other involved staff to receive NHPA training as funding and opportunities permit.

**6. Park Section 106 Coordinator**

The Park Section 106 coordinator provides day-to-day staff support for Section 106 activities and serves as liaison among park personnel, the NPS Regional Office, NPS Centers, and others involved in undertakings. The coordinator makes recommendations to the Superintendent regarding the appropriate course of action under this PA, including whether a project constitutes a Section 106 undertaking.

**7. Cultural Resource Management (CRM) Team**

The CRM Team shall provide expertise and technical advice to the Superintendent and the Park Section 106 Coordinator for purposes of Section 106 compliance and implementation of this PA.

**B. Qualifications**

**1. Park Section 106 Coordinator**

The Superintendent shall designate at least one (1) person to act as the park's Section 106 Coordinator, whose Section 106 responsibilities are specified, as appropriate. The designee may be chosen from the park staff, other NPS parks, NPS archeological and preservation centers, and the NPS Regional Office. The Park Section 106 Coordinator shall have an appropriate combination of professional training and/or experience to effectively carry out the responsibilities of the position.

## 2. Cultural Resource Management (CRM) Team

The Superintendent shall designate a CRM Team with expertise to fulfill and implement the requirements of this PA, whose Section 106 responsibilities are specified, as appropriate.

- a. Subject matter experts chosen must be appropriate to the resource types found in the park. Therefore, the number of individuals who comprise the CRM Team is not static and will be appropriate to include all necessary disciplines. Multi-disciplinary reviews of proposed undertakings are recommended.
- b. CRM Team members may be on the park staff or in other parks, or from NPS Regional Offices, NPS Centers, Federally recognized Indian Tribes, Native Hawaiian organizations, or elsewhere in the public or private sector.
- c. CRM Team members who are federal employees shall meet the qualifications for the applicable discipline as defined in Appendix E to NPS-28: Cultural Resource Management Guideline. CRM Team members who are representing Federally recognized Indian Tribes may be traditional cultural authorities, elders, and others experienced in the preservation of tribal culture. All other CRM team members, who are not federal employees or representing a Federally recognized Indian Tribe, must meet the Professional Qualification Standards in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

### C. Training

Periodic training on Section 106 compliance issues and the provisions of this PA is needed to maintain an understanding of the requirements of each. Such training may be accessed through the NPS, the ACHP, SHPOs/THPOs, Indian Tribes, Native Hawaiian organizations, other Federal or state agencies or private industry. Training may be in a classroom setting, electronic media, meetings, or other formats that allow for the conveyance of information. The NPS Washington Office, in consultation with the NPS parks, regions, and training centers, will work with the ACHP and NCSHPO to establish options for training in accordance with this PA, within 12 months from the time of execution of this PA.

1. All Superintendents and Section 106 coordinators will be notified of the opportunity to receive training on the provisions of this programmatic agreement once it has been made available by the NPS Washington Office. The NPS ADCR will work with the Regional 106 coordinators to accomplish this training throughout the Regions and parks within 12 months of its availability.
2. Superintendents will report on Section 106 training received by Superintendents and park staff as part of the biennial report (Section VIII.B of this agreement).

## II. CONSULTATION

### A. Consultation with Federally Recognized Indian Tribes and, THPOs, and Native Hawaiian Organizations

Government-to-government consultation with Federally recognized Indian Tribes and consultation with Native Hawaiian organizations shall occur at the Superintendent level and be initiated during planning and prior to undertaking an activity, program or project that may affect historic properties of significance to Federally recognized Indian tribes or Native Hawaiian organizations. Maintaining an on-going consultative relationship with THPOs and/or staff of Federally recognized Indian Tribes and Native Hawaiian organizations is essential.

#### 1. Consultation on Undertakings off Tribal Lands

Superintendents shall identify, compile a list of, and consult with Federally recognized Indian Tribes, THPOs and Native Hawaiians that are known to have aboriginal lands within the park boundaries, assert an interest in historic properties within the park boundaries, or have lands or interest in lands adjacent to the park.

- a. Such consultation will be in accordance with 36 CFR 800.2(c)(2)(ii), NPS Director's Order 75A: Public Engagement and Public Involvement, and with Sections III and IV of this PA.
- b. Each Superintendent, with the assistance of park and Regional Office ethnographers, will be responsible for identifying aboriginal lands within the park boundary, working cooperatively with the appropriate Federally recognized Indian Tribes and Native Hawaiian organizations.
- c. Superintendents, in consultation with the Park Section 106 Coordinator and the CRM Team, shall establish a process and develop consultation agreements, where appropriate, that provide for early coordination between the park and Federally recognized Indian tribes, THPOs, and/or Native Hawaiian organizations in identification and evaluation of historic properties and the planning of projects and activities that may affect historic properties.
- d. Identification and evaluation of historic properties on aboriginal lands must be based upon consultation with the appropriate traditionally associated communities.

#### 2. Consultation on Undertakings on Tribal Lands

For those undertakings that either occur on tribal lands or will otherwise have the potential to affect historic properties on tribal lands, including cumulative impacts from collectively significant actions taking place over a period of time, the Superintendent shall consult with that tribe on the same basis as he or she consults with the SHPO.

- a. Where the Tribe has assumed the SHPO's responsibility for Section 106 pursuant to Section 101(d)(2) of the NHPA, the Superintendent shall consult with the THPO in lieu of the SHPO, except as provided for in Section 101(d)(2)(D)(iii).
- b. Where the Tribe has not assumed the SHPO's responsibility for Section 106, the Superintendent shall consult with the Tribe's designated representatives in addition to and on the same basis as the SHPO. The Tribe shall have the same rights of consultation and concurrence as the SHPO.

3. **Applicability of this PA on Tribal Lands**

When a park is located partly or wholly within the boundaries of tribal lands, and the tribe has not signed this PA as an Invited Signatory, any undertaking that may occur on those tribal lands shall require consultation with the Tribe and/or THPO in accordance with 36 CFR Part 800, and the provisions of this PA are not applicable.

A tribe may sign this PA by written notification to the Director of such intent, signed by the THPO, Indian tribe, or a designated representative of the tribe. Once such a written and signed notification is received by the Director, the provisions of this PA will be applicable to undertakings occurring on those lands where a park is located partly or wholly within the boundaries of that particular tribe's tribal lands.

4. **Development of Agreements to Facilitate Government-to-Government Consultation with Federally recognized Indian Tribes and Consultation with Native Hawaiian Organizations**

Development of consultation protocols, memoranda of agreement and programmatic agreements is encouraged. Such agreements may be negotiated between Superintendents and Federally recognized Indian Tribes, THPOs, or Native Hawaiian organizations and may be independent of or supplement this PA. For example, such agreements may be specific to a project, plan, or park activity, or may set forth specific consultation protocols between the park and a specific tribe or group of Native peoples. Superintendents will provide an informational copy of all agreements to the Regional Section 106 Coordinator and to the ACHP and appropriate SHPO/THPO in accordance with 36 CFR 800.2(c)(2)(ii)(E).

**B. Consultation with SHPOs**

Consultation with SHPOs on projects reviewed in accordance with the Standard Review Process will occur in accordance with the procedures set forth in Section IV of this PA. Consultation with SHPOs on implementation of this PA will occur biennially in accordance with Section VIII of this PA.

**C. Consultation with Local Governments and Applicants for Federal Assistance, Licenses, Permits, and Other Approvals**

Where appropriate, the Superintendent shall actively seek the views and comments of local governments and certified local governments. Those seeking Federal assistance, licenses, permits, or other approvals are entitled to participate as a consulting party as defined in 36 CFR 800.2(c)(4) and will be consulted, as applicable.

**D. Consultation with the Public**

Superintendents will consult with interested members of the public.

**E. General Consultation Provisions**

1. Section 110 Inventory of Historic Properties

The parks implement a program to identify, evaluate, and, when appropriate, nominate historic properties to the National Register of Historic Places in accordance with Section 110(a)(2)(d) of the NHPA. Research and testing of all types of historic properties for purposes of identification and evaluation must be limited to the minimum necessary to obtain the required inventory and evaluative information. Early coordination on the identification and evaluation of historic properties should be undertaken with Federally recognized Indian Tribes or Native Hawaiian organizations, as appropriate, utilizing tribal knowledge and expertise wherever applicable. Knowledge and data from appropriate sources of expertise should be utilized, including SHPOs, local governments, Indian Tribes, Pacific Islanders, and national and local professional and scientific organizations. Inventory records should be periodically reviewed and updated, as necessary, to ensure data on historic properties, including condition information, is current, and any previous evaluations of significance remain accurate.

2. Information Sharing: Historic Property Inventories

Parks, NPS Regional Offices, NPS Centers, and SHPOs will share information with each other regarding inventories of historic properties and historic contexts developed, as well as other reports and research results related to historic properties in the parks, whenever such studies become available. In addition, parks, NPS Regional Offices, and NPS Centers will make such information available to interested Federally recognized Indian Tribes, THPOs, and Native Hawaiian organizations. Federally recognized Indian Tribes who are signatories to this PA will, likewise, make such information available to NPS parks and Regional Offices, as appropriate. Information will be shared with the understanding that sensitive information will be withheld by the recipient of the information from public disclosure pursuant to Section 304 of NHPA and other applicable laws. Procedures for information sharing and format for information (i.e. electronic, hard copy, etc.) should be agreed upon between the parties.

3. Notification of Park Section 106 Coordinator

The National Park Service will provide contact information on Section 106 coordinators to Indian Tribes, SHPOs/THPOs, and Native Hawaiian organizations for each park through the Regional Office from the Regional 106 Coordinator within six months of this PA and updated biennially.

4. Review and comment on guidance and training documents

The ADCR will consult with the ACHP and NCSHPO in the development of training materials and guidance for this PA.

**F. Development of Agreements to Facilitate Consultation**

Development of consultation protocols, memoranda of agreement, and programmatic agreements is encouraged. Such agreements may be negotiated between Superintendents and organizations or governments and may be independent of or supplement this PA. For example, such agreements may be specific to a project, plan, or park activity, or may set forth specific consultation protocols between the park and a specific group, state, or local government. Superintendents will provide an informational copy of all agreements to the Regional Section 106 Coordinator and to the ACHP and appropriate SHPO/THPO in accordance with 36 CFR 800.2(c)(2)(ii)(E).

**III. STREAMLINED REVIEW PROCESS**

Where the Park Section 106 Coordinator determines the following criteria are met for a proposed undertaking, no further consultation is required unless otherwise specifically requested by the SHPO/THPO, Federally recognized Indian Tribe(s) or Native Hawaiian organization(s), or the ACHP.

**A. Criteria for Using the Streamlined Review Process**

All of the following criteria must be met in order to use the Streamlined Review Process:

1. The proposed undertaking must be an activity eligible for streamlined review, listed in Section III.C of this PA. These undertakings shall be known as "streamlined activities" for purposes of reference and replace the term "nationwide programmatic exclusions" set forth in the 1995 Programmatic Agreement between the NPS, the ACHP, and the NCSHPO; and
2. Identification and evaluation of all types of historic properties within the project area of potential effect (APE) must have been previously undertaken, sufficient to assess effects on those resources (with the exception of V.C (16)). Identification and evaluation of historic properties of religious and cultural significance to Indian tribes and Native Hawaiian organizations must be based upon consultation

with those entities. All properties within the APE must have previously been evaluated for eligibility to the National Register of Historic Places and the SHPO/THPO must have concurred with the eligibility determination. Inventory records should be periodically reviewed and updated, as necessary, to ensure data on historic properties, including condition information, is current, and any previous evaluations of significance remain accurate; and

3. The Section 106 Coordinator, in consultation with appropriate members of the CRM Team must have reviewed the project and certified that the effects of the proposed undertaking on historic properties on or eligible for the National Register will ***not be adverse*** based on criteria in 36 CFR 800.5, including consideration of direct, indirect, and cumulative effects. The Effect Finding must be "No Historic Properties Affected" or "No Adverse Effect".

#### **B. Streamlined Review Process**

1. *Evaluate Whether the Proposed Undertaking is Eligible for Streamlined Review:* The Park Section 106 Coordinator, in consultation with appropriate members of the CRM Team, determines whether the proposed undertaking is an activity listed as an undertaking eligible for streamlined review in Section III.C of this PA. If not, compliance for the undertaking must be accomplished through the Standard Review Process, outlined in Section IV of this PA.
2. *Identify the Undertaking's Area of Potential Effect (APE):* The Park Section 106 Coordinator, in consultation with members of the CRM Team with expertise in the appropriate discipline(s), determines the project's APE, taking into account direct, indirect, and cumulative effects.
3. *Identify Historic Properties within APE:* The Park Section 106 Coordinator, in consultation with members of the CRM Team with expertise in the appropriate discipline(s), identifies the location, number, and significance of historic properties within the APE. If properties are located within the APE that have not yet been documented or evaluated for eligibility for the National Register of Historic Places, or if the SHPO/THPO has not yet concurred with the eligibility determination, compliance for the undertaking must be accomplished through the Standard Review Process, outlined in Section IV of this PA.
4. *Evaluate Effect of Undertaking on Historic Properties in APE:* The Park Section 106 Coordinator, in consultation with members of the CRM Team with expertise in the appropriate discipline(s), evaluates the effect of the proposed undertaking and cumulative effects on historic properties, applying the Criteria of Adverse Effect set forth in 36 CFR 800.5(a)(1)
5. *Document Streamlined Review Process:* If, after following steps one through four (1-4) listed above, the Park Section 106 Coordinator determines no historic properties are within the APE, or the proposed undertaking would result in a

determination of “no historic properties affected” or “no adverse effect”, no further consultation is required. The Park Section 106 Coordinator shall document the determination as follows:

- a. The Streamlined Review process will be documented using the NPS “Assessment of Actions Having an Effect on Cultural Resources” form, or another appropriate format. Parks are encouraged to use Servicewide automated project planning and tracking systems, such as the NPS Planning, Environment and Public Comment (PEPC) system, to track and document Section 106 compliance activities.
- b. Documentation will include the comments of each member of the CRM Team involved in the review process and the signature of the Superintendent. Electronic signatures are acceptable.
- c. Documentation will be permanently retained by the Park Section 106 Coordinator for review by consulting parties and to facilitate the preparation of the Annual Report.
- d. Annual Report: An annual report of all undertakings reviewed using the Streamlined Review process will be prepared by the Park Section 106 Coordinator, using existing and readily available data sources and reporting systems such as the NPS Planning, Environment and Public Comment (PEPC) system, for transmittal to the SHPO/THPO.

### **C. Undertakings Eligible for Streamlined Review**

1. **Preservation Maintenance and Repair of Historic Properties:** The Streamlined Review Process is intended to be used for:
  - Mitigation of wear and deterioration of a historic property to protect its condition without altering its historic character;
  - Repairing when its condition warrants with the least degree of intervention including limited replacement in-kind;
  - Replacing an entire feature in-kind when the level of deterioration or damage of materials precludes repair; and
  - Stabilization to protect damaged materials or features from additional damage.

Use of the Streamlined Review Process is limited to actions for retaining and preserving, protecting and maintaining, and repairing and replacing in-kind, as necessary, materials and features, consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards) and the accompanying guidelines.

Emergency stabilization, including limited replacement of irreparably damaged features or materials and temporary measures that prevent further loss of historic

material or that correct unsafe conditions until permanent repairs can be accomplished, may use the Streamlined Review Process. For archeological sites and cultural landscapes, the Streamlined Review Process may also be used for work to moderate, prevent, or arrest erosion.

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

The Streamlined Review Process may be used for routine repairs necessary to continue use of a historic property, but it is not intended to apply to situations where there is a change in use or where a series of individual projects cumulatively results in the complete rehabilitation or restoration of a historic property. If an approved treatment plan exists for a given historic property (such as a historic structure report, cultural landscape report, or preservation maintenance plan), the proposed undertaking needs to be in accordance with that plan. This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Removal of non-historic debris from an abandoned building.
- b. Cleaning and stabilizing of historic structures, features, fences, stone walls, plaques, and cannons using treatment methods that do not alter or cause damage to historic materials.
- c. Repainting in the same color as existing, or in similar colors or historic colors based upon an approved historic structure report, cultural landscape report, or a historic paint color analysis.
- d. Removal of non-historic, exotic species according to Integrated Pest Management principles when the species threatens cultural landscapes, archeological sites, or historic or prehistoric structures.
- e. Energy improvements limited to insulation in the attic or basement, and installation of weather stripping and caulking.
- f. In-kind repair and replacement of deteriorated pavement, including, but not limited to, asphalt, concrete, masonry unit pavers, brick, and stone on historic roads, paths, trails, parking areas, pullouts, etc.
- g. Repair or limited in-kind replacement of rotting floorboards, roof material, or siding. Limited in-kind replacement refers to the replacement of only those elements of the feature that are too deteriorated to enable repair, consistent with the Standards.
- h. In-kind replacement of existing gutters, broken or missing glass panes, retaining walls, and fences.

2. Rehabilitation and/or Minor Relocation of Existing Trails, Walks, Paths, and Sidewalks: The Streamlined Review Process may be used for undertakings proposed on existing non-historic trails, walks, paths, and/or sidewalks that are

located within previously disturbed areas and do not exceed the depth of the previous disturbance. The Streamlined Review Process may also be used for undertakings proposed on existing historic trails, walks, paths, and/or sidewalks, provided that the proposed undertaking is conducted in accordance with an approved treatment plan (such as a historic structure report, cultural landscape report, or preservation maintenance plan).

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. In-kind regrading, graveling, repaving, or other maintenance treatments of all existing trails, walks and paths within existing disturbed alignments.
- b. Minor realignment of trails, walks, and paths where the ground is previously disturbed as determined by a qualified archeologist.
- c. Changing the material or color of existing surfaces using materials that are recommended in an approved treatment plan or in keeping with the cultural landscape.
- d. Construction of water bars following the recommendations of an approved treatment plan or in keeping with the cultural landscape.

3. Repair/Resurfacing/Removal of Existing, Roads, Trails, and Parking Areas:

The Streamlined Review Process may be used as follows:

- a. Existing roads, trails, parking areas, and associated features that have been determined not eligible for the National Register in consultation with the SHPO/THPO, may be repaired or resurfaced in-kind or in similar materials as long as the extent of the project, including staging areas, is contained within the existing surfaced areas. The repair or resurfacing cannot exceed the area of the existing road surface and cannot exceed the depth of existing disturbance.
- b. Existing roads, trails, parking areas, and associated features, that have been determined eligible for the National Register in consultation with the SHPO/THPO, may be repaired or resurfaced in-kind. The project, including staging areas, cannot exceed the area of the existing surface and cannot exceed the depth of existing disturbance.
- c. Existing surfaced areas may be expanded or new surfaces constructed if the extent of new surfacing can be demonstrated to occur on land that has been disturbed by prior excavation or construction and has been shown not to contain buried historic properties. New or expanded surface may not be

an addition to, or continuation of, existing surfaces that are listed in or eligible for the National Register and all project activities, including staging areas, must be located in non-historic areas to be eligible for streamlined review.

- d. Existing surfaced areas may be removed if the surfaced area is not a historic property, it is not located within a historic property and all project activities, including staging areas, will occur on land that has been disturbed by prior excavation or construction and has been shown not to contain buried historic properties.

4. **Health and Safety Activities:** The Streamlined Review Process may be used for health and safety activities that do not require the removal of original historic elements or alteration of the visual character of the property or area.

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Sampling/testing historic fabric to determine hazardous content, e.g. lead paint, asbestos, radon.
- b. Limited activities to mitigate health and safety problems that can be handled without removal of historic fabric, surface treatments, or features that are character-defining elements, or features within previously disturbed areas or areas inventoried and found not to contain historic properties.
- c. Testing of soil and removal of soil adjacent to buried tanks, provided the project does not exceed the area of existing disturbance and does not exceed the depth of existing disturbance, as determined by a qualified archeologist.
- d. Removal of oil or septic tanks within previously disturbed areas or areas inventoried and found not to contain historic properties.
- e. Removal of HAZMAT materials within previously disturbed areas or areas inventoried and found not to contain historic properties.
- f. Safety activities related to black powder regulations.
- g. Replacement of septic tanks and systems in previously disturbed areas, or areas inventoried and found not to contain historic properties.
- h. Common pesticide treatments.
- i. Removal of both natural and anthropogenic surface debris following volcanic activity, tropical storms, hurricanes, tornados, or similar major weather events, provided removal methods do not include ground disturbance or otherwise cause damage to historic properties.

5. **Routine Grounds Maintenance:** The Streamlined Review Process may be used for routine grounds maintenance activities. If an approved treatment plan exists for a given historic property (such as a historic structure report, cultural landscape report, or preservation maintenance plan), the proposed undertaking needs to be in accordance with that plan.

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Grass replanting in same locations with approved species.
  - b. Woodland and woodlot management (including tree trimming, hazard tree removal, thinning, routine removal of exotic species that are not a significant component of a cultural landscape, stump grinding).
  - c. Maintaining existing vegetation on earthworks, trimming trees adjacent to roadways and other historic roads and trails.
  - d. Routine maintenance of gardens and vegetation within cultural landscapes with no changes in layout or design.
  - e. Routine grass maintenance of cemeteries and tombstones with no tools that will damage the surfaces of stones (i.e. weed whips).
  - f. Trimming of major specimen trees needed for tree health or to address critical health/safety conditions.
  - g. Routine roadside and trail maintenance and cleanup with no ground disturbance.
  - h. Planting of non-invasive plant species in non-historic areas.
  - i. Removal of dead and downed vegetation using equipment and methods that do not introduce ground disturbance.
  - j. Replacement of dead, downed, overgrown, or hazard trees, shrubs, or other vegetation with specimens of the same species.
  - k. Replacement of invasive or exotic landscape plantings with similar non-invasive plants.
  - l. Routine lawn mowing, leaf removal, watering, and fertilizing.
  - m. Routine orchard maintenance and pruning.
6. **Battlefield Preservation and Management:** The Streamlined Review Process *may be used only if* the park has approved planning documents (General Management Plan, cultural landscape report, treatment plan) that specify preservation and management protocols for the subject battlefield.

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

Consistent with that plan(s), activities include:

- a. Maintenance and preservation work limited to retaining, protecting, repairing, and replacing in-kind materials and features that contribute to the National Register significance of the battlefield landscape.
- b. Earthworks maintenance to prevent erosion and ensure preservation of existing profile, based on current and accepted practices identified in "Sustainable Military Earthworks Management" found on the NPS Cultural Landscape Currents website.
- c. Removal of hazard trees with no ground disturbance and with use of stump grinding provided the grinding is limited to the diameter of the stump and a depth of no greater than 6 inches.
- d. Repairing eroded or damaged sections of earthworks in-kind following archeological documentation and recordation in appropriate NPS inventory and management databases resulting in complete, accurate, and reliable records for those properties.
- e. Maintaining a healthy and sustainable vegetative cover.

7. Hazardous Fuel and Fire Management: The Streamlined Review Process *may be used only if* the park has an approved fire management plan or forest management plan.

If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

Following completion of activities under this section, post-burn inspection and monitoring should be conducted by a qualified archeologist to ensure no archeological sites were impacted or previously unknown sites revealed.

Consistent with the approved fire management plan or forest management plan, this streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Removal of dead and downed vegetation, outside of historic districts, cultural landscapes, and archeological sites, using equipment and methods that do not introduce ground disturbance beyond documented natural or historic disturbance.

- b. Removal of dead and downed vegetation, as well as trees and brush located within historic properties, if the vegetation does not contribute to the significance of the historic property and equipment and methods are used that do not introduce ground disturbance beyond documented natural or historic disturbance.
  - c. Forest management practices, including thinning of tree stands, outside of historic districts, cultural landscapes, and archeological sites, using equipment and methods that do not introduce ground disturbance beyond documented natural or historic disturbance.
  - d. Restoration of existing fire line disturbances, such as hand lines, bulldozer lines, safety areas, helispots, and other operational areas.
  - e. Slope stabilization, to include reseeding with native seeds, replanting with native plants and/or grasses, placement of straw bales, wattles, and felling of dead trees when the root ball is left intact and in situ.
8. Installation of Environmental Monitoring Units: The Streamlined Review Process may be used for the placement of small-scale, temporary or permanent monitoring units, such as weather stations, termite bait stations, water quality, air quality, or wildlife stations, in previously disturbed areas, as determined by a qualified archeologist, or areas inventoried and found not to contain historic properties. Borings must be limited to pipes less than 2 inches in diameter and surface samples to less than 12 inches in size and minimal in number.
9. Maintenance or Replacement of Non-Historic Utility Lines, Transmission Lines, and Fences: If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Maintenance or replacement of buried linear infrastructure in previously disturbed areas. The area of previous disturbance must be documented by a qualified archeologist and must coincide with the route of the infrastructure in its entirety.
- b. Replacement of non-historic materials, provided the undertaking will not impact adjacent or nearby historic properties and is not located in a historic property, or visible from an above-ground historic property.
- c. Maintenance or replacement of infrastructure, such as old water distribution systems, that has been determined to be not eligible for the National Register, in consultation with the SHPO/THPO.
- d. Maintenance of above-ground infrastructure.

- e. Replacement of above-ground infrastructure provided the undertaking is not located in a historic property or visible from an above-ground historic property.
- f. Enhancement of a wireless telecommunications facility, including the updating of mechanical equipment, provided the activities do not involve excavation nor any increase to the size of the existing facility.

10. **Erection of Signs, Wayside Exhibits, and Memorial Plaques:** If an approved treatment plan exists for a given historic property (such as a historic structure report, cultural landscape report, or preservation maintenance plan), the proposed undertaking needs to be in accordance with that plan. If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.

This streamlined activity includes the following undertakings, as well as others that are comparable in scope, scale, and impact:

- a. Replacement of existing signage in the same location with similar style, scale and materials.
- b. New signs that meet NPS standards, e.g. at entrance to the park or related to the park's interpretive mission, provided the sign is not physically attached to a historic building, structure, or object (including trees) and the sign is to be located in previously disturbed areas or areas inventoried and found not to contain historic properties.
- c. Replacement of interpretive messages on existing signs, wayside exhibits, or memorial plaques.
- d. Small developments such as paved pads, benches, and other features for universal access to signs, wayside exhibits, and memorial plaques in previously disturbed areas or areas inventoried and found not to contain historic properties.
- e. Temporary signage for closures, repairs, detours, safety, hazards, etc. in previously disturbed areas or areas inventoried and found not to contain historic properties.
- f. Memorial plaques placed within established zones that allow for such placement.

11. **Culvert Replacement:** The Streamlined Review Process may be used when culvert replacement will occur within existing cut and fill profiles, and:

- a. The existing culvert and/or associated road, rail bed, or cultural landscape has been determined not eligible for the National Register, either individually or as a contributing element to a historic district or cultural landscape, in consultation with the SHPO/THPO; or

b. The existing culvert is less than 50 years old.

12. Reburial of Human Remains and Other Cultural Items Subject to the Native American Graves Protection and Repatriation Act (NAGPRA): The Streamlined Review Process may be used for the reburial of human remains and other cultural items subject to NAGPRA. The Streamlined Review Process may only be used when:

- a. The reburial is in previously disturbed areas and does not introduce ground disturbance beyond documented disturbance; or
- b. The reburial is in previously inventoried areas found to not contain historic properties.

Any reburial in NPS-administered areas must be in conformance with NPS policies on cemeteries and burials including cultural resource policies.

13. Meeting Accessibility Standards in Historic Structures and Cultural Landscapes: The Streamlined Review Process may only be used for the following undertakings intended to meet accessibility standards:

- a. Reconstruction or repair of existing wheel chair ramps and sloped walkways provided the undertaking does not exceed the width or depth of the area of previous disturbance.
- b. Upgrading restroom interiors in historic structures within existing room floor area to achieve accessibility, unless the historic features and/or fabric of the restroom contribute to the historic significance of the structure.

14. Mechanical, Electrical and Plumbing Systems: The Streamlined Review Process may be used as follows for activities related to mechanical, electrical, and plumbing systems. Such systems may include HVAC systems, fire detection and suppression systems, surveillance systems, and other required system upgrades to keep park lands and properties functional and protected.

- a. Park areas, landscapes, buildings, and structures that have been determined not eligible for the National Register in consultation with the SHPO/THPO, may undergo installation of new systems or repair/upgrading of existing systems in accordance with the Streamlined Review Process.
- b. Properties that have been determined eligible for the National Register in consultation with the SHPO/THPO may undergo limited upgrading of mechanical, electrical, and plumbing systems. However, the Streamlined Review Process may not be used for the installation of new systems or complete replacement of these systems. If proposed activities include the removal of original historic elements or alter the visual character or the property's character-defining materials, features, and spaces, then the Streamlined Review Process may not be used.

- c. If the project activities include ground disturbance, archeological monitoring may be appropriate throughout the ground disturbing activities, in accordance with any recommendation of the CRM Team. When monitoring is recommended, members of any appropriate Federally recognized Indian Tribes or Native Hawaiian organizations may be invited to participate in monitoring.
15. Acquisition of Lands for Park Purposes: The Streamlined Review Process may be used for the acquisition of land for park purposes, including additions to existing parks. The second criterion for use of the Streamlined Review Process (identification and evaluation of all types of historic properties within the project APE; see Section III.A.2) does not apply to this activity, provided the acquisition does not include any further treatment or alteration of properties, since access to land for inventory and evaluation prior to NPS acquisition may be limited. Any known or potential historic properties on the land acquired should be protected from demolition by neglect. Pursuant to 36 CFR 800.5(a)(2)(vi), demolition by neglect constitutes an adverse effect. If any undertakings are proposed in conjunction with the acquisition that have the potential to affect historic properties, the Streamlined Review Process may not be used.
16. Leasing of Historic Properties: The Streamlined Review Process may be used provided all treatment of historic properties proposed in relation to the leasing action is consistent with undertakings eligible for Streamlined Review, set forth in Section III.C of this PA. The Streamlined Review Process may not be used where there is a change of use or where a series of individual projects cumulatively results in the complete rehabilitation or restoration of a historic property.

#### **D. Adding to List of Undertakings Eligible for Streamlined Review**

Any proposed additions or revisions to the list of undertakings eligible for streamlined review must be developed through a region-, state- or park-specific Programmatic Agreement and pursuant to 36 CFR 800.14(b). The Regional Director or Superintendent, as appropriate, will develop such agreements with SHPOs/THPOs, in consultation with Federally recognized Indian Tribes and the ACHP or others, as appropriate. If such an agreement is developed by the Superintendent, s/he will notify the Regional Director. Regional Directors will report the development of supplemental, region-, state-, or park-specific programmatic agreements to the Director on an annual basis. The NPS FPO will maintain records on supplemental agreements and provide annual notification of any such agreements to all signatories to this agreement.

#### **IV. STANDARD REVIEW PROCESS**

All undertakings that do not qualify for streamlined review as described in Section III above, will be reviewed in accordance with 36 CFR Part 800. Superintendents are responsible for compliance with these regulations. Compliance may also be accomplished through park- and/or project-specific programmatic agreements. Specific activities required will be undertaken by the

Park Section 106 Coordinator, in consultation with appropriate members of the CRM Team. Parks are encouraged to use Servicewide automated project planning and tracking systems, such as the NPS Planning, Environment and Public Comment (PEPC) system, to track and document Section 106 compliance activities and to make such automated systems accessible to compliance partners, including SHPOs/THPOs, Federally recognized Indian Tribes, Native Hawaiian organizations, and/or the ACHP. If a park executes a MOA or PA with consulting parties to resolve adverse effects, the Superintendent will provide an informational copy of the agreement to the Regional Section 106 Coordinator.

## **V. NATIONAL HISTORIC LANDMARKS**

The NHPA provides heightened protection for designated National Historic Landmarks (NHLs) through Section 110(f) and the NHPA's implementing regulations (36 CFR 800.10). Specifically, the NHPA requires that Federal agencies shall, to the maximum extent possible, undertake planning and actions necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking.

Where the other criteria as listed in Section III.A are met, proposed undertakings that may affect a designated NHL may follow the Streamlined Review Process. Where preliminary planning activities indicate that a proposed undertaking has the potential to have an adverse effect on an NHL, prior to initiating a formal consultation process, the Superintendent will initiate an internal review process in accordance with NPS Management Policies to determine alternatives to avoid or minimize the adverse effects and to assess the possibility of impairment.

## **VI. INADVERTENT DISCOVERIES**

In the event that historic properties are inadvertently encountered during an undertaking for which review has been previously conducted and completed under Section III or Section IV of this PA, or through other events such as erosion or animal activity, the Superintendent will notify the SHPO/THPO, Federally Recognized Indian Tribe(s), and or Native Hawaiian organization, as appropriate, within 48 hours, or as soon as reasonably possible. The Superintendent in consultation with the Section 106 Coordinator and the appropriate members of the CRM Team, will make reasonable efforts to avoid, minimize, or mitigate adverse effects on those historic properties in consultation with the SHPO/THPO, Federally recognized Indian Tribe (s), and/or Native Hawaiian organization (s), as appropriate. If human remains or other cultural material that may fall under the provisions of NAGPRA are present, the Superintendent will comply with NAGPRA and ARPA. The Superintendent will ensure that any human remains are left in situ, are not exposed, and remain protected while compliance with NAGPRA, ARPA, or other applicable federal, state, and/or local laws and procedures is undertaken.

## **VII. EMERGENCY ACTIONS**

Emergencies are those actions deemed necessary by the Superintendent as an essential and immediate response to a disaster or emergency declared by the President, a tribal government, or the Governor of a State, or another immediate threat to life or property. Emergency actions are only those actions required to resolve the emergency at that time and they are limited to undertakings that will be started within thirty (30) days after the emergency has been declared. Such emergency actions will be consistent with the NPS Environmental Safeguards Plan for All-Hazards Emergencies and any other approved servicewide emergency response plans. The Superintendent will notify the SHPO/THPO within 24 hours of the declared emergency or as soon as conditions permit.

## **VIII. REVIEW AND MONITORING OF PA IMPLEMENTATION**

The purpose of the PA review and monitoring process is to ensure NPS protection of historic properties in its stewardship. This is accomplished through the review of undertakings that were completed during the reporting period, review of programmed undertakings, review of implementation of the PA, and review of completion of training requirements.

### **A. Superintendents Biennial Review and Monitoring Meeting**

In order to foster cooperative relations, each Superintendent will, at a minimum, invite consulting parties to a review meeting every two years (biennial), with the first meeting initiated within six months of the signing of this PA by all parties. If all parties agree that such a meeting is not necessary at that time, the meeting may be waived. However, Superintendents shall remain responsible for initiating biennial meetings in subsequent years. More frequent meetings may be appropriate based on specific park circumstances and therefore an alternative meeting schedule may be established, if mutually agreed upon by the parties.

1. Meetings may be conducted in any mutually agreeable location and/or format, including in- person, video conferencing or teleconferencing.
2. The primary invitees to each park's biennial review and monitoring meeting will include the applicable SHPO/THPO, Federally recognized Indian Tribes, and Native Hawaiian organizations with an interest in that park's properties. Superintendents may also consider inviting other interested parties, including Pacific Islanders, concessioners, lessees, friends groups, historic societies, or gateway communities, as appropriate.
3. Superintendents may instead choose to meet individually with some parties, particularly those that have strong interest in specific historic properties.
4. Attendance and meeting minutes will be recorded and distributed to all invited parties after the conclusion of the meeting.

5. Specific discussion items may include the following:
  - a. Any documentation pursuant to this PA.
  - b. Any inventories of historic properties developed in the previous two years, or opportunities for future inventory and research, as well as other reports and research results related to historic properties.
  - c. Programmed undertakings that are scheduled, or are likely to be scheduled, for the next two fiscal years.
  - d. Provisions of this PA as well as any project- or program-specific Memoranda of Agreement or Programmatic Agreements.
  - e. Training received by park staff during the reporting period and opportunities for cooperative training arrangements.
  - f. Names of and contact information for the Park Section 106 Coordinator and the CRM Team Members.

**B. Superintendents Reporting to NPS Regional Directors**

In order to inform park program review and potential ACHP evaluation of PA implementation, Superintendents will report biennially to Regional Directors on implementation of the PA. The Biennial Report shall include the streamlined review data prescribed in Section III B of this PA, training completed and basic data demonstrating compliance with the provisions of this PA as outlined in the guidance document for this agreement (Section I.A.2). ACHP, SHPOs, or THPOs may request hard copies of biennial reports.

**C. Park Section 106 Program Review by NPS Regional Directors, SHPOs, THPOs, and the ACHP**

1. The Regional Director may, at his/her discretion, initiate a review of a park's implementation of this PA. The ACHP, either at its own discretion, or upon request of a Federally recognized Indian Tribe, SHPO/THPO, or Native Hawaiian organization, may at any time raise with the appropriate Regional Director any programmatic or project matters where they wish the Regional Director to review a Park Superintendent's Section 106 decisions. The Regional Director will consult with the ACHP, and the Regional Director shall provide a written response to the ACHP, and where applicable, the SHPO or THPO, that documents the outcome of the consultation and the resolution. The Regional Director has the option to suspend a park's use of this PA, and subsequently reinstate it as appropriate.
2. Documentation of NPS Section 106 reviews not already provided to SHPOs, THPOs, and the ACHP will be available for review by the ACHP and the appropriate SHPO/THPO upon request. Individual SHPOs/THPOs who wish to review this documentation are responsible for specifying scheduling, frequency, and types of undertakings of concern to them.

#### **D. NPS Regional Directors Reporting to the Director of the NPS**

Regional Directors will report biennially to the Director on implementation of this PA within his/her region. Each Regional Biennial Report will be submitted within six (6) months following receipt of Park Biennial Reports by the Regional Director as required in Section VIII.B of this PA. A hardcopy of the biennial reports will be sent to the ACHP and upon request from a SHPO or THPO.

#### **IX. SUBSEQUENT AGREEMENTS**

A. Upon execution of this PA, Superintendents are encouraged to evaluate their park's programs and discuss with SHPOs/THPOs, Federally recognized Indian Tribes, Native Hawaiian organizations, and/or the ACHP ways to develop supplemental programmatic agreements for park undertakings that would otherwise require numerous individual requests for comments.

B. Development of programmatic agreements specific to a project, plan, or park may be negotiated between Superintendents and SHPOs/THPOs, Federally recognized Indian Tribes, Native Hawaiian organizations, the ACHP, and/or other consulting parties where appropriate, pursuant to 36 CFR 800.14(b), and may be independent of or supplement this PA. Superintendents will provide an informational copy of all agreements to the Regional Section 106 Coordinator.

C. Memoranda of agreement developed to resolve adverse effects for specific projects shall be negotiated between Superintendents and SHPOs/THPOs, Federally recognized Indian Tribes, Native Hawaiian organizations, and/or the ACHP, pursuant to 36 CFR 800.6(c), and shall be independent of this PA. Superintendents will provide an informational copy of all agreements to the Regional Section 106 Coordinator.

#### **X. DISPUTE RESOLUTION**

A. Should disputes arise, the Superintendent, SHPO/THPO, and/or the ACHP will consult with the objecting parties to resolve the objection. All work that is the subject of the dispute will stop until the dispute is resolved in accordance with the procedures in this section. If the dispute cannot be resolved, all documentation relevant to the dispute will be forwarded to the parties named above. If the SHPO/THPO objects to a Park Superintendent's decision, the information will be forwarded to the Regional Director. If the National Park Service objects to the SHPO/THPO's opinion, the information will be forwarded to the ACHP. If the Regional Director cannot resolve a SHPO/THPO objection, the Regional Director will forward to the ACHP relevant documentation not previously furnished to the ACHP and notify the Director of the dispute. Within thirty (30) days after receipt of all pertinent documentation, the ACHP will either:

1. Provide the Regional Director with a recommendation, with an information copy provided to the Director, which the Regional Director will take into account in reaching a final decision regarding the dispute; or
2. Notify the Regional Director that it will comment to the Director pursuant to the provisions of 36 CFR 800.7 and proceed to comment. Any ACHP comment provided in response to such a request will be taken into account by the NPS with reference to the subject of the dispute.

B. In the event the ACHP does not respond within thirty (30) days of receipt of all pertinent documentation, the Regional Director may proceed with his or her recommended resolution.

C. At the request of any individual, agency, or organization, the ACHP may provide the NPS with an advisory opinion regarding the substance of any finding, determination, or decision made in accordance with this PA or regarding the adequacy of the NPS' compliance with Section 106 and this PA.

## **XI. MONITORING AND TERMINATION**

A. The NPS will convene a meeting of the signatories to this PA within two (2) years of execution of the PA and as needed thereafter, to review implementation of the terms of this PA and determine whether revisions or amendments are needed. Meetings may be conducted in any mutually agreeable location and/or format, including in-person, video conferencing, or teleconferencing. If revisions or amendments are needed, the parties will consult in accordance with 36 CFR 800.14.

B. This PA may be amended when such an amendment is agreed to in writing by all signatories. When major revisions are proposed to NPS policies that will affect the manner in which the NPS carries out its Section 106 responsibilities, the signatories shall consult to determine whether an amendment to this PA is needed. Any amendments will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

C. Any party to this PA may terminate it by providing ninety (90) days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. Termination by any Federally recognized Indian Tribe signatory will be limited to termination of this PA on the tribal lands of the subject tribe. In the event of termination, the NPS will comply with 36 CFR Part 800 with regard to individual undertakings otherwise covered by this PA.

## **XII. SEVERABILITY**

A. If any section, subsection, paragraph, sentence, clause, or phrase in this PA is, for any reason, held to be unconstitutional or invalid or ineffective, such decision shall not affect the validity or effectiveness of the remaining portions of this PA.

B. If any section, subsection, paragraph, sentence, clause, or phrase in this PA is, for any reason, held to be unconstitutional or invalid or ineffective, the signatories shall consult to determine whether an amendment to this PA is needed.

**XIII. ANTI-DEFICIENCY ACT STATEMENT**

The stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act (31 U.S.C. 1341 (1998)). If compliance with the Anti-Deficiency Act alters or impairs NPS ability to implement the stipulations of this Agreement, NPS will consult in accordance with the dispute resolution, amendment or termination stipulations as specified in Sections X and XI of this PA.

**ADVISORY COUNCIL ON HISTORIC PRESERVATION**

BY: [Signature]  
CHAIRMAN

DATE: 11/14/08

**NATIONAL PARK SERVICE**

BY: Mary A. Bomar  
DIRECTOR

DATE: 11/14/08

**NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS**

BY: Jay D. Vogt  
PRESIDENT

DATE: 11-14-2008

Appendix B  
Golden Gate National Recreation Area  
Cultural Resources Publications  
Baseline Documentation and Treatment Recommendations

Parkwide

General Management Plan (2014)

Golden Gate National Recreation Area Trail Management Plan: Cultural Resources Protocols Agreement (2013)

Preservation Guidelines for Residential Leased Properties, Golden Gate National Recreation Area (2013)

Archeological Sensitivity Models Revisions (Gavette 2012-present)

Golden Gate National Recreation Area, Signage & Graphics Guide Guidelines, Hunt Design (2009)

Site Furnishing Standards, Golden Gate National Recreation Area (2009)

Ethnohistory and Ethnogeography of the Coast Miwok and Their Neighbors, 1783-1840 (Milliken 2009)

Ohlone/Costanoan Indians of the San Francisco Peninsula and Their Neighbors, Yesterday and Today (Milliken, Shoup, and Ortiz 2009)

Archeological Sensitivity Model of San Francisco and San Mateo Lands of Golden Gate NRA (Barnaal 2004)

Golden Gate and Point Reyes Archeological Research Issues (Praetzellis, Stewart, Meyer, Waghorn, and Douglass 2003)

Archeological Sensitivity Model of Marin Lands of Golden Gate NRA (Barnaal and Barker 2003)

Seacoast Fortifications Preservation Manual (1999)

Point Reyes National Seashore Affiliation Study (Emberson 1999)

NPS Guide to Sustainable Military Earthworks Management (1998)

Submerged Cultural Resources Assessment of Golden Gate and Point Reyes (Delgado and Haller 1989)

The Prehistory of San Francisco (Rudo 1982)

Golden Gate National Recreation Area Archeological Overview and Assessment (Kelly 1976)

Marin Archeological Settlement Patterns (Van Dyke 1972)

Archeological Sites Management Information System Records

California Historic Resource Information System Records

### Alcatraz Island

Remote Sensing in the Alcatraz Recreation Yard (Everett and Desmet 2012)

Alcatraz Recreation Yard Preservation Plan (Sitten, Chapman, and Rice 2012)

Preliminary Citadel ASR Documentation (Hagin, Gavette, Barker 2011)

Alcatraz Island National Historic Landmark Cultural Landscape Report (2010)

Cultural Landscape Inventory, Alcatraz Island, National Park Service, Golden Gate National Recreation Area (2005)

Historic Furnishing Report: Alcatraz Island-Main Prison Building (2005)

Alcatraz Barracks Building 64 Historic Structures Report (2003)

Alcatraz Powerhouse Building Abbreviated Historic Structures Report (2002)

Alcatraz Model Industries Building Abbreviated Historic Structures Report (2002)

Alcatraz Island Historic Preservation and Safety Construction Program, Final Environmental Impact Statement (2001)

Alcatraz Guardhouse Complex Historic Structures Report (2001)

Alcatraz New Industries Building Abbreviated Historic Structures Report (2001)

Alcatraz Post Exchange Abbreviated Historic Structures Report (2001)

Alcatraz Quartermaster Warehouse Building Abbreviated Historic Structures Report (2001)

Alcatraz Indian Occupation Graffiti (Noxon and Noxon 1971, Scolari and Salisbury 1997)

Warden Residence Rehabilitation: Archeological Monitoring (Fox 1995)

Alcatraz Development Concept Plan and Environmental Assessment (1993)

Alcatraz Cell House Historic Structures Report, Golden Gate National Recreation Area (1992)

National Register Nomination (1976); and National Historic Landmark Nomination (1986)

### Fort Mason

Fort Mason Cultural Landscape Report, Treatment (2012)

Marina Boulevard Track Removal Archaeological Report (Pastron 2012)

Franklin Street Rehabilitations: Archeological Monitoring Reports (Spillane 2011)

Franklin Street Rehabilitations: The Ossuary Pit at Point San Jose Hospital (Barker 2010, Spillane 2013)

Franklin Street Rehabilitations: Archeological Assessment (Holman and Psota 2010a, 2010b)

F-Line Archeological Report (Psota 2010)

Fort Mason Cultural Landscape Report, Part II: Treatment Fort Mason Center (2009)

Fort Mason Historic Assessment Report for Buildings 235, 238, 239, 240 and 241 (2007)

Fort Mason Officers' Club Historic Structure Report (2005)

Fort Mason Cultural Landscape Report (2004)

Cultural Landscape Inventory, Fort Mason (2004)

San Francisco Port of Embarkation Historic Structure Report (1991)

Black Point Battery Archeological Research Design (Delgado 1983)

Black Point Battery Archeological Excavations (Mayer et al, Draft 1982-1989)

Fort Mason Osteological Remains (Eschmeyer and Schonewald 1981)

Civil War Barrack, Building 240, Fort Mason, Historic Structure Report (1980)

Fort Mason National Register Form (1979)

Fort Mason Building 201 Historic Structure Report (1978)

Fort Mason Archeological Test Excavations (Baker, 1978a, 1978b)

#### Fort Point

Fort Point Exterior Drainage Archeological Assessment (Meyer and Massey 2012)

Golden Gate Bridge, Fort Point Bluffs, and Waterfront Cultural Landscape Report (2012)

Fort Point Barbette Tier Archeological Study (Massey and Meyer 2011)

Fort Point U.S. Coast Guard Station Historic Structure Report (2008)

Fort Point Coast Guard Station Cultural Landscape Report (2007)

Fort Point Coast Guard Station Cultural Landscape Inventory (2006)

Fort Point Updated and Abbreviated Historic Structure report (2006)

#### Presidio

Archaeological Identification and Monitoring Plan: Baker Beach Disturbed Area 1 (Hauer and Haessler 2013)

East Battery Remediation Archeological Monitoring (Meyer 2012)

Presidio of San Francisco National Historic Landmark Update (2012)

Presidio Coastal Trail Special History (2010)

Baker Beach Disturbed Area Archeological Monitoring (Stoyka 2010)

California Coastal Trail in Fort Winfield Scott: A Cultural Resource Report (Martini 2009)

Presidio Coastal Batteries Drainage Systems (Martini 2007)

Presidio Building 1648 Determination of Eligibility (2006)

Baker Beach Disturbed Area Test Excavations (URS 2005)

Protocols for Contaminated Archeological Artifacts found on Presidio Park Lands (Praetzellis 2005)

West Battery & Fort Scott Endicott Batteries – Construction, Evolution, and Modifications (Martini 2005)

Presidio Quartermaster Dump Data Recovery (Clark and Ambro 2002)

Doyle Drive Archeological Survey and Evaluation (Jones & Stokes, Albion Environmental, and PastForward , 2002)

Crissy Field Prehistoric Site CA-SFR-129 (Clark 2001)

Crissy Field Archeological Inventory Trenching (Clark 2000)

Crissy Field Archeological Research Design (Ambro 1999)

Presidio Quartermaster Dump Data Recovery Proposal (Clark and Ambro 1999)

Presidio Archeological Management Plan (Adams, Draft 1995)

Presidio of San Francisco Cultural Landscape Report (1993)

Presidio of San Francisco National Historic Landmark Nomination (1993)

#### Fort Miley

Fort Miley and the Marine Exchange Lookout Cultural Landscape Report (2013)

Point Lobos Lookout Station (Octagon House) Physical History Report (2010)

San Francisco Veterans Association Medical Center Determination of Eligibility (2008)

Golden Gate Cemetery Excavations (Buzon et al. 2005)

Point Lobos Fort Miley Determination of Eligibility (1980)

#### Lands End, Sutro District

Merrie Way Stands Public Stewardship and Reporting (Spillane 2012)

Ocean Beach Seawall and Esplanade Determination of Eligibility (2011)

Merrie Way Stands Site (CA-SFR-174H) Data Recovery (Praetzellis 2010)

China Beach Bath House Determination of Eligibility (2009)

Historic Assessment of Sutro Baths (ARG 2009)

Merrie Way (CA-SFR-174H) Research Design (Meyer 2008)

Grounds for Pleasure: Merrie Way Stands Archeological Management Assessment (Barker 2007)

Lands End – Ocean Terrace (CA-SFR-164H) Archeological Test Excavations (Meyer 2007)

Lands End – Ocean Terrace 1890-1920: Historic Context (Martini 2006)

Site Stabilization in a Public Place: CA-SFR-5 at the Point Lobos Archeological Sites (Barker 2005)

Sutro Historic District Cultural Landscape Inventory (2005)

Abbreviated Cultural Landscape Report for Lands End (2005)

Sutro District Archeological Management Assessment (Barker 2001)

Sutro Historic District, Vol 2, Cultural Landscape Report (1993)

Sutro Heights Park, Cultural Landscape Analysis (1992)

Cliff House Historic Structures Report (1987)

North Annex Cliff House Historic Structures Report (1987)

Sutro Baths Preliminary Archeological Investigation (Holman 1977)

Fort Funston and Ocean Beach

Sloat Boulevard Buried Ship Documentation (1992)

Lake Merced Cultural Resource Overview (Shoup and Baker 1981)

King Philip/Reporter Shipwreck NRHP Documentation

Forts Baker, Barry and Cronkhite—Marin Headlands

Rodeo Valley Stables (Balloon Hangar, Motor Vehicle Shed and Rifle Range Camp are of Fort Barry) Cultural Resource Reports and Site Treatment: Cultural Landscape Report, Historic Structure Reports, Archeological Assessment and Treatment Report (2013)

Cultural Landscape Report, Forts Baker, Barry Cronkhite, Vol II (Draft 2013)

Cultural Landscape Report, Forts Baker, Barry Cronkhite, Vol I (Draft 2012)

Fort Barry Firing Range Cultural Landscape Report (Rurik 2010)

Battery Construction 129 Hawk Hill Historic Structure Report (2008)

Fort Baker Archeological Landscape Features (Barnaal and Barker 2007)

Records Research Report: Fort Barry (TetraTech 2007)

Wolf Ridge Archeological Survey (Koenig 2007)

Fort Baker Lateral Fire Archeological Survey (Liu 2006)

Fort Barry Balloon Hangar and Motor Vehicle Sheds, Abbreviated Historic Structures Report (2005)

Cultural Landscape Inventory, Point Bonita Historic District (2005)

Cultural Landscape Report for Fort Baker, Golden Gate National Recreation Area (2005)

Gerbode Valley Archeological Survey: Bobcat Burn (Barnaal 2005)

Road Work Ahead: Road Rehabilitation in the Marin Headlands (Barker and Barnaal 2005)

Cultural Landscape Inventory for Fort Baker, Golden Gate National Recreation Area (2004)

Rodeo Lagoon Environmental History (Striplen et al. 2004)

Historic Road Character Study: Marin Headlands (Feierabend 2004)

Fort Baker Geoarcheological Exploration (Dalldorf and Meyer 2004)

Fort Baker Historic Building Reports (2002)

Fort Baker Archeological Survey (Stewart, Meyer, Newland 2001)

“What We Have, We Shall Defend;” An Interim History and Preservation Plan for Nike Site SF-88L, Fort Barry (1998)

Point Bonita Archeological Report (Pastron 1998)

Fort Baker Archeological Overview and Assessment (Barker and Mayer 1997)

Forts Baker, Barry, Cronkhite National Register Nomination Form (1973)

#### Muir Woods

Muir Woods Cultural Landscape Report (started 2013)

Dipsea Trail Determination of Eligibility (2010)

Muir Woods Cultural Landscape Inventory (2007)

Camino del Canyon Determination of Eligibility (2007)

Historic Resources Study for Muir Woods National Monument (2006)

Muir Woods Sewer Archeological Survey (Duncan 1989)

#### Redwood Creek

Golden Gate Dairy (Lopes Brothers Dairy or Ranch M) Cultural Resource Reports and Site Treatment: Cultural Landscape Report, Cultural Landscape Inventory, Historic Structure Reports, Archeological Assessment and Treatment Report (2013)

Ranch M (Golden Gate Dairy) National Register Nomination (2008)

Redwood Creek and Big Lagoon Geoaicheological Study (2002, 2005)

Golden Gate Dairy Preservation Plan (2003)

Golden Gate Dairy Physical History Report (2001)

#### Slide Ranch to Bolinas Lagoon

Bolinas Lagoon Gulches Archeological Survey (Loyd, Origer, and Thompson 2004, Thompson 2009)

Slide Ranch Historic Assessment (Clark 2004)

McKenna Gulch ARPA Violation Damage Report (Barker 2003)

Slide Ranch Prehistoric Site Assessments (CA-MRN-199 and CA-MRN-572/H)(Clark 2001)

Slide Ranch Archeological Survey (Duncan 1989)

Hill 640 Military Reservation National Register Form (1980)

### Tennessee Valley

Tennessee Valley Stabled (Cunha/Repozo Ranch or Ranch A/B) Cultural Resource Reports and Site Treatment: Cultural Landscape Report, Cultural Landscape Inventory, Historic Structure Reports, Archeological Assessment and Treatment Report (2013)

Ranch AB (Miwok Stables) National Register Determination of Eligibility (2008)

Tennessee and Oakwood Valley Archeological Surveys (King and Fredrickson 1979)

### San Mateo Lands

Rancho Corral de Tierra Determination of Eligibility (2011)

San Mateo Parklands Historic Resource Study (Postel 2011)

West Union Creek Archeological Survey (Spillane 2009)

Archeological Management Assessment for San Mateo Trails (Barker 2006)

Mori Point Archeological Survey (Barker 2005)

Native American Adaptations Along the San Mateo and Santa Cruz Coast (Hylkema 1991)

Top of the Peninsula: A History of Sweeney Ridge (Babal 1990)

San Mateo County National Register Nomination (1973)