Actions Common to All Alternatives

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INTRODUCTION

While three different concepts for management are presented in the three action alternatives described in this document, there is some overarching management direction that will continue to guide the park and monument, regardless of the alternative selected. Some of these actions have developed through time from the founding principles of the park and monument; some are currently underway; and some are required by law or policy. The actions discussed in this section will occur regardless of the management alternative selected.

BOUNDARIES

The 1978 National Parks and Recreation Act (16 USC 1a-7) requires general management plans to address potential modifications to the park boundaries. Park boundaries are often initially drawn to reflect a wide range of practical considerations, and they do not necessarily reflect natural or cultural resource features, administrative considerations, or changing land uses. Current or potential changes in adjacent land uses could pose threats to park resources and limit the staff's ability to strengthen the fundamental resources that support the park purpose and significance.

Golden Gate National Recreation Area and Muir Woods National Monument are part of a larger area of protected open space in the Bay Area. The natural and cultural resources of the park would face a greater threat if not for the many other open space areas that contribute to the integrity of coastal ecosystems, scenic beauty, recreational opportunities, and the preservation of historic resources.

GOALS

The potential park boundary modifications would be guided by the following three major 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. In addition, boundary modifications would restore natural processes and ecosystem capacity to respond to the effects of climate change. Boundary adjustments would be guided by science-based approaches that build on the goals of cooperative regional efforts.

3. Preserve nationally important natural and cultural resources related to the park's purpose.

In addition to following this guidance, the park staff would play a partnership role in regional land and marine area protection efforts. This role includes coordinating and developing multiple strategies with adjacent public land managers and open space organizations when land acquisition goals and objectives can be shared.

Any proposed boundary changes would be critically evaluated to confirm that such actions contribute to achieving the park's mission and resource protection goals and that the park is not accepting undue management burdens. Proposed land acquisitions must be feasible to administer considering their size, configuration, costs, and ownership. In

addition, changes could be made if the land acquired was needed to address operational and management issues, such as visitor access, or to have logical and identifiable boundaries. The potential boundary modifications would continue to be made with regional collaboration in mind, while working to strengthen and protect the park's natural, cultural, recreational, and scenic resources.

PROPOSED BOUNDARY ADJUSTMENTS

Below are proposed boundary adjustments. Each meets NPS criteria for boundary adjustments and is consistent with the goals stated above.

Ocean Environment, San Mateo County

In San Mateo County, the park's legislative boundary along the Pacific coast includes about 10 miles of shoreline. Unlike in San Francisco and Marin counties, the boundary does not extend beyond the line of mean high tide. The single exception is at the Fitzgerald Marine Reserve where the boundary extends 0.25 mile offshore. The boundary does not include sections of the coast that are densely settled, such as Pacifica, or areas of private property except where the park has easements. This exclusion of offshore areas restricts coordinated management of critical resources and visitor activities with the National Oceanic and Atmospheric Administration, the Bureau of Land Management, and California State Parks. Lack of a consistent boundary also poses difficulties in coordinating with local public safety departments for visitor protection services, which can complicate rescue and recovery efforts.

The proposed boundary adjustment would establish a consistent offshore boundary for NPS lands in San Mateo County. The proposed boundary would extend 0.25 mile from the line of mean high tide wherever the park's legislative boundary already extends to the shore. Areas that are offshore of property that is not already in the park's legislative boundary would not be included in this adjustment. See figure 3.

Management of the areas added to the park boundary would be guided by NPS Ocean Stewardship policy and the primary management purposes identified in the California state tide and submerged lands leases that the park retains over other portions of the offshore ocean and bay environment in San Francisco and Marin counties. These purposes include the following:

1. To enhance public safety, use, and enjoyment of the subject lands and waters.
2. To protect and conserve the environment and any cultural resources that may be present.
3. To preserve the subject lands in their natural state and protect them from development and uses that would destroy their scenic beauty and natural character.
4. To provide for recreational and educational opportunities.

5. To consistently manage the subject lands with the administration and management of Golden Gate National Recreation Area, so long as it is not inconsistent with California state law.

In a separate action, the park could pursue additional state land leases in order to manage tide and submerged resources within the park's boundary in San Mateo County.

Gregerson Property, San Mateo County

Forming a long rectangle of about 207 acres, with three sides in common with the 4,200-acre Rancho Corral de Tierra property, the Gregerson property was acquired by Peninsula Open Space Trust in 2001. The property is largely undeveloped, with the exception of an access road and residential structures. The road, which runs along the ridge, provides access to the upper reaches of Rancho Corral de Tierra and would be critical for park management purposes. In addition to supporting this operational need, the property would simplify and reduce the length of the park's perimeter, expand the area of habitat for federally listed plant and animal species, connect wildlife habitats, support recreational opportunities—including trail connections along the scenic ridgetop on an existing narrow road—and protect remarkable scenic coastal views. The Gregerson property addition has the same qualities as Rancho Corral de Tierra and would be managed as part of the larger Rancho Corral de Tierra unit. The residence, with a functioning well, septic system, and solar panel complex, could be retained for environmental education, park operations, or other park purposes. Rancho Corral de Tierra was added to the park boundary in 2005, through Public Law 109-131.

Vallemar Acres – Part of Cattle Hill, San Mateo County

The parcel consists of 60 acres of undeveloped land owned by the city of Pacifica. It is on the southern, lower slope of Cattle Hill and extends to the property lines of residences on the north side of Fassler Avenue. This parcel would be managed as part of the Cattle Hill parcel. The area was determined appropriate for acquisition in the *Pacifica Boundary Study* (NPS 1998) and is adjacent to lands with similar characteristics that were added to the park in Public Law 106-350.

Highway Frontage – Part of West Cattle Hill, San Mateo County

This rectangular parcel consists of 5 acres of undeveloped land along Highway 1. It is owned by the state and managed by Caltrans. It forms the western end of Cattle Hill. This parcel would be managed as part of the larger adjacent Cattle Hill parcel. The area was determined appropriate for acquisition in the *Pacifica Boundary Study* (NPS 1998) and is adjacent to lands with similar characteristics that were added to the park in PL 106-350; these lands could provide trailhead access to NPS managed lands at Cattle Hill and Sweeney Ridge.

McNee Ranch, San Mateo County

This 625-acre former ranch property is a unit of the California state park system, managed as part of Montara State Beach. The property is the only state park land adjacent to the Golden Gate National Recreation Area that is not also within the federal authorized boundary. Flanked by Rancho Corral de Tierra and land the National Park Service anticipates it will receive from Caltrans following completion of the Devil's Slide Tunnel, coordinated resource preservation and management of visitors to this property is critical. The park includes a small trailhead at Highway 1, and a pedestrian bridge and ranger residence near the equestrian center on Martini Creek in Rancho Corral de Tierra. No other major structures are present. No major changes in management would likely result if the land were added to the federal holding.

At present, visitors enjoy sweeping vistas of the Pacific Coast and rugged coastal hills from a network of multiuse trails and unpaved fire roads. These routes connect Pacifica with the coastside communities of Montara and Moss Beach, and lead to the highest points on Montara Mountain. The Bay Area Ridge Trail and San Francisco Public Utilities Commission are planning east-west trail connections that would better link the bay with the ocean. The park has extensive biodiversity, especially on the serpentine soils of the lower slopes where such endangered species as Hickman's potentilla *(Potentilla hickmanii)* and San Mateo thornmint *(Acanthomintha duttonii,)* are found.

Bolinas Lagoon

Bolinas Lagoon is one of Marin County's most significant natural resources. Its 1,100 acres, known as the Bolinas Lagoon Open Space Preserve and managed by the Marin County Open Space District, was designated a Wetland of International Importance by the Ramsar Convention in 1998. Along with Drake's Estero and Tomales Bay, Bolinas Lagoon provides an important coastal environment for fish, birds, and mammals that is unparalleled along the northern California coast between the San Francisco and Humboldt bays. Most of the eastern shoreline of the lagoon and portions of the adjacent uplands and small tributary creeks that support federally endangered steelhead trout are managed by the National Park Service. The Gulf of the Farallones National Marine Sanctuary also encompasses Bolinas Lagoon with overlapping management authority with Marin County and the National Park Service. Marin County, the National Oceanic and Atmospheric Administration, and the Army Corps of Engineers are currently developing plans for restoring natural processes and ecosystem integrity to the lagoon to mitigate for past human activity in the watershed.

POTENTIAL FUTURE BOUNDARY ADJUSTMENTS

The National Park Service does not manage all the lands within the legislative boundaries of Golden Gate National Recreation Area; there are public lands within the boundaries that are managed by other agencies. Golden Gate National Recreation Area staff will continue to monitor these lands and coordinate with these land managers in a way that maintains and enhances the values that contributed to the lands being included in the

boundary. Some of these efforts could lead to eventual acquisition by the National Park Service.

Several areas are of great interest to the National Park Service and appear to meet the NPS criteria for boundary adjustments. The park would continue working with open space partners to pursue protection of these properties, possibly including an NPS boundary adjustment, guided by the goals expressed earlier.

Priority Conservation Areas

Four areas adjacent to the park were identified as Priority Conservation Areas through a regional planning effort led by the Association of Bay Area Governments and documented in *Golden Lands, Golden Opportunities (*Bay Area Open Space Council, 2009). Multiple strategies and multiple land managers could have a role in managing these lands. At this time, no specific boundary adjustments are proposed by the park in these areas (which are listed below). However, future studies are anticipated that would evaluate which specific properties within these areas would be most appropriately managed by the National Park Service.

Marin City Ridge, Marin County

Undeveloped lands adjacent to the park's Marin Headlands unit could enhance protection for the park's natural, scenic, and recreational resources while improving trail connections into an underserved community. These sites were evaluated in a boundary study in 2005 and determined appropriate for inclusion into the park.

Pacifica Conservation Area (South of Mussel Rock to McNee Ranch), San Mateo County

Disconnected, undeveloped parcels at the fringes of the Pacifica community could enhance continuity of existing Golden Gate National Recreation Area lands, including the park's trail links to the California Coastal Trail and Bay Area Ridge Trail and improve natural resource corridors.

Montara Mountain Complex, San Mateo County

Undeveloped parcels adjacent to Rancho Corral de Tierra could strengthen protection of threatened and endangered species and contribute to the regional conservation efforts focused on preserving large natural resources corridors and scenic beauty.

Gateway to the San Mateo County

Comprising a large area of land between Rancho Corral de Tierra and Highway 92, this area could contribute substantially to natural resource protection, the regional trails network, and preservation of scenic and rural character.

Other Potential Acquisitions

Marin County Transportation Hub

The park anticipates requesting the authority to extend the boundary to include a location for a transit hub that would serve the Muir Woods shuttle. The hub would support

improved public access to Muir Woods and other nearby recreational areas, and reduce congestion associated with recreational travel to west Marin County. This hub would need to occur somewhere along the developed Highway 1-U.S. 101 transit corridor in southern Marin County.

Upland Goals Conservation Areas

A science-based approach towards identifying biologically important lands for protection in the San Francisco Bay Area was developed by the Bay Area Open Space Council (Weiss et al. 2008), with participation of NPS staff. The result is a network of conservation areas based on computer models that strives to achieve conservation goals for targeted vegetation types and individual species along with assessments of viability, ecological integrity, and level of connectivity of conservation lands. The model output identifies lands adjacent to the park that would help sustain diverse and healthy communities of plant, fish, and wildlife resources in the nine-county Bay Area. Some of these areas overlap with Priority Conservation Areas identified in the FOCUS study.

Stinson Beach Environs

Currently undeveloped lands located near Panoramic Highway have been identified as essential conservation areas and would help enhance the park's protection of contiguous coastal biological resources.

Lower Redwood Creek

Lands along the Redwood Creek corridor below its intersection with Highway 1 have been identified as essential conservation areas and would help enhance the park's protection of contiguous stream resources and associated threatened and endangered species.

Nyhan Creek

Lands along the Nyhan Creek corridor from its headwaters to the bay have been identified as an essential conservation area and would help the park contribute to the protection of contiguous stream resources within the region.

Mori-Milagra-Sweeney Connector

Currently undeveloped lands in the Pacifica area have been identified as essential conservation areas; their protection would help the park increase the long-term resiliency of small natural areas such as Milagra Ridge as well as secure important habitat corridors to facilitate species and community movements over time and space.

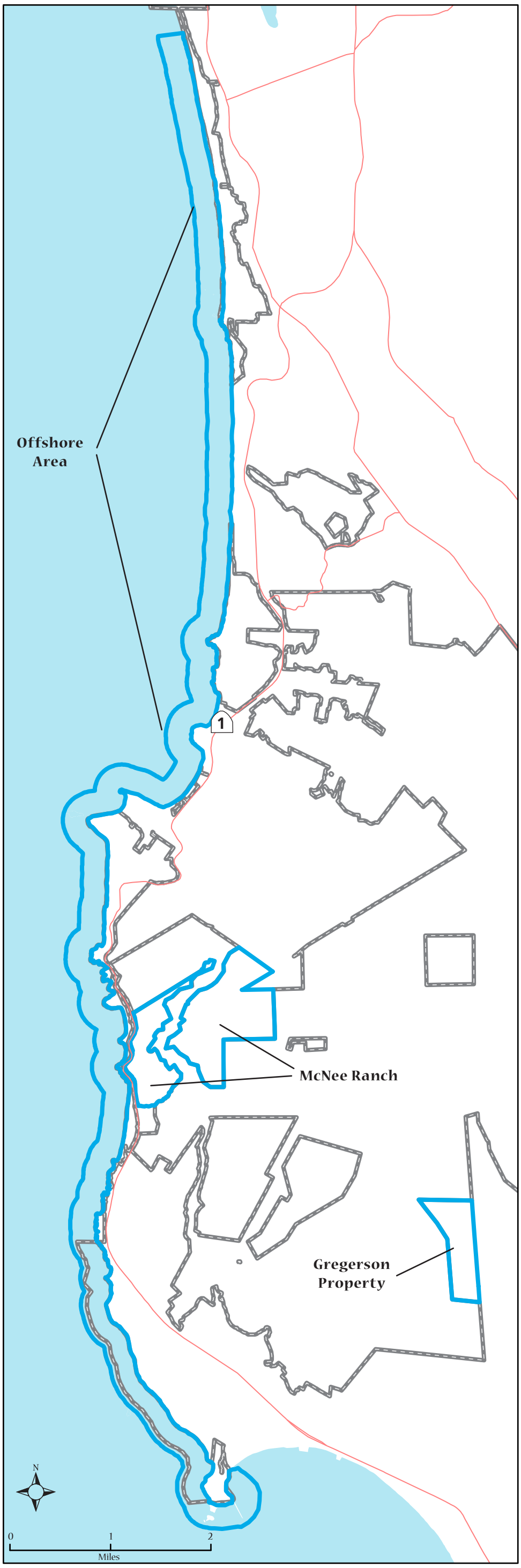
San Pedro Mountain and Rancho Corral de Tierra Environs, south to Highway 92

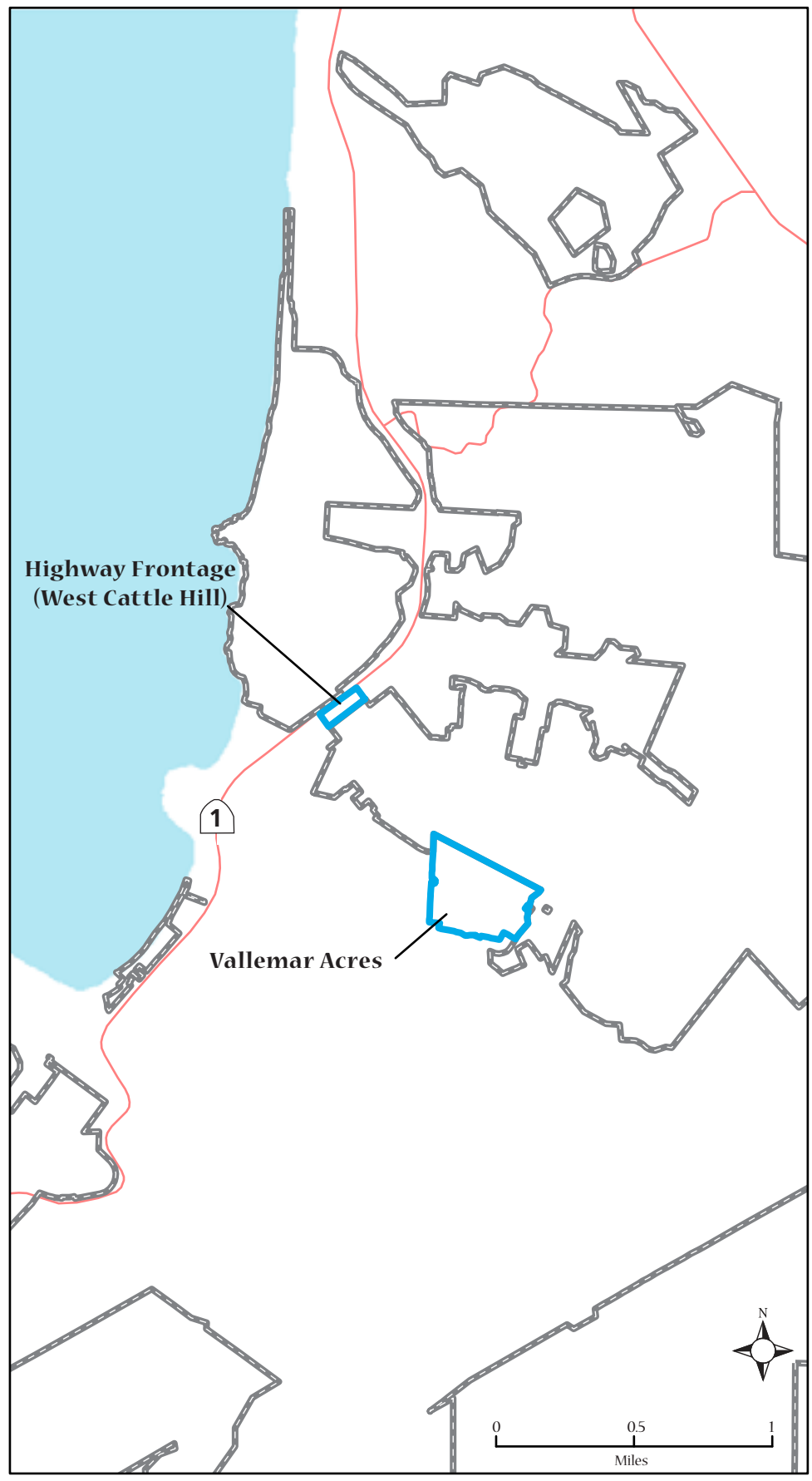
Currently undeveloped lands in the Montara, Moss Beach, and Half Moon Bay areas have been identified as essential conservation areas; their protection would help the park increase the core of protected lands along the spine of the San Francisco peninsula. Similar to those in the Pacifica area, these protected areas would provide important habitat corridors to facilitate species and community movements over time and space.

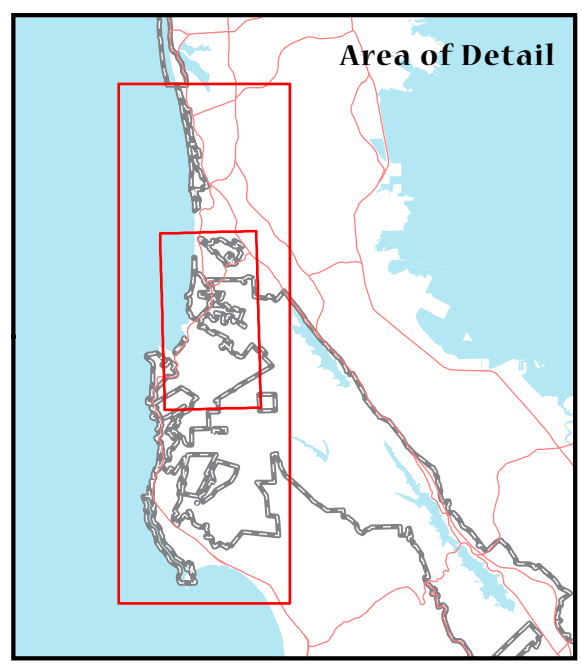
Undeveloped Land Adjacent to Sweeney Ridge and County of San Francisco Jail Property

The property is adjacent to park land, sharing two sides with Sweeney Ridge. It contains county jails #3 and #7, along with a plant nursery and cultivated fields. A large portion of the 145-acre property, roughly 50 acres, is undeveloped and relatively undisturbed. This

undeveloped area is contiguous with the extensive coastal ecosystems that the National Park Service manages on Sweeney Ridge. It has similar scenic qualities and habitat values, including potential habitat for threatened and endangered species. Inclusion of the undeveloped area in the park's boundary would enable the National Park Service to receive it, should the county government declare the property excess.







Proposed Boundary Adjustments

Proposed Boundary Adjustment

Current Legislative Boundary

Roads

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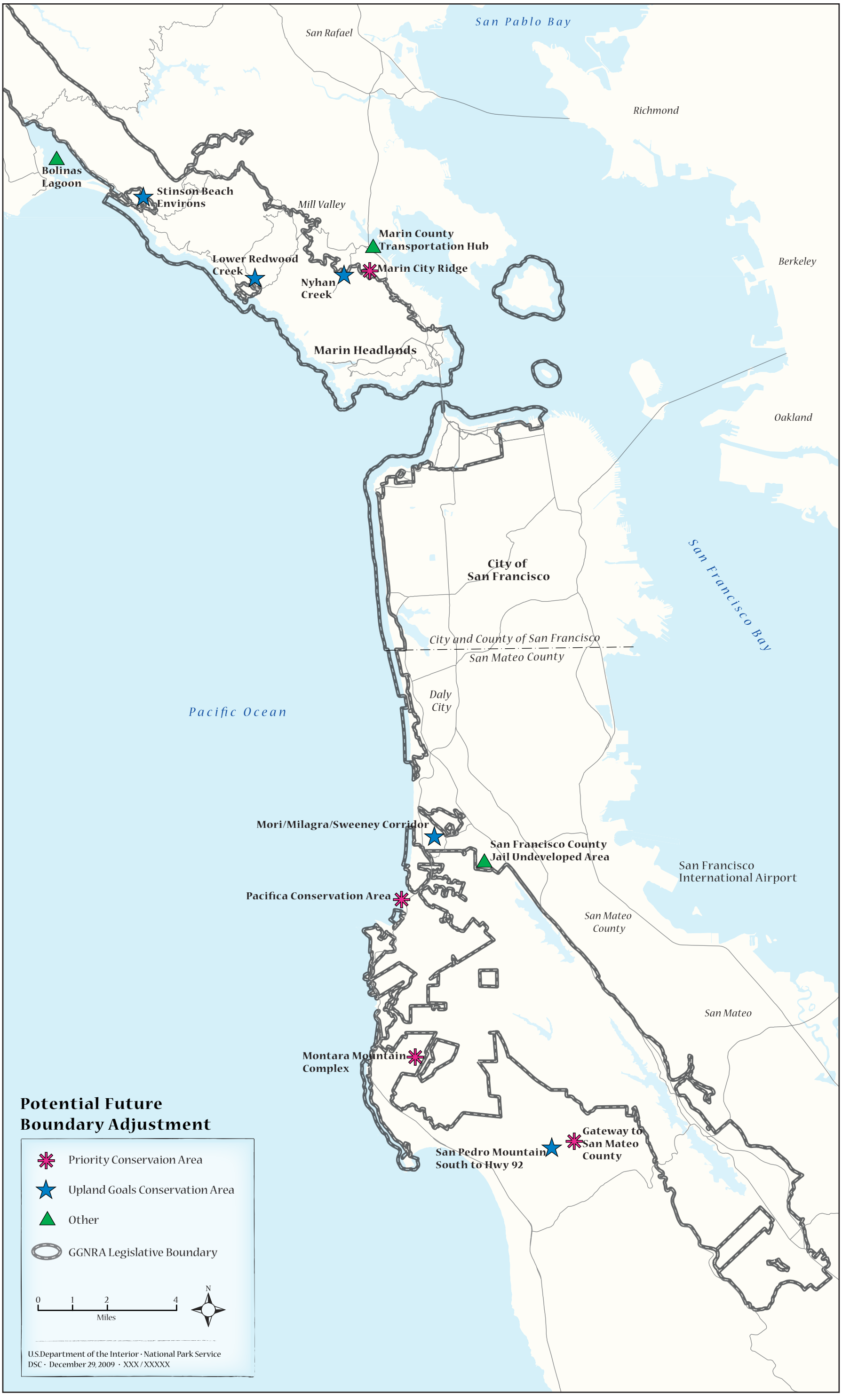
San Pablo Bay
San Rafael
Richmond
Bolinas Lagoon
Stinson Beach Environs
Mill Valley
Marin County Transportation Hub
Lower Redwood Creek
Marin City Ridge
Nyhan Creek
Berkeley
Marin Headlands
Oakland
City of San Francisco
San Francisco Bay
City and County of San Francisco
San Mateo County
Daly City
Pacific Ocean
Mori/Milagra/Sweeney Corridor
San Francisco County Jail Undeveloped Area
San Francisco International Airport
Pacifica Conservation Area
San Mateo County
San Mateo
Montara Mountain Complex
Gateway to San Mateo County
San Pedro Mountain South to Hwy 92
Potential Future Boundary Adjustment
Priority Conservaion Area
Upland Goals Conservation Area
Other
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DSC · December 29, 2009 · XXX / XXXXX

CLIMATE CHANGE

The National Park Service has developed goals to guide the way climate change would be addressed. Sustaining and restoring park resources in the face of climate change will require the National Park Service to address many challenges to the integrity of cultural and natural resources. The *General Management Plan* describes the approach that the park would take to reduce emissions, educate visitors on the topic, and adapt to the effects of climate change during the next 20 years. In addition, the park maintains a "Climate Change Action Plan" that outlines the actions that would be taken to accomplish these broad goals.

GOALS

1. Reduce CO_2 Emissions

   Become a carbon neutral park by 2016 by reducing the CO_2 emissions of NPS and partner operations, increasing the use of renewable energy and other sustainable practices, and reducing visitor emissions by lessening dependency on personal automobiles.

   National parks can demonstrate how to minimize their contribution to global warming through practices such as energy efficiency and use of renewable energy. Because emissions from visitor driving are estimated to contribute to more than 90% of the park's emissions, the park staff and partners would assist in reducing visitor greenhouse gases by providing opportunities for alternative transportation options.

2. Educate and Interpret

   Help park visitors understand the process of global warming, climate change, the threats to the park, and how they can respond. Visitors are inspired to action through leadership and education.

   Through the efforts of employees, partners, and educational and interpretive media, the park staff can engage visitors on the topic of climate change, provide the latest park research and monitoring data and trends, inform the public about what response is being taken at the park, and inspire visitors to aid in that response.

3. Assess Impacts and Respond to Changing Conditions

   Proactively monitor, plan, and adapt to the effects of climate change by using the best information as it becomes available.

Climate change is a global phenomenon, outside the control of the National Park Service. The park cannot control the impacts of climate change on the park through its own emissions reductions and education practices. However, the park staff would do our part to improve conditions and demonstrate environmental leadership.

NPS staff would use and promote innovation, best practices, and partnerships to respond to the challenges of climate change and its effects on park resources. By using and developing tools and monitoring methods, including seeking outside assistance, the park staff can better respond to climate change. The park staff would interpret climate change science and develop management strategies, which may include predicting and projecting expected changes. The park staff would coordinate with other agencies in developing tools and strategies to help identify and manage climate change impacts. By adopting the best information on climate change as it becomes available, the park staff would be positioned to respond quickly and appropriately to the local effects of climate change.

The park staff may choose to use an adaptive management framework to respond to the effects of climate change. Temperature and precipitation changes may require that the park manages for native biodiversity and ecosystem function instead of managing for natural communities. In most cases park managers would allow natural processes to continue unimpeded, except when public health and safety or the park's fundamental resources and values are threatened. Scenario planning would likely play a pivotal role in developing the park's responses to climate change.

The park staff would coordinate with neighboring communities while implementing adaptation strategies that support the protection, preservation, and restoration of coastal wetlands and coastal processes, and can serve as vital tools in buffering coastal communities from the effects of climate change and sea level rise.

MANAGEMENT STRATEGIES

To meet the above goals, a more detailed management approach would be developed. The management approach would be an evolving process. The park staff would utilize local, regional, and larger scale monitoring, modeling and mapping evaluations. Through this data gathering, the park staff would identify and refine the assessment of park lands and resources that are vulnerable to sea-level rise, extreme storms, and associated coastal erosion. Predictions and observations of other climate change effects, including weather, local climatic conditions, and phenology, would be gathered. Based on this information combined with the results of targeted monitoring, park managers could position themselves to respond and adapt according to changing conditions—a sort of early detection system. The following approaches and management actions could be implemented to respond to the effects of climate change on park resources:

Natural Resources

- Reduce current and future stressors to the resource and the environment; this would improve the condition of the resource and build resiliency in the ecosystem that would help to minimize future adverse effects of climate change.
- Collect and/or document resources that would be otherwise lost to the effects of the climate change (e.g., fossils, unique geologic resources, unique biological resources).
- Sustain native biodiversity.
- Reduce habitat fragmentation and increase habitat connectivity and movement corridors.
- Restore and enhance habitats.
- Focus on ecosystem management and natural processes.
- Restore naturally functioning ecosystems.
- Manage for biological diversity.
- Minimize impact of invasive species.
- Plan for post-disturbance management.
- Employ adaptive management.
- Manage for realistic outcomes (triage).

Cultural Resources

- Reduce current and future stressors to the resource; this would improve the condition of the resource and help to minimize future adverse effects from climate change.
- Develop triage criteria that would assist the park staff in prioritizing preservation treatments and other management actions. The decision on how to best treat a resource facing potential adverse effects from climate change should be based on (1) significance of the resource, (2) feasibility of the preservation action, (3) cost of the treatment/action, and (4) confidence in the data used to determine potential effects of sea-level rise or climate change on the resource.
- Give highest priority to preserving cultural resources and artifacts in situ, coupled with sustainable efforts (intervention techniques) to mitigate and reduce any stressors that might adversely affect the resource.
- Pursue managed retreat when the results of the triage process indicate that preservation treatment or relocation is not practical.
- Pursue recordation and relocation of the resources with high significance and technically and economically feasible treatment and relocation options, and where there is high confidence in the predicted effects of sea-level rise or other climate change impacts.

Visitor Experience

- Continue to provide a range of experiences by transitioning recreational use away from locations where changes in resource conditions no longer support such uses.
- Remove existing visitor facilities and discontinue recreational uses where continued use is unsafe, infeasible, or undesirable due to changing environmental conditions.
- Evaluate and support changing visitor use patterns as appropriate.

FACILITIES NOT DIRECTLY RELATED TO THE PARK MISSION

Maintaining park facilities in acceptable condition is a continuing challenge that requires a multitude of management strategies. The park manages 1,150 assets without the funding required to do so adequately. Some of the facilities do not meet the needs of the park and its partners, and therefore are unused and deteriorating.

The total assets of the park requires $24.6 million in annual operations and maintenance; yet, typically, only $5.3 million has been allocated towards that need. This leaves a gap of nearly $20 million of maintenance need unfunded each year. Related to the inability to fund all maintenance needs is the $198.1 million in deferred maintenance backlog related to park and partner assets. The $6.0 million typically allocated from special project funding each year for this need does not adequately reduce the deferred maintenance backlog.

This general management plan proposes to remove assets that are in poor condition and are not contributing to the preservation of natural or cultural resources or supporting the visitor experience. Disposal of unneeded assets would allow funding and staff resources to be redistributed to higher value assets.

While building the GMP alternatives, the planning team identified facilities that did not contribute to the park mission. Further evaluation with an interdisciplinary team led to the identification of assets proposed for removal and the development of the following strategies. Before any facility would be scheduled for removal, appropriate National Environmental Policy Act and National Historic Preservation Act determinations would be completed.

The management team will continue to monitor and identify facilities not needed for implementation of the selected alternative in an effort to bring assets to acceptable conditions and to sustain those conditions over time.

GOALS

- Address the gap between maintenance funding and maintenance needs through reducing the number of park assets that require ongoing maintenance
- Continue to address deferred maintenance by reducing the number of park assets
- Support asset management strategies identified in the park asset management plan
- Enhance the preservation of natural and cultural resources, support the visitor experience, and support park and partner operational needs through asset removal

MANAGEMENT STRATEGIES

1. Muir Woods National Monument Maintenance Facilities

   The park staff has identified inefficient and deteriorating structures to be removed from the monument. Removal would allow for further natural resource restoration and a reduced development footprint consistent with the action alternatives. Through these actions, there is potential for deferred maintenance reductions of $40,000.

2. Camino del Canyon and Conlon Avenue Structures

   The park staff has proposed removal of deteriorating structures that do not significantly contribute to cultural resource preservation. Removal would be in concert with natural resource restoration objectives, including habitat restoration, and restoration of the natural functioning of the tributary creek. Through this action, there is potential for deferred maintenance reductions of $210,000.

3. Lower Redwood Creek and Tennessee Valley Structures

   Facilities that do not support the park mission and some that are in deteriorated condition were identified for removal. Removal of these structures would allow for extensive natural resource restoration, including a return of natural watershed processes, preservation of outstanding natural features, and protection of threatened and endangered species like the Coho salmon and red legged frog. Riparian areas adjacent to Tennessee Valley would also be enhanced through facility removal. Through this action, there is potential for deferred maintenance reductions of $600,000.

4. Structures in Marin County park lands, including Capehart housing

   Housing and associated sheds and outbuildings north of Bunker Road were identified for removal to improve the scenic entrance to the Rodeo Valley. Other structures were identified for removal in support of the cultural landscape and for habitat restoration. Through this action, there is potential for deferred maintenance reductions of $670,000.

MAINTENANCE, PUBLIC SAFETY, AND MUSEUM STORAGE FACILITIES

Park maintenance, public safety, and museum collections storage functions are scattered throughout the park at sites and facilities that in many cases were not intended for these uses. These functions have had to adapt to conditions that do not adequately meet their space, size, function, mobility, and security requirements. Maintenance and public safety operations have also had to move numerous times, requiring them to reprogram their operations each time, resulting in many inefficiencies. Locating the park's museum collection in multiple storage facilities jeopardizes long-term preservation and restricts the collection's availability for research, education, and interpretive programming, thus limiting its usefulness to the public and park personnel.

The following section proposes a comprehensive approach to building and facility uses necessary to meet the existing and projected needs of these operational functions in conjunction with all draft alternatives. The actions proposed are based on a thorough analysis of park programs and facilities, including the possibilities for locating functions outside park boundaries. The park has other operational facilities such as staff offices, housing, native plant nurseries, and horse patrol facilities. The locations of these facilities vary among the alternatives and are addressed in the description of the alternatives.

GOALS

The large scale of the park, with sites distributed across three counties, poses a distinct challenge to providing facilities for maintenance and public safety operations. Over the years, a system organized around centralized facilities supported by smaller satellite sites has been an effective and successful means to manage the park. It is proposed to continue this organizational concept, but to more permanently establish the locations of the centralized facilities. This will allow the park to gain efficiencies through consolidation of some functions in central facilities and still retain the flexibility to meet dispersed maintenance and safety needs through the satellite offices.

MANAGEMENT STRATEGIES

Centralized Maintenance Facilities

Three new maintenance facilities would be established in the park. North of the Golden Gate Bridge, a new centralized facility would be constructed in part of the Capehart housing area of the Marin Headlands. This new facility, about 45,000 square feet in size, would be a state-of-the-art, environmentally sustainable complex that would accommodate the park's Buildings and Utilities, Roads, and Marin Grounds functions. The project would include the demolition of selected housing units and new construction

of shops, offices, covered storage, parking, and work yards. Maintenance operations presently located in Fort Baker (Building 513) and Fort Cronkhite (Buildings 1046, 1070, Nike missile launch site) would be relocated to this new facility.

South of the Golden Gate Bridge, the National Park Service would rehabilitate one of the buildings in the Presidio that formerly served as stables for the U.S. Cavalry to house the centralized maintenance functions for Area A, the part of the Presidio for which the Park Service is responsible. Reuse of the cavalry stables building would be contingent upon an agreement between the National Park Service and the Presidio Trust. Existing NPS maintenance operations currently spread among several Presidio buildings would be consolidated at the former stables site.

At Muir Woods National Monument, essential public safety and maintenance functions would continue to be located near the monument entrance. These functions could remain in existing structures or be incorporated into the new welcome center. However, the other maintenance operations would move from the Old Inn and lower Conlon Avenue areas to a new facility shared with California State Parks in Kent Canyon. This action is dependent upon an interagency agreement with California State Parks.

Public Safety Hub

A single centralized operational hub would be developed at Fort Baker to meet park law enforcement needs. These functions would be located in Building 507. Park wildland fire functions (offices, garaged vehicles, and fire caches) would be relocated from Fort Cronkhite Buildings 1068 and 1069. These functions would move to the former Nike missile launch site near the Marine Mammal Center that would be vacated by the current Roads operation. The historic fire station would remain at Fort Cronkhite. Dispatch and communications operations that serve the park and the Presidio would remain at Presidio Building 35 in the Main Post area.

Satellite Offices

A well distributed system of park operations satellite offices already exists in Marin County and San Francisco County park lands. These sites would need minor improvements to function more efficiently. Satellites would be extended into San Mateo County by adapting existing park sites for these uses, or through partnerships with other agencies. Typically, each satellite site may have the capacity to collocate functions from several different divisions. The following is a list of satellite locations:

- Stinson Beach – No change is anticipated to the scale of the office, which serves both maintenance and public safety functions.
- Marin Headlands – Law enforcement would continue to have access to offices used by the wildland fire program in Fort Cronkhite .
- Presidio of San Francisco – Public safety would continue to have access to offices by the U.S. Park Police.
- Alcatraz Island – Public safety offices would remain in Building 64, and maintenance facilities would be expanded in the rehabilitated Quartermaster Warehouse.

- Fort Mason – Maintenance and public safety would continue to have administrative offices at park headquarters in Fort Mason. Grounds maintenance facilities would remain.
- Fort Miley –Maintenance and public safety facilities would continue at East Fort Miley.
- Fort Funston –The existing public safety and maintenance offices would remain. A small building for heavy equipment would be constructed.
- San Mateo County north of Devil's Slide –Maintenance and public safety offices could be located at the current Shelldance nursery area or at San Pedro County Park in Pacifica.
- San Mateo County south of Devil's Slide– A new satellite office for maintenance and public safety offices would be developed at a location yet to be determined.

GOALS FOR MUSEUM STORAGE FACILITIES

The park's museum collection would be consolidated into two neighboring buildings in the Presidio that formerly served as stables for the U.S. Cavalry. The buildings would provide adequate space for the collection, and their rehabilitation would meet national standards for security, fire protection, and environmental control. This facility would also provide public space for exhibits and programs that engage visitors in memorable and meaningful learning opportunities based on the collection. This action is dependent upon an interagency agreement with The Presidio Trust.

NATIVE AMERICAN ENGAGEMENT

Since the late 1990s, the NPS staff has worked with the Federated Indians of Graton Rancheria (the federally recognized tribe comprised of park-associated Coast Miwoks and Southern Pomos), with the many Ohlone tribes seeking federal recognition, and with Ohlone individuals who partake in the stewardship of Ohlone heritage. Park lands in Marin County are the aboriginal homelands of Coast Miwoks. Park lands in San Francisco and San Mateo counties are the aboriginal homelands of Ohlones. The park staff would continue to work with Coast Miwoks and Ohlones in the three broad activity areas in which it has worked with them to date: cultural resource management, interpretation and education, and revitalization of community and tradition.

GOALS

1. Survey, Identify, and Inventory Archeological and Ethnographic Sites

   The park staff, together with tribal representatives, would continue to conduct fieldwork to survey, identify, and inventory archeological and ethnographic sites, as well as test, record, and preserve these sites.

   American Indians are permitted by law, regulation, or policy to pursue customary religious, subsistence, and other cultural uses of resources with which they are traditionally associated. Recognizing that its resource protection mandate affects this human use and cultural context of park resources, the National Park Service would plan and execute programs in ways that safeguard cultural and natural resources while reflecting informed concern for the contemporary peoples and cultures traditionally associated with them.

2. Work with Park-Associated Native People on a Range of Interpretive and Educational Activities

   The park would continue to work with park-associated native people on a range of interpretive and educational activities. These activities could include Indian-led interpretive programs offered throughout the park, permanent and temporary exhibits on native history and culture, annual commemorative festivals with native components, teacher trainings on Native American curricula, and participation of native people on visitor center advisory boards.

3. Continue to support the Revitalization of Coast Miwok and Ohlone Communities and Traditions

   The park would continue to support the revitalization of Coast Miwok and Ohlone communities and traditions. Native people would continue to conduct religious activities in the park, gather natural materials for use in traditional crafts, participate

in the study of native histories and genealogies, and work with the park staff on ethnographic landscape restoration efforts.

MANAGEMENT STRATEGIES

To provide direction for these activities, the National Park Service would work to establish and implement a set of protocols that would institutionalize the way that park staff engages Native Americans in the park. Each protocol agreement would be tailored to the specific type of relationship that the National Park Service and the tribe have developed or are in the process of developing. Protocols and agreements could be developed that may include the following elements or stipulations:

1. government-to-government relationship with the tribe by first contacting or notifying the tribal chair when issues arise
2. contacts by the park superintendent (or designated staff) with specific tribal representatives or tribal council office(s) designated by the tribal council or tribal chairperson to deal with specific park proposals (or issues) that may arise (The agreement should include a list of the types of proposed NPS activities for which the tribe would like to be contacted.)
3. routine notification of appropriate tribal officials (designated by the tribal council or tribal chairperson) by the park regarding park planning, project development, or environmental impact assessments (Appropriate methods for this preliminary notification should be summarized in the agreement—e.g., letter, telephone contact, meeting with tribal chair, cultural committee, tribal council.)
4. meetings between park management and the tribe on a periodic basis to review upcoming park plans or projects that may impact American Indian resources in or near the park (e.g., once a year, once every six months)
5. exchange of information and research results, and technical assistance between the National Park Service and the tribe
6. timeframe for responding to oral and written communications
7. steps for resolving disputes (e.g., alternative dispute resolution processes, third party mediation, or mediation by the NPS regional director or Native American Affairs Office director)
8. process for amending or modifying the agreement
9. time period in which the agreement would remain in effect
10. process for ending or canceling the agreement

OCEAN STEWARDSHIP

This section of the general management plan articulates an ocean stewardship policy that is based on and intended to support the Pacific West Region's strategic plan. The strategies and objectives included below are targeted at addressing the unique needs of Golden Gate National Recreation Area's ocean resources. The park would develop an implementation plan that would contain specific actions intended to achieve the measures included below.

With its boundary extending a quarter of a mile offshore, Golden Gate National Recreation Area manages miles of coastline and the associated marine and estuarine resources inside San Francisco Bay and along the outer coast. The park holds a lease from the State Lands Commission for management of tidelands and submerged lands within the park boundary to 1000 feet offshore. In certain areas, the park shares overlapping management authority with the Gulf of the Farallones and Monterey Bay National Marine Sanctuaries (NMS).

Ocean resources, including natural marine resources and submerged cultural resources, are at risk due to a variety of threats. Climate change will cause sea level rise, changing storm patterns, and ocean acidification. Natural sediment transport, which affects shoreline and beach dynamics, is affected by sand mining, dredging, dredge disposal, shoreline stabilization structures, and altered flow regimes such as dams. Overflights, boats, and other uses of marine habitats cause disturbance to marine species. Invasive exotic species inhabit the park's ocean and estuarine waters, displacing native species. Recreational and commercial fisheries may impact nearshore fish populations and ecosystem dynamics. Water quality is threatened by pollution from runoff, landslides, shoreline development, sewage outfalls, vessel traffic, oil spills, and contaminants exposed from dredging. Potential wave and tidal energy developments may alter habitat and disrupt physical processes.

Effective management of the park's natural and cultural ocean resources requires a strategic approach. In 2006, the National Park Service developed an Ocean Park Stewardship Action Plan (NPS 2006) to respond to the issues and threats described above. The next year, in 2007, the Pacific West and Alaska Regions of the National Park Service developed a strategic plan for Pacific Ocean parks (NPS 2007), which provided guidance and implementation details for achieving the goals of the Servicewide plan.

GOALS AND MANAGEMENT STRATEGIES

In order to be an effective steward of the park's natural and cultural ocean resources, park staff must research, monitor, and protect these resources, expand current and explore new partnerships with other agencies and organizations, and communicate an ocean stewardship message to visitors, park managers, and the public. To accomplish this, park staff must develop a plan and then pursue funding and leverage partnerships.

Goal 1. Support a Seamless Network of Ocean Parks, Sanctuaries, Refuges, and Reserves

In order to effectively and efficiently manage the park's ocean resources, park staff must work with other agencies that have shared goals and objectives for marine resource protection. This local network currently includes Gulf of the Farallones National Marine Sanctuary, Monterey Bay National Marine Sanctuary, Cordell Bank National Marine Sanctuary, Point Reyes National Seashore, Farallon National Wildlife Refuge, Bolinas Lagoon Open Space Preserve, James V. Fitzgerald Marine Reserve, and portions of California Coastal National Monument.

Strategy1.1. To ensure that the network is seamless in practice, park staff will work to expand current collaboration and strengthen communication with federal, state, and local agencies with overlapping and adjacent jurisdiction and with nongovernment organizations for management of ocean resources.

Goal 2. Inventory, Map, and Protect Ocean Parks

In collaboration with other agencies and organizations managing ocean resources, park staff will further develop their understanding of the park's natural and cultural ocean resources.

Strategy 2.1. Through collaboration with other agencies and organizations, the park will continue to conduct and support regional baseline inventories, monitoring, and mapping of marine and estuarine resources.

Strategy 2.2. Park staff will identify and quantify threats to marine resources, including those associated with climate change and land- and water-based activities.

Strategy 2.3. Through the establishment of sensitive resource zones and special closure areas, the park will protect the most sensitive biological resources from disturbance.

Strategy 2.4. Park staff will engage in restoration of estuarine and coastal wetland habitats and will assess new restoration opportunities in response to changes from climate change.

Strategy 2.5. Park staff will continue to work with the State Lands Commission to obtain additional state lease of all tidelands and submerged lands within the park’s legislated boundary.

Strategy 2.6. Park staff will pursue the necessary authorization to correct coastal boundary deficiencies with respect to mean high tide line.

Strategy 2.7. Park staff will increase public awareness of park jurisdiction by working with the National Oceanic and Atmospheric Administration (NOAA) and the Federal Aviation Administration to include park boundaries and special closure areas on nautical and aviation charts.

Strategy 2.8. Park staff will work proactively with NOAA, the Minerals Management Service, and the Federal Energy Regulatory Commission, and other agencies where appropriate, in addressing planning efforts as they relate to renewable ocean energy.

Strategy 2.9. Park staff will work with local, regional, and state agencies to reduce point and nonpoint pollution sources within and adjacent to the park and improve water quality in the marine and estuarine waters by implementing best management practices.

Strategy 2.10. Park staff will work with the State Lands Commission, NOAA, and other agencies to identify and formally assess the condition and value of submerged shipwrecks and other submerged archaeological resources, and strategize for their protection, treatment, and interpretation.

Goal 3. Engage Visitors and the Public in Ocean Park Stewardship

Given the park's location and its millions of visitors each year, the park affords outstanding opportunities to educate the public about threats to ocean resources. Communication of scientific findings and outreach through education and stewardship programs are needed to elevate awareness of ocean issues, protect resources, and actively engage visitors and the public in ocean stewardship.

Strategy 3.1. Through collaboration with park partners, park staff will work to improve public understanding of the park as an ocean park through expanded interpretation and outreach through media and new technologies.

Strategy 3.2. Park staff will collaborate with the NPS Pacific Coast Science and Learning Center to expand communication of ocean science and research to park staff, visitors and the general public.

Strategy 3.3. Park staff will continue to engage students and visitors in ocean stewardship through the Crissy Field Center, park partners, and other organizations through educational programs.

Strategy 3.4. Park staff will support the Bay Water Trail as a form of sustainable recreation and collaborate with other organizations to outreach to trail users to ensure protection of marine and estuarine resources.

Goal 4. Increase Technical Capacity for Ocean Exploration and Stewardship

By drawing on the resources and expertise of other agencies and organizations, the park will leverage partnerships and increase its technical capacity to protect natural and cultural ocean resources.

Strategy 4.1. Through joint research programs with other agencies and organizations, park staff will facilitate research that improves our understanding of ocean resources.

Strategy 4.2. Park staff will partner with regional agencies on research and modeling of, and management response to, sediment dynamics and other coastal and ocean processes within the San Francisco littoral cell.

Strategy 4.3. Park staff will actively support ocean stewardship programs of park partners, such as California Seabird Protection Network, Gulf of the Farallones

National Marine Sanctuary Beach Watch program, and Point Reyes Bird Observatory (PRBO) Conservation Science's Alcatraz Island seabird program.

Strategy 4.4. Park staff will continue to partner with regional, state, and federal agencies to monitor and model sea level rise and other local effects of climate change and assess affects on ocean and coastal resources.

Strategy 4.5. Park staff will partner with local and regional scientific and political entities to develop protection, mitigation, adaptation and restoration strategies and provide guidance on management of park resources that may be affected by climate change, including inundation and accelerated coastal erosion associated with sea level rise, increased storm wave energy and altered flow regimes.

PARK COLLECTIONS

The park collections represent the fourth largest in the national park system, reflecting more than 200 years of the area's history. The park's legacy is reflected through artifacts relating to Native American culture, the evolution of military history from Spanish Colonial times to the coastal defense and cold war periods, the advances of maritime history and westward expansion, and the park's relationship with the surrounding San Francisco Bay Area communities. Highlighting this rich chronicle of history are significant collections from Alcatraz Island, the U.S. Army and Nike Missile Site; archeological remains from every episode of the park's history; and archival photographs, oral histories, architectural drawings, and documents. The park's natural specimen collections reflect the unique geological features and fragile biodiversity of the central Californian coastal ecosystems.

To convey the diversity and scope of the collections and their representation of the park's cultural and natural resource heritage, these policies allow the collections to be better understood through continued access, study, interpretation, and education, while ensuring their preservation.

The goals described below broaden the scope of collection management for long-term preservation and for the use of the collections in interpretive and educational programs.

GOALS AND MANAGEMENT STRATEGIES

1. Connect People with the Park's Collections
    - Develop a park collection program that engages the visitor in memorable and meaningful learning opportunities, broadens public access, and creates a sense of place within historic sites.
    - Create opportunities for individuals to participate in the stewardship of the park collections so that visitors connect with, learn about, and enjoy this park resource.
    - Conduct oral histories that capture the stories associated with the park's resources and primary interpretive themes. Preserve the oral histories and make them accessible to staff, visitors, researchers, and scholars.
    - Develop a research and scholar's program that expands our knowledge and understanding of the park collections. Using evolving technologies, develop partnerships with and links to local and national organizations to place the collections in a broader historical and scientific context.
    - Provide outreach opportunities to a wider community and national audiences through virtual technologies and traveling exhibits. These technologies and exhibits would inform and orient visitors, increase understanding and appreciation of park resources, and improve public use and accessibility of the park collections.

2. Strengthen the Collection Policy

   - Strengthen the park collections' comprehensiveness and representation of the park's significance and varied resources through the targeted collection of materials that are missing or misrepresented in the collections.
   - Establish a set of protocols with the repositories that maintain the park's natural history specimen collections that allows access for park staff, visitors, researchers, and scholars. Define parkwide policies for future collection and storage of the park's natural history specimens.

3. Preserve and Maintain the Collections

   - Provide facilities and implement programs that ensure the long-term preservation of the collections through regular maintenance and preventive conservation.
   - Evaluate and catalog the entire collection to ensure that materials are accessible and relevant to the park's purpose and significance.
   - Establish a curatorial and research facility that allows for consolidation of the park collections while meeting the national standards for security, fire protection, and environmental control. Provide public space for research and changing exhibits in this facility.

PARTNERSHIPS

When people engage with the park through participation in a park or park partner program, they make an emotional connection to the park. This connection often creates an appreciation and support for the national park and its resources. Golden Gate National Recreation Area has effectively created and maintained partnerships that have increased the number and diversity of channels through which the community and visitors can engage with the park, thus extending the opportunity of engagement to more people, in more ways. These opportunities not only strengthen ties to Golden Gate National Recreation Area, they help to strengthen Americans' ties to their national park system.

The entire organization at Golden Gate National Recreation Area works to facilitate and maintain partnership opportunities by incorporating partnership development into every aspect of the organization. This includes specifically recruiting and training for partnering skills, organizing park staff in a way that facilitates partnerships, and actively seeking partners in the search for solutions to park management issues. Park managers are constantly evolving the partnership concept and exploring partnership practices from around the globe to gather innovative partnership ideas and best practices. The park aspires to continue its role as a learning laboratory in developing powerful and successful partnerships in a national park. The park staff will continue its focus on partnership development using the following goals.

1. Be Proactive in Identifying Partnership Opportunities

   A partnership solution will be actively considered when tackling park management issues. The decision to establish a specific partnership is guided by a need that ties to and supports the park's purpose and significance, and which is best fulfilled or strengthened with a park partner. First, define the management issue and objectives; second, ask if a partner may be able to assist in meeting those objectives, or if working with a partner may improve park management's capabilities, the process, or level of community engagement. Then seek out the partner or partners who might be the most qualified and capable of meeting the objectives.

2. Develop Win-Win Partnerships

   Each partner needs to see their contribution alongside the benefit gained. Selecting and maintaining a partner requires a clear understanding of the mutual benefits. It is important to tie the partnership and its outcomes to the missions of each partner. Sharing resources, benefits, and recognition of successes keeps the partnership from becoming lopsided or dominated by any one player.

3. Be Innovative in Crafting Partnerships

   Partnerships may often be limited in vision, or significantly constrained by a risk-adverse perspective or a need to control outcomes. Golden Gate National Recreation

Area managers commit to a broad partnership vision that includes a capability to take reasonable risk in partnerships within the parameters of policy and a willingness to share control in enacting the vision for its park lands.

4. Share the Vision

The partners collaborate in developing and refining a shared vision of the need that is to be fulfilled and the work that is to be accomplished through the partnership. The shared vision is reflected both in the broad body of work and in each project or initiative that is undertaken. Each partnership will require a culture of full engagement from the very beginning that leads to collective enthusiasm and clear results.

5. Maintain Clear Expectations

Partnerships will require formal written agreements and work plans that define mutual interests and expectations, the roles and responsibilities of each partner, and clear accountability for the work to be performed. The staff of each partner organization needs to truly understand and embrace the mission and role of each partner and their contribution to stewardship of park resources and visitor opportunities. Good park partnerships represent a delicate balance between maintaining one's own identity and adding value to a collective effort of park stewardship.

6. Commit to Actively Managing Partnerships

All partners will invest time and resources in revisiting the partnership as needed to ensure it is on track and meeting the objectives. If a partnership is underperforming or not performing, Golden Gate National Recreation Area managers will reinvigorate, restructure, or end the partnership—redirecting the resources to a more successful or new partner.

REDWOOD CREEK VISION

Successful management of the Redwood Creek watershed requires a coordinated effort among the watershed's public and private landowners and resource managers. A vision for the Redwood Creek watershed was crafted through an extensive public planning process in 2003. This vision provides a foundation for land managers (including managers of Golden Gate National Recreation Area), residents, and businesses to manage the watershed for its ecosystem function, recreational opportunities, educational opportunities, cultural and agricultural resources, and rural character.

The vision for the future of the Redwood Creek watershed as an intact natural ecosystem offers opportunities for people to learn about, experience, and protect a blend of nature, rural character, and cultural history in an urbanized area. This vision is stated as a set of guiding principles for managing the watershed and desired future conditions for the watershed's natural and cultural resources; resident and visitor communities; and local infrastructure, facilities, and emergency services.

These desired future conditions are "what" statements, describing goals for resource conditions and human experience for the watershed's future. They do not prescribe how to attain these conditions. Determining how best to meet these conditions and where they should apply in the watershed would be accomplished in future planning, either on a watershed-wide basis or for individual projects or jurisdictions within the watershed.

GUIDING PRINCIPLES

1. Land management agencies, local communities, and the public work together to build support for and implement the watershed vision.
2. The watershed is managed as a model of the interdependency of all resources and beings, acknowledging the presence and activities of people historically and currently.
3. The natural beauty and rustic character of the landscape is maintained.
4. Sustainable land management and resource use practices are used to ensure natural and cultural resource protection, resident quality of life, and quality of visitor experience.
5. An adaptive, scientifically based approach provides the foundation for informed resource decision making and management of the watershed's resources, and scientific research in the watershed is encouraged and supported.
6. Education is provided as a foundation for future watershed protection and stewardship.
7. Opportunities for interactions with the natural and cultural environment are fostered.
8. People are active stewards of the watershed, and land management agencies provide an example for and promote stewardship of the watershed's resources by watershed residents and visitors.

DESIRED FUTURE CONDITIONS: NATURAL RESOURCES

1. The watershed is managed as an intact, continuous, and linked system from the ridge tops to the ocean, with all parts contributing to the health of the whole.
2. Ecosystem management in the watershed is founded on the restoration and protection of natural processes and disturbance regimes, such as fire and flooding.
3. Native plant communities are healthy and comprise a mosaic of diverse cover types, including native grasslands, chaparral, riparian woodland, hardwood and redwood forests, and wetlands.
4. Restoration and protection of a full range of natural geomorphic and hydraulic functions (such as sediment transport, channel migration, and recruitment of large wood) in Redwood Creek from its headwaters to the Pacific Ocean support complex instream and floodplain structure that, in turn, supports a diverse community of native aquatic and riparian-dependent species.
5. Aquatic ecosystem health is not impaired by water diversion or water quality degradation.
6. Invasion by and the adverse effects of nonnative plant and animal species on the ecosystem are reduced or reversed, and imperiled habitats are restored.
7. Special status and locally rare plant and animal species are protected and, where appropriate, their populations are expanded.
8. Human-caused erosion on watershed lands does not impact fish and aquatic habitat.
9. Native wildlife populations are viable and diverse, and key habitats and habitat links (i.e., corridors) are protected and restored.
10. Potential negative impacts of surrounding land uses are minimized.

DESIRED FUTURE CONDITIONS: CULTURAL RESOURCES

1. Residents and visitors are connected to the human history of the Redwood Creek watershed—its heritage as the ancestral homeland of the Coast Miwok, its role in agriculture in western Marin County, and its place in the history of recreation and the environmental conservation movement—through the preservation and interpretation of historically significant properties embodying this history.
2. Archeological sites in the watershed are identified, preserved, and interpreted.
3. The Coast Miwok heritage in the watershed is maintained and enhanced through cooperation with the Federated Indians of the Graton Rancheria, the descendent of the Coast Miwok inhabitants of the watershed.
4. The public agency landowners in the watershed work cooperatively to identify, preserve, and interpret archeological sites, artifacts, structures, and cultural landscapes of historic significance on public lands in the watershed.
5. Historically significant structures are preserved, rehabilitated, and reused, where opportunity allows and as appropriate.

DESIRED FUTURE CONDITIONS: VISITOR EXPERIENCE

1. Visitor experiences that are unique to this watershed are encouraged.
2. The watershed provides a range of visitor experiences, from wild to structured and from solitary to shared.
3. Access to the watershed and recreational opportunities are provided for a range of trail users through a well designed, comprehensive trail system.
4. Visitor uses and use levels are compatible with protection of natural and cultural resources of the watershed and visitor enjoyment.
5. Public education about watersheds, watershed management, and resource sustainability is provided through a range of program —both within and outside the watershed.
6. Visitors to the watershed are active stewards of watershed resources as volunteers, educators, students, land managers, and citizen experts.
7. People visit the watershed in a manner that minimizes traffic congestion and its related negative impacts to communities and watershed resources.
8. Visitor use rules and regulations for each land management agency in the watershed are made readily available and understandable for park visitors.
9. Visitor services are adequate to support visitor experience but are kept minimal to protect the natural and cultural resources and rural character of the watershed.

DESIRED FUTURE CONDITIONS: RESIDENT COMMUNITY

1. Resident communities are an integral part of the watershed and have minimal impacts on the natural environment.
2. Local residents are active stewards of the watershed and implement sustainable resource practices in their communities.
3. Watershed visitor traffic, parking, and recreation have minimal impacts on local communities.
4. Domestic water supply needs are met while minimizing impacts to natural resources.
5. Sustainable agriculture minimizes impacts on natural resources and provides visible connections to food production and the area’s agricultural history.

DESIRED FUTURE CONDITIONS: INFRASTRUCTURE, FACILITIES, AND EMERGENCY SERVICES

1. Water use throughout the watershed is monitored, and its effects on the watershed’s creeks and aquatic resources are understood.

2. Infrastructure and its maintenance are appropriate to public safety and the anticipated use while minimizing impacts on natural and cultural resources.
3. Infrastructure management is coordinated among responsible agencies, businesses, utilities, and residents.
4. Emergency services are provided throughout the watershed.

TRANSPORTATION

Continued transportation planning and management is key to providing the broadest range of access for all visitors to the Golden Gate National Recreation Area while reducing the park's carbon footprint. To protect the park's natural and cultural resources and provide for a high quality visitor experience, addressing congestion, improving safety, and facilitating access/circulation to and within the park must remain important components of park planning. Access to the park must be provided and improved via alternative modes such as transit, bicycle, ferries, and trails. These transportation strategies were highlighted in the 1980 general management plan for the park and they are even more relevant today, in the face of climate change.

The park would pursue sustainable, multimodal access to park sites in partnership with other organizations. By improving trails, roads, and transit connections, a network of equitable energy efficient, low-emissions multimodal transportation options would allow for enjoyable access to park sites.

GOALS

- Reduce greenhouse gas emissions.
- Create enjoyable and welcoming transportation experiences for all visitors.
- Preserve and protect park resources by minimizing transportation impacts.
- Create equitable and convenient multimodal transportation options to and within the park.
- Inspire an environmental consciousness by demonstrating environmental excellence in transportation.
- Optimize management of the park transportation system through coordinated planning, programming, management, and maintenance.

MANAGEMENT STRATEGIES

1. Expand Regional Park Ferry Access

   As envisioned in the 1980 general management plan, the staff at the Golden Gate National Recreation Area continues to pursue expanded ferry access as an alternative means of travel among Fort Baker, Fort Mason, and the Presidio including possible links to Alcatraz, Angel Island, Sausalito, Tiburon, Larkspur and the East Bay.

   The National Park Service would continue to collaborate with the Water Emergency Transportation Authority and the San Francisco Port Authority to explore a range of future ferry connections. These planning efforts seek to improve visitor experience with links between park sites and the regional ferry network. Water taxi access would

also be considered as a component of the full network of waterborne access where fixed route and scheduled ferry service many not be warranted.

2. Address Alcatraz Ferry Access

Consistent with regional, multiagency planning efforts, the National Park Service is evaluating new ferry departure points for Alcatraz Island from the northern waterfront of San Francisco.

3. Pursue online Trip Planning/Wayfinding

The park would continue to pursue improved mapping capabilities to enable visitor trip planning, integrated interpretive information and route planning, and other interactive tools. These ongoing improvements would be both online and at park and gateway sites. These website improvements would facilitate a broader understanding of park resources and the full array of transportation modes available to access them. Online trip planning would be linked or integrated with existing regional trip planning systems and other new technology encouraging use of alternative modes of access where available.

4. Explore Tools for Congestion Management

Congestion management or transportation demand management is a collection of management tools focused on shifting personal travel patterns to off-peak periods, more efficient modes (such as public transit and ridesharing) and alternative modes (such as cycling and walking) to offset vehicle congestion, particularly during peak periods. Tools could include improving and promoting transit options, shifting employee work hours, and congestion fees (such parking fees). The park staff would continue to explore a full range of these tools to offset congestion at park sites.

5. Expand the Muir Woods Shuttle

The park staff would continue to collaborate with Marin County to improve the Muir Woods shuttle service.

6. Employ Intelligent Transportation Systems (ITS)

Intelligent transportation systems use technology to improve transportation efficiency, such as electronic highway message signs with up-to-date travel information or electronic bus stop signs with up-to-the-minute information about bus arrivals. These tools help travelers better plan their trip and often help travelers choose alternative routes or modes to avoid congestion. As a result, the total distribution of travelers is spread more evenly across the system and the system functions more efficiently. Park managers would continue to work with Caltrans and other agencies to employ ITS tools to support the Muir Woods shuttle and other alternative transportation access to park sites.

7. Implement the *Marin Headlands and Fort Baker Transportation Infrastructure and Management Plan* of 2009

   Continue to implement actions that provide improved access to and within the Marin Headlands and Fort Baker for a variety of users, and to initiate these improvements in a way that minimizes impacts to the rich natural and cultural resources of the park.

8. Improve Mobility, Access, Connectivity, and Collaboration

   Mobility, access, and connectivity form the keystone of the park and monument's multimodal transportation system. Although cars will continue to be an important part of the transportation system, the park staff is committed to reducing dependence on the automobile by increasing the efficiency of other modes of travel. Creating practical transportation choices and educating the public of their viability and desirability will increase use of modes other than cars. The park staff will continue to collaborate with regional partners to achieve the vision of creating a seamless multimodal transportation system to access the park for residents and visitors in the Bay Area. This collaboration extends to applying "universal design" principles that provide access for people with disabilities.

9. Develop a Long-Range Transportation Plan

   Golden Gate National Recreation Area is developing the first park-level long-range transportation plan. An important component of this process is the creation of a list of prioritized future transportation projects, or the transportation improvement plan. Together, they would articulate the transportation priorities of the park.

   As a pilot project, the park staff would develop a model for park-level transportation planning in a manner that is consistent with state and metropolitan planning organizations. The project would provide NPS leaders with a replicable park-level transportation planning process, benchmarks for evaluating transportation projects, and park guidance for future planning and operational decisions.

TRAILS

Golden Gate National Recreation Area's trail system would continue to be managed and improved to provide an enduring system of sustainable trails. Trails provide one of the most important ways that visitors experience and enjoy the park and discover its diverse settings.

The park's extensive network of trails allows millions of people to discover the natural world and deepen their awareness of the grandeur and fragility of park landscapes and resources. Sustainably designed and maintained trails welcome public use while protecting habitat and landscape and, in some cases, are historic resources themselves. Trails can support healthy lifestyles and offer a nonmotorized way to get to the park and its destinations.

A system of ranch and military roads inherited when the park was established in 1972 was the basis for much of the current trail system. Since then, park managers, with partners and the community, have planned and completed many improvements to park trails to better serve public use and protect park resources.

Much of the trail system still requires upgrading to improve conditions, provide more sustainable alignments and to fill gaps in the system. New areas where the park is expanding, such as Rancho Corral de Tierra, a thorough evaluation and plan would be required following this general management plan to guide needed improvements.

The successful Trails Forever initiative that was launched in 2003 with a focus on the California Coastal Trail is the most current and best example of the potential of public-community collaboration to establish a network of exceptional trails. Looking beyond the trails to incorporate caring for the setting through which they travel has integrated improvements to the natural and cultural resources along trail corridors into the trail projects. This approach has expanded the benefits of the program, and its reach and has inspired an unprecedented level of volunteer support that is key to the ongoing success of the program.

Golden Gate National Recreation Area's trail system would provide a sustainable network for visitors to access, enjoy, and understand the diversity of park settings while protecting park resources. The recreation area's trails would connect communities to the park, and park sites and destinations to each other, to adjacent public lands, and to the regional network of trails.

GOALS AND MANAGEMENT STRATEGIES

1. Provide a system of trails integrated with the trail network beyond park boundaries, with coordinated regulations and supported by accurate maps and consistent signs.
2. Continue to coordinate with other agencies and organizations to complete a comprehensive regional trail system that includes the California Coastal Trail,

Bay Area Ridge Trail, San Francisco Bay Trail, and San Francisco Bay Water Trail.

3. Establish and maintain a trail system that offers a diversity of park experiences, including walking, hiking, scenery viewing, learning, horseback riding, bicycling; trails of varying lengths and loop configurations , varying degrees of challenge, access to a diversity of park settings, and opportunities for universal access where appropriate.
4. Locate, design, and maintain new or improved trails and trailheads using best practices and sustainable design to protect the park's natural and cultural resources; provide enjoyable, safe access; and reduce ongoing maintenance requirements.
5. Integrate improvements to the landscape and surrounding habitats when creating or rehabilitating trails and, where appropriate, convert former management roads to trails.
6. Create trails and trailheads that promote nonmotorized travel to and within the park, reducing the carbon footprint and supporting healthy communities.
7. Establish a coordinated system of signs to provide wayfinding information, support understanding of the park history and resources, and communicate regulations.
8. Create and support partnerships and community involvement in trail planning and ongoing stewardship, while continuing to engage the community through the Trails Forever initiative.

Marin County Trails

The Marin trail system is well established. For much of Golden Gate National Recreation Area's Marin County lands, trail improvements have been identified in recent plans and trail system improvements are ongoing. Future efforts would focus on continuing to improve existing trails, including sustainable alignments and design, improving connectivity and accessibility, and providing wayfinding signs.

San Francisco City and County Trails

The more formal trails of San Francisco lands in the planning area are the Bay Trail, the California Coastal Trail, and their connectors. Continued efforts to improve these trails would focus on sustainable design to protect park resources, address the volume of use, and improve connectivity, especially to transit and the regional trail system.

San Mateo County Trails

In established areas of the park (Mori Point, Milagra Ridge, Sweeney Ridge) future efforts would focus on continuing to improve existing trails, including sustainable alignments and design, improved connectivity and accessibility, and provision of wayfinding signs. Safe trailheads, appropriate for both local and regional visitors, would be provided. Where appropriate, former management roads would be converted to trails.

A more comprehensive approach to trail planning would be required for new areas coming into park management (Pedro Point, Rancho Corral de Tierra) and areas where trail deficiencies have not been addressed (Phleger Estate).