

4.13 WATER RESOURCES (WR) AND BIOLOGICAL RESOURCES (BR)

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WATER RESOURCES

WR-1. *Watershed Inventory and Management*

The San Francisco County Transportation Authority (SFCTA) requests that the EIS mention and accurately identify the many watersheds that drain to the Bay.

Response WR-1 – All watershed boundary and sub-watershed data currently used by the Presidio Trust are based on NPS data sets. NPS maps identify three primary watersheds and six sub-watersheds at the Presidio¹. The Draft EIS included discussion about each of these watersheds (page 129). In response to these comments, the EIS was revised to more clearly discuss these watersheds and associated subwatersheds.

Watershed planning efforts within the Tennessee Hollow watershed are already underway in collaboration with the NPS. The environmental analysis for these planning efforts will address the effects of changes in the watershed due to planning efforts. Similar analyses will be applied to future planning efforts as warranted.

WR-2. *Groundwater Resources*

The SFCTA points out that the EIS should note that groundwater occurs in Bay Mud and artificial fill, and should include the type of groundwater monitoring that will be most useful in the effort to protect subsurface hydrologic resources and function. The CCSF Planning Department comments that there is no discussion of the potential impacts on groundwater resources, either in terms of current contamination or the effects of the various alternatives on groundwater quality or quantity, and questions whether development of groundwater wells in either the Lobos or Marina groundwater basins is being considered.

¹ Mapping boundaries were developed such that several smaller drainages located in the western coastal serpentine bluffs were combined into single sub-watersheds (NPS, 2001).

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Response WR-2 – As requested, the EIS was revised to include information on groundwater occurrences. The Trust, in coordination with the NPS, is performing park-wide groundwater monitoring to evaluate and document existing groundwater conditions. In areas where groundwater has been affected by the Army's operations or disposal practices, the Trust is working with regulatory agencies to clean up the groundwater to levels that are protective of human and ecological health, and to preserve the groundwater as a potential resource. Additionally, a surface and groundwater monitoring program is underway within the Tennessee Hollow watershed to provide data necessary to support restoration design alternatives. Fifteen wells are continuously monitored to gather data, including the depths of aquifers and changes in the elevation of groundwater in response to surface water recharge.

Groundwater monitoring protocols may be designed to evaluate subsurface hydrologic resources. If potentially damaging or intrusive activities are proposed during site-specific planning, monitoring protocols would be designed to specifically address monitoring objectives. Activities could include such actions as hydrologic parameter testing, pump testing, or potentiometric testing.

Groundwater contamination caused by the Army's operations and disposal practices has been identified in a few limited areas of the Presidio. These areas are monitored under the oversight of state regulatory agencies. The Trust is careful to minimize the chances that current operations will have any negative effects on groundwater. The Trust presently has no plans to install or use wells for water supply within the Lobos Creek watershed. Additional planning and environmental review will be undertaken if well installation activities within this watershed are considered.

WR-3. Underground Parking

The NPS requests that the EIS assess the potential impact of an underground parking garage on groundwater flow.

Response WR-3 – No underground parking features outside of the 23-acre LDAC are proposed under the Final Plan. Any additional underground parking structures would be further evaluated under future site-specific planning with the appropriate level of environmental review.

WR-4. Stormwater

Various commentors request that the Trust improve the EIS assessment of stormwater impacts on the Crissy Marsh, including quantifiable information about the quality and quantity of runoff associated with levels of development contemplated by the Draft Plan and other alternatives. While Mitigation Measure NR-15 calls for monitoring runoff into the Crissy Marsh, commentors request that the EIS indicate who will conduct the monitoring, for what constituents, at what frequency, and how data will be analyzed as well as used in guiding mitigation. Commentors request that the Trust also add a program of storm drain water quality monitoring and a program to eliminate pollutant sources that could affect the Crissy Marsh. The NPS expresses concern about the increase or decrease in stormwater runoff, volume, and quality, and adequate protection of Area A resources.

Response WR-4 – In response to these comments, the Water Resources and Storm Drainage sections of the EIS were revised to articulate more clearly the Trust's commitment and strategy to ensure stormwater discharge quality protection of the marsh and other bay resources. The Trust, in coordination with the NPS, is finalizing an interim Stormwater Pollution Prevention Plan (SWPPP) that will include the sampling design and protocol, threshold requirements for constituents monitored, and a reporting mechanism. This is an interim plan that adheres to the general guidelines for stormwater management as established under the National Pollutant Discharge Elimination System (NPDES) and will remain in effect until the Trust obtains a Phase II NPDES permit. Stormwater monitoring, which will be implemented at all outfalls, will become effective in 2002. Plan implementation activities will be conducted by either Trust or NPS staff, or by contractors. Additionally, the SWPPP will include Best Management Practices (BMPs), consistent with the California Stormwater Best Management Practices Handbook, that will form the basis for a Phase II NPDES permit with the Regional Water Quality Control Board (RWQCB). BMPs include the installation of oil/water separators on discharge lines where appropriate. Separators have been installed on four discharge lines, including the E, F, and G-H drain systems that empty into the Crissy Marsh.

Stormwater quality standards will be based on the criteria identified in the interim SWPPP, and linked to the requirements set forth in the NPDES permit, regardless which EIS alternative is adopted. Therefore, an analysis

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outlining differences in potential effects to stormwater quality by alternative was not included in the EIS. The NPS is referred to the discussion on the increased demand for stormwater drainage in the Storm Drainage environmental consequences section of the Final EIS (Section 4.6.3) for an analysis of changes in anticipated stormwater flows projected for each alternative.

WR-5. Irrigation Runoff

Several commentors seek a commitment from the Trust to prevent polluted stormwater and irrigation runoff from entering any receiving waters. The Alliance for a Clean Waterfront supports a major reduction in the amount of impervious surface throughout the Presidio, reduction in volumes of landscape watering, and promotion of integrated pest management programs.

Response WR-5 – The Trust is committed to preventing pollution from stormwater and irrigation runoff from discharging into any receiving water body. In response to public comment, additional information on current and future actions the Trust will take to reduce runoff, improve water quality, and monitor the effectiveness of these actions was incorporated into the Final EIS. Also refer to Response WR-4, above.

The Trust attempts to prevent the discharge of polluted stormwater by addressing the water source before the water enters the storm sewer system. As described in the mitigation measures listed under Section 4.6.1 (Water Supply), the Trust will implement a variety of BMPs to improve irrigation efficiency throughout Area B. Also refer to the discussion of water conservation practices in Response UT-3. Additionally, the Trust landscape maintenance crews use an Integrated Pest Management (IPM) strategy² that promotes the use of preventative and non-toxic pest control methods and restricts pesticide use. Throughout Area B, biologically-based pesticides such

² The Trust's IPM strategy is guided by the IPM Action Plans for Pests at the Presidio of San Francisco, National Park Service (1996).

as citrus-based products are used as an alternative to synthetic pesticides, and compost is regularly applied as an alternative to synthetic fertilizers.

The Trust also enforces an IPM policy with park tenants, including the Presidio Golf Course. The Trust and Arnold Palmer Golf Management are developing a detailed IPM for the golf course that uses pesticide alternatives, such as "compost tea," rather than fungicides. Preliminary efforts have been successful. In 2000 and 2001, the Presidio Golf Course used 90 percent less fungicide than the average private San Francisco area golf course. In fact, in 2001, the Presidio Golf Course was recognized with the National Environmental Leadership in Golf Award by the Golf Course Superintendents Association of America.

With implementation of mitigation measures in the Final EIS, as part of future planning projects, the Trust would limit or eliminate impervious surfaces in order to reduce stormwater runoff volumes and would seek stormwater reductions runoff reductions by using on-site vegetation and landscaping as a filtration and retention system to the extent feasible. See Mitigation Measure UT-7.

WR-6. Recycled Water

Several commentors request that the EIS address the project-specific impacts of the proposed water recycling system. They urge the Trust to exert caution in applying recycled water to sensitive areas where it could alter the natural groundwater chemistry, flow characteristics, or nutrient content of native soils. They state that runoff of recycled water from ballfield irrigation, for example, should not be allowed to enter Tennessee Hollow.

Response WR-6 – The project-specific impacts of the proposed water recycling system, including effects on groundwater resources and adjacent uses, are evaluated in the Presidio Water Recycling Project Environmental Assessment (EA), which was released for public review and comment in March 2002. As described in the EA, all use of recycled water would be restricted to landscaped areas. Use of recycled water to irrigate ballfields within the Tennessee Hollow watershed is not proposed as part of the project. As part of the California state permit to operate a recycled water system for irrigation, runoff from areas irrigated with recycled water is prohibited. Stringent watering practices will help keep infiltrated water within the vadose zone and minimize water reaching the groundwater table. For additional

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discussion of the proposed water recycling system, refer to Responses UT-1, UT-4, and UT-5.

WR-7. Wetlands Protection

A number of commentors request that the Final Plan and EIS more fully address and evaluate the ecological significance of the wetland feature directly north of the Public Health Service Hospital. The U.S. Fish and Wildlife Service recommends that the Final Plan emphasize protection of the upper plateau and enhancement of soil and groundwater resources that support existing seasonal wetlands, and that the ecological significance of these wetlands be discussed in the EIS. They also recommend that any adverse impacts involving modification (by fill or drainage) of unique wetlands of the upper plateau should also be assessed. An individual urges that the remnant freshwater wetland located at the base of the western Crissy Field bluffs be expanded and restored.

Response WR-7 – In response to public comment, the Final Plan has been revised to indicate that the use of parking lot feature north of the Public Health Services Hospital would be for native plant communities consistent with the Vegetation Management Plan zoning. The EIS text has been revised to reflect this change. The analysis of impacts that could result from institutional/residential uses at the Nike Missile site north of the wetland is included in the Final EIS, and more detailed analysis will be provided during future site-specific planning efforts. Future-site specific planning will also evaluate the extent to which existing wetland features could be expanded.

WR-8. Wetlands Mapping and Policy

The NPS requests that the EIS include an updated wetlands, streams, and drainages map, and that the Trust adopt a policy of no loss of existing wetland features.

Response WR-8 – As requested, the Plan and EIS have been revised to incorporate the most recent wetland data set, consistent with the draft 2002 Presidio of San Francisco Wetland Resources Inventory. As discussed in the Final Plan, future planning efforts will pursue no net loss of existing wetland features and will incorporate watershed management principles, which include treating watersheds as complete hydrologic systems and protecting stream

processes that create habitat. Additionally, the Trust is committed to developing further details, guidelines, and policy as it undertakes site-specific planning. These will include more specific information regarding such parameters as compensatory mitigation and monitoring standards.

WR-9. Mitigation Measures

The SFCTA notes that Mitigation Measure NR-13 (Wetlands Compliance) requires compliance with existing regulations and programs, and no additional mitigation for impacts is specified.

Response WR-9 – The Trust agrees that compliance with existing regulations may not be the most appropriate form of mitigation. However, the mitigation measure being questioned (the Clean Water Act Section 404 program) includes prescriptive actions that will reduce or eliminate impacts on wetlands that fall within the definitions of mitigation (avoiding, minimizing, rectifying, reducing, compensating) in the NEPA regulations. Since these actions will be effective in addressing an identified environmental problem, the Trust chose to list them as mitigation. Also refer to Response EP-30.

WR-10. Geological Resources

The SFCTA asks if there are any other “unique geologic features” besides those identified in the Draft Plan (i.e., the Colma dunes and the bluffs south of Crissy Field and at Inspiration Point) and states that the current system may not provide for consistent protection of unique geologic resources. The agency requests that the EIS develop criteria for designating a geologic feature as “unique” and present a complete inventory of such features.

Response – The Final Plan briefly identifies some of the sensitive geologic resources found on the Presidio. These resources have been identified as “sensitive” by the NPS and Trust as they are either limited in range and size, support either rare or endangered vegetation communities, or are located along faults. (Refer to Item 17 in Appendix A of the Final EIS for a more detailed summary of the Presidio’s geology and soils.) A more detailed discussion and analysis of these resources was omitted from the EIS as it is not anticipated that there will be any measurable effects at the programmatic level of the PTMP. Future site-specific planning will include additional review to evaluate geologic and seismic hazards, impacts on sensitive

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geologic resources, and compliance with the Seismic Hazard Mapping Act. The condition of these geologic resources will be evaluated on a case-by-case basis during future site-specific planning, depending upon the extent of the planning effort and its location. Additionally, the GGNRA Natural Resources Management Plan (2001) identifies sensitive geologic resources within the Presidio. NPS staff are currently seeking funding to conduct further inventories of the Presidio's geologic resources.

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BIOLOGICAL RESOURCES

BR-1. *Natural Resources Protection*

Several commentors, including the NPS, natural resource conservation and neighborhood organizations, and individuals state that the Trust should not jeopardize the GMPA's and the Trust Act's goal of preserving and protecting the park's natural resources. Commentors request that the Trust "expand the natural beauty of the Presidio where possible," "preserve and enhance key natural resources and open space," and "include additional measures to create contiguous, biologically healthy open space."

Response BR-1 – A key principle of the Final Plan is to protect the natural resources at the Presidio and ensure their long-term health. The Trust will continue to work with the NPS to create self-sustaining ecosystems, where feasible, through restoration and management programs that include long-term community participation. To ensure integrated management across Areas A and B of the Presidio, a memorandum of agreement is being developed among the Presidio Trust, the NPS, and the Golden Gate National Parks Association (GGNPA) that will provide a framework for a collaborative natural resources program. The Trust will collaborate with the NPS to protect and enhance existing native plant communities and their remaining habitat and will increase areas of native plant habitat by up to about 130 acres. Natural habitats in the Wherry Housing area, Tennessee Hollow watershed, and Inspiration Point will be restored. Trust actions will be consistent with the objectives and zoning for native plant communities set forth in the Vegetation Management Plan (VMP), which identifies corridors and sites within the native plant communities zone proposed for restoration. Many of these areas are adjacent to existing native plant communities, where increased habitat will enhance rare or endangered plants and associated wildlife. The Trust will protect federal- and state-listed threatened and endangered species found at the Presidio. Appropriate actions will be taken to recover the species, and where possible to enhance and restore their habitats. Finally, native wildlife species and their habitats will be identified, protected, monitored and, where possible, restored. Wildlife corridors and habitat for nesting and migratory birds will be identified and enhanced. Wildlife surveys will be conducted. Activities that might disrupt sensitive wildlife habitat areas or corridors will be scheduled to reduce or avoid disturbance. Additional inventories will be conducted to identify terrestrial invertebrate and vertebrate species. Together,

these actions will identify protect, enhance, restore, and expand the Presidio's ecosystems.

BR-2. *Timing of Restoration Activities*

The NPS, California Native Plant Society and several individuals request that the Final Plan provide information on the priorities and timeline for native habitat restoration projects, and recognize the reasonable limits to the land's ability to support large-scale restoration activities. The NPS encourages early implementation of key components of the VMP, and recommends that planning efforts that restore land to its natural state take into account the annual capacity for site restoration. The NPS requests that the Final Plan establish a minimum acreage to be restored annually, and a commitment of resources to accomplish this goal. The California Native Plant Society requests that the Trust clearly state its priorities for open space enhancement during the next 10 or 15 years, and asks whether the Trust intends to restore those areas adjacent to remnant natural areas first.

Response BR-2 – A fundamental concept guiding effective implementation of the VMP is that rehabilitation and restoration occur in a gradual and continual basis. The VMP describes the proposed framework developed to guide this effort successfully, using careful management and understanding of the mosaic of dynamic vegetation resources, including ecological constraints or capacity limitations. Site-and project-based priority-setting will be conducted annually in coordination with other planning efforts, and is dependent in part on budgets, resources, and the ability to generate revenues from other Presidio resources. In 2002, a five-year implementation plan will be developed with the NPS outlining projects and timelines for restoration of the native plant community and rehabilitation of historic forest. It is anticipated that most of the native plant restoration activities occurring within Area B during the next five years will focus on environmental remediation sites, rare plant and sensitive wildlife habitat enhancement opportunities, and serpentine substrates, and will be designed to connect or expand remnant habitats where feasible. Active stewardship efforts will be maintained and, where feasible, expanded on all existing restoration sites, such as the Inspiration Point grasslands. Opportunities to provide continued feedback on VMP and open space project planning and implementation will be encouraged through annual public workshops, site walks, community meetings, and presentations.

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BR-3. Expansion of Crissy Marsh

The Crissy Marsh generated more comments than any other issue within the Draft Plan. Commentors, including almost all natural resource conservation organizations, are almost unanimous in their urging of the Trust to “commit to marsh expansion implementation to the extent necessary to ensure its ecological health and natural function.” However, several historic preservation groups, such as the California Heritage Council and the Council on America’s Military Past oppose extending the wetlands (“by as much as one square inch”) at the expense of historic resources. Those in favor of expansion give both facts (“because the Presidio is located along the Pacific Flyway ... an expanded marsh area, viable wildlife corridors and protected roosting and foraging areas will reduce the impact that increased use of the Presidio might otherwise have on these species”) and figures (“Crissy Marsh should be at least 30 acres to produce a series of connected natural open spaces”) to support their request. They ask the Trust to investigate the ecological requirements for marsh expansion independent of constraints imposed by the current land use designations, which should be considered provisional until after a study (followed by peer review and analysis of opportunities and constraints) is complete. The BCDC and others urge that the location of the possible marsh or upland habitat expansion be identified within the Final Plan. Others, like the United States Environmental Protection Agency, are more specific, and recommend the removal of the Post Exchange and Commissary buildings, or any other feasible design in either Area A or B. The Urban Watershed Project submitted a map indicating possible areas for expansion. The Native Plant Nursery recommends creating a buffer zone for Crissy Marsh and its expansion to protect the native plant community. Several commentors feel that the analysis in the EIS does not do justice to the potential impacts that the level of demolition and new construction proposed under the Draft Plan could have on the marsh.

Response BR-3 – In response to comments, the Final Plan was revised to be more specific about the Trust’s commitment to the long-term health of the Crissy Marsh and the discussion in the EIS was updated accordingly. Since release of the Draft Plan and EIS, the Trust has completed a letter of agreement with the NPS and Golden Gate National Parks Association (GGNPA) that initiated the Crissy Marsh Expansion Technical Study (Crissy Marsh Study). The letter of agreement outlines the commitment of the three signatories to work collaboratively on the study. The Crissy Marsh Study will

consider a broad array of options for ensuring the long-term ecological viability of the marsh, including expansion. The Crissy Marsh Study is a technical study. Its findings will be used to inform a subsequent planning and decision-making process that will be subject to NEPA and NHPA compliance and public review.

The Crissy Marsh Study will build on past planning efforts at Crissy Field. The study will be informed by the objectives developed during the original Crissy planning effort and identified in related reports, as well as ongoing monitoring data. The study will summarize the primary factors that threaten the long-term ecological viability of the marsh, identify a broad set of options for addressing those factors, and assess the benefits and impacts of each option using an array of criteria including but not limited to hydrologic function; ecological function; benefits/impacts to known and potential cultural and archeological resources; benefits/impacts to recreational resources, wildlife habitat (type, quantity and quality), sustainability, fundability, maintenance requirements, and costs; benefits/impacts to existing or proposed land uses; consistency with approved plans and policies; and estimated construction costs. The Crissy Marsh Study will look at potential actions within both Areas A and B of the Presidio. The Crissy Marsh Study will provide sufficient technical information to inform subsequent decision-making (subject to public review via the NEPA and NHPA processes).

With respect to the comment requesting establishment of a buffer area, the Final Plan calls for the protection and enhancement of remnant natural features in the Crissy Field (Area B) district, including natural dunes, serpentine, and riparian areas near Doyle Drive, the bluffs, the stables, and the Tennessee Hollow creek corridor. Refer to Chapter Three of the Final Plan for additional discussion of this issue.

BR-4. Moratorium on Development in Crissy Marsh Area

Commentors request that the Trust identify and protect from development an expansion area for the Crissy Marsh by not allowing long-term leases of existing structures, other uses, or new construction that will constrain or otherwise interfere with marsh expansion. The commentors recommend assignment of a special management zone where only short-term leasing could occur until future marsh expansion plans are determined.

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Response BR-4 – In response to comments, the Plan was revised and now states that, for the next two years (the estimated duration of the Crissy Marsh Study as described in Response BR-3), the Trust will not undertake any new construction or long-term leasing within the study area. Refer to Chapter One of the Final Plan for additional information.

BR-5. Tennessee Hollow Restoration

A number of commentors feel that restoration of Tennessee Hollow was not sufficiently defined in the Draft Plan, and that the riparian corridor should be fully restored. The commitment should be to restoration, not just evaluation of its feasibility (as stated in the Draft EIS). Commentors state that specific measures are necessary, including a commitment to removing landfills and housing and providing adequate setbacks. They request that no new housing construction be permitted in Tennessee Hollow. Some, like the Golden Gate Audubon Society, feel that the restoration proposal was flawed due to inappropriate surrounding uses that may impinge on those restoration efforts. The NPS requests that any development designations be delayed until the Tennessee Hollow planning process can identify the area for potential restoration.

Response BR-5 – The Final Plan includes a concept consistent with the GMPA for the restoration of the upland drainages and associated riparian corridors, including El Polin Spring, within the Tennessee Hollow watershed. The Final Plan further outlines a plan to connect a system of freshwater streams, freshwater marsh, and brackish water marsh to the bay and ocean through the restoration of Tennessee Hollow and its functioning connection to the Crissy Marsh. The plan is being prepared as a part of a coordinated effort between the Tennessee Hollow Watershed Restoration and Enhancement Project and the Crissy Marsh Study. To support this effort, a multi-organizational effort, including technical representatives from the Trust, the NPS, and the Urban Watershed Project, began watershed hydrology data collection in December 2000. In 2001, planning for Tennessee Hollow commenced with the development of a work plan, dedication of funding for planning and technical studies, and the kick-off forum with the public to provide information and receive feedback regarding of the project.

Through the planning process, many watershed issues, including infrastructure needs, resource values, restoration, visitor opportunities, environmental

remediation (i.e., landfill removal), and existing land uses, will be considered and evaluated. A range of alternatives will be developed with input from the public and subject to environmental review. The environmental document will be released for public review and comment, with the anticipated publication of the final plan projected for 2003.

The preliminary goals of the Tennessee Hollow planning effort were presented to the public during a workshop in November 2001. They include restoring a functioning stream ecosystem that contributes to the function of Crissy Marsh; improving watershed management practices; protecting and enhancing cultural and archeological resources; providing and enhancing recreational, educational, and interpretative opportunities in the watershed; and removing, relocating, or adapting existing infrastructure (housing, utilities, roads, or recreation facilities, for example) to showcase sustainable land uses within a watershed.

BR-6. Landfills and Morton Street Ballfield

Several natural resources conservation organizations support thorough cleanup of soil and groundwater contamination, removal of landfills (not merely capping) in Tennessee Hollow and throughout the park, and restoration to native habitat. Commentors request that the Trust commit to the removal of the Morton Street Ballfield within the Tennessee Hollow restoration corridor.

Response BR-6 – The Trust has proposed as its preferred remedial alternative (as part of the Presidio Main Installation Feasibility Study) the removal of Landfills 1 and 2 and Fill Site 6 from Tennessee Hollow. The remedial alternative for Landfill E will be selected by following the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) process, which is separate from the NEPA process but includes consideration of public input, as well as eight other criteria as set forth in the CERCLA regulations. The needs of the Tennessee Hollow restoration planning effort will be given due consideration in this process, and will be weighed against other relevant competing considerations and stakeholder concerns. The remedial alternative selected for Landfill E will be protective of human health and the environment and will comply with all applicable legal requirements. Placing an engineered cover over the landfill and leaving it in place with monitoring and other

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controls is one of the remedial alternatives being considered that complies with these legal requirements.

The Morton Street Ballfield is located within the east tributary of Tennessee Hollow and will be considered for possible removal as part of the Tennessee Hollow restoration planning process. The ballfield is currently leased on an interim basis. Upon expiration of the lease, and the completion of the restoration plan, a decision regarding the ballfield will be made.

BR-7. *Housing Removal in the Tennessee Hollow Watershed*

A number of commentors request that the Trust commit to no future housing construction and the removal of MacArthur housing and Buildings 808, 809, 777, 779, 1029, 1030, 230, and 231 within the Tennessee Hollow watershed.

Response BR-7 – The Trust recognizes that removing key housing units within the watershed is a critical element to establishing habitat connectivity and hydrologic function within the tributaries and associated riparian corridor. In response to public comment, the Final Plan provides more specificity regarding building demolition to accommodate open space/natural resource restoration, replacement construction, and subdivision and conversion activities. This information is provided on a planning district basis, and also includes a new figure. Refer to Chapter Two of the Final Plan and Response HO-14 for additional information on this subject. With respect to further demolition activities that could be necessary for the Tennessee Hollow restoration, this information will be addressed by the alternatives developed and refined through the public planning and environmental review process for that project.

BR-8. *Special Status Species List*

The SFCTA requests that the Trust clarify the source of the special status species list and the status of the tree lupine moth.

Response BR-8 – The sources used in compiling Tables 4 and 5 in the EIS (special status species list) are noted at the bottom of each table. The tree lupine moth has been de-listed and is therefore not included in Table 5.

BR-9. *San Francisco Owl's Clover and Isolated Wetlands*

The NPS requests that the VMP zoning be amended to protect the recently discovered San Francisco owl's clover population north of the Log Cabin in Fort Scott and isolated wetlands in these areas. The California Native Plant Society is encouraged by Trust efforts to manage the area for this species and its associates (“the flexibility demonstrates the Trust's readiness to alter land use designations in light of new information or opportunities”). The USFWS requests that the EIS discuss the significance of the owl's clover population.

Response BR-9 – The Presidio's plant populations and vegetation communities evolve dynamically both spatially and temporally, as noted in the VMP. Additionally, many have been fragmented, leaving small vestiges scattered throughout the Presidio. Because of this, it is difficult to include each new or outlier native plant resource or wetland vestige within the larger VMP native plant community zone. That, however, does not reduce the level of commitment that will be afforded to those resources. The Trust shares the NPS commitment to maximizing native plant recovery and ensuring wetland protection and, is confident that protection measures and best management practices (BMPs) identified within the Final Plan and EIS will ensure protection, and to the extent feasible, restoration of these resources. Both the Final Plan and EIS acknowledge the unique value of these resources. A planning guideline for Fort Scott states, “Restore natural resources along Dragonfly Creek and wetland and rare plant habitat northwest of the Fort Scott parade ground.” The EIS has been revised to state “...populations of both the San Francisco gumplant and San Francisco owl's clover are found in the developed sections of the Fort Scott Planning District.” BMPs will be implemented within and adjacent to these areas, and for other outlier native plant and vestige wetland resources, to protect them and their associated habitats. These BMPs will be developed such that the management of these resources will be consistent, to the extent feasible, with the objectives set forth in the VMP for the native plant community zone.

Table 4 and the Affected Environment (Section 3.3.1) of the Final EIS discuss the significance of the owl's clover.

With respect to the treatment of isolated wetlands, the Trust plans to manage all wetlands consistent with the planning principles included within the Final Plan. Future planning efforts will pursue no net loss of existing wetland

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features. Additionally the Trust is committed to developing further details, guidelines, and policy consistent with these principles as the Trust undertakes site-specific planning. The Trust will also undertake compliance steps, including obtaining any necessary permits under Clean Water Act Section 401, 402 and 404 programs when applicable. To further clarify the Trust's commitment to wetland resource protection, the EIS text was also revised to better express the application of protection measures and strategies to isolated wetland features not located within the native plant community zone of the VMP. Additional mitigation measures in the Draft EIS (notably Mitigation Measures NR-4, NR-5, and NR-6) identified actions that will further limit potential impacts on these resources.

BR-10. Impacts on Wildlife

Several commentors request that the EIS provide further assessment of the impact on wildlife species and habitat. One individual requests that the Trust provide more education to residents about pet and garbage problems, as well as reduce non-indigenous predator pressures. The NPS asks that the EIS be expanded to address the degree to which wildlife habitat values are reduced as areas are developed, and requests further assessment of effect of visitor numbers, the kinds of recreational facilities, and proximity to habitat. The NPS also questions why the Resource Consolidation Alternative will have the most beneficial effect on wildlife movement. The NPS notes that an increase in open space acreage can only be assessed as a benefit if the specific characteristics of that acreage in relation to wildlife values are assessed.

Response BR-10 – The Draft EIS provided an analysis of the direct and indirect effects on wildlife, effects on nesting habitat, and effects on wildlife movement, as well as a focused discussion on potential impacts on special status wildlife. This analysis considers and describes the relative effect of proposed use levels (i.e., visitors), building demolition, and construction under each of the PTMP alternatives. Conclusions about the impact analysis were based upon general conservation biology principles. The condition and health of any potentially affected habitat, and the benefits accrued to wildlife and wildlife movement, will be further evaluated on a case-by-case basis during future site-specific planning. Refer to Section 4.3.1 of the EIS for a detailed discussion of these issues, as well as Response WR-7, which addresses changes in the proposed land uses under Final Plan that were made in response to public comment on the EIS analysis.

The Trust concurs with the importance of resident education programs. Current outreach efforts regarding wildlife protection include the use of educational mailers and “pet agreements,” which are required for Presidio tenants with pets. An example of a recent mailer was the provision of a “trash clip” for outdoor garbage cans and an explanation of the importance in preventing wildlife access to garbage receptacles. Under Mitigation Measure NR-5, the EIS identifies further actions, including the use of interpretative materials and signage in areas where an increase in tenant/visitor use is expected and natural habitat or sensitive areas are nearby, as well as use of buffer areas and other actions to minimize the impact of human use of the park on biological resources. Also refer to Chapter One of the Final Plan.

The Resource Consolidation Alternative provides the greatest increase in contiguous open space habitats, including native plant, forested, and landscaped areas, all of which support varying levels of wildlife richness and habitat. The conclusion stated in the EIS was based primarily on the following:

- Application of conservation biology principles, including the relationship of patch size to species diversity.
- Preliminary interpretation of data indicating that forest and landscaped areas within the Presidio also provide valuable wildlife habitat.
- The fact that species are less likely to become extirpated if they are well distributed across a range, and if blocks of habitat are large and interconnected with other suitable habitat. Population persistence increases with the number and size of sub-populations.
- The understanding that the location of any new residential construction, beyond that specifically identified in the housing plan, will only occur and be evaluated after efforts to replace units in existing building are exhausted.

The Trust acknowledges the importance of continued wildlife monitoring and data collection necessary to inform future site-specific planning efforts, and is currently working with the NPS, Point Reyes Bird Observatory and Audubon Society to collect more detailed avian data. These and other pertinent monitoring efforts will continue as necessary to inform future planning. The

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Trust also recognizes the wildlife impacts caused by non-indigenous predators, and is committed to controlling wildlife pests when necessary to protect native species. The Trust is committed to increasing the amount of contiguous open space at the Presidio by restoring and enhancing native plant habitat, forests, wetlands, and drainage corridors, which will increase the amount of contiguous open space, improve wildlife habitat, and create corridors for animal movement.

BR-11. Identification of Serpentine Areas

Several commentors urge the Trust to identify and document serpentine areas. The California Native Plant Society asks that immediate efforts be undertaken to identify serpentine soils throughout the Presidio. San Francisco State University also urges that restoration efforts begin to link the two fragmented rare serpentine grassland habitats at the Presidio. One individual supports protection and ecological restoration of remnant serpentine prairie on both sides of Highway 1/Doyle Drive.

Response BR-11 – The Trust concurs that additional data collection and survey efforts will be required to help guide future long-term planning restoration priorities for serpentine communities and associated special status species recovery. To do so is a natural resource priority. Several commentors also noted that targeted soil surveys should be completed within the East Washington housing area to better delineate potential serpentine habitat that could be enhanced by strategic building demolition. The Trust will conduct studies in this region to better inform building demolition decision-making efforts.

During 2001, the Trust and NPS worked in partnership with San Francisco State University to refine soils maps necessary for serpentine grassland restoration within the Inspiration Point area. It is anticipated that future serpentine soils and outcrop mapping efforts would build upon this partnership, targeting the golf course, East Washington housing area and the remnant prairie habitat north and south of Doyle Drive. A strategy for accomplishing the first phase of this serpentine soil mapping, as well as for protecting existing prairie habitat, is currently under development, with implementation following dependent upon funding. In addition, expansion of two fragmented grassland habitat areas is currently underway. Revegetation of several acres of new habitat at Inspiration Point is in progress, and habitat

near the World War II Memorial will also be created during landfill removal activities in 2002.

BR-12. Resolving Conflicts

The USFWS requests that the EIS state, in all relevant contexts, the dual aspects of non-native trees as historic/cultural resources, and invasive alien species subject to Executive Order 13112. The California Native Plant Society asks for an analysis that recognizes conflicts between natural and cultural factors or establishes guidelines for resolving such conflicts.

Response BR-12 – The VMP is the comprehensive guide used by both the NPS and the Trust in managing Presidio vegetation. The VMP is the result of a multi-year planning, public input, and environmental review process. Inherent in the zoning established in the VMP is a recognition and understanding of the multiple resource values provided by the various vegetation types at the park – landscape vegetation, historic forest, and native plant communities (as well as the Special Management Zone set aside as a placeholder until the USFWS prepares its Final Recovery Plan for Coastal Plants of the San Francisco Peninsula). The scope of the VMP is broad and responds to an array of objectives and mitigation requirements, including balancing sometimes competing demands between rehabilitation of the non-native historic forest and the cultural landscape, and protection and management of special status plant species. In response to this comment, a footnote was added to Figure 23 of the Final EIS to reference readers to the adopted Presidio Vegetation Management Plan (VMP) for a discussion of relevant management actions for each vegetation zone within the park.

BR-13. Miscellaneous Specific Comments

The NPS and others make miscellaneous “specific” comments on biological resources impacts that are treated individually below.

- **Crissy Marsh Expansion** – The NPS requests that more assessment be focused on the potential impact on the Crissy Marsh if the expansion does not take place.

Response BR-13 – In response to the comment, the EIS was revised to include a discussion of these potential biological impacts. In general, if the marsh

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closes for a period of time, altering the marsh environment's salinity and water inundation footprint and frequency, the tidal marsh vegetation communities could be lost, and the re-introduction efforts for the federally endangered California sea-blite may be affected. Additional impacts on wildlife species will also occur if the Crissy Marsh continues to close for significant periods of time, altering the tidal marsh vegetation communities. Foraging potential, species richness, and nesting habitat will all be affected, as will the movement of aquatic invertebrates and fish. Water quality, temperature, and concentrations of suspended sediments and nutrients will all be influenced, and changes could affect reproduction of aquatic organisms. The NPS, the Trust, and the Golden Gate National Parks Association are committed to the long-term health of the marsh and are undertaking the Crissy Marsh Study to consider a number of options, including expansion of the marsh, for ensuring its long-term ecological viability. Refer to Response BR-3 for additional discussion of marsh expansion. Therefore, under the EIS alternatives these impacts are considered remote and speculative, and are only discussed under the Minimum Management Alternative.

- **Summary Table** – The NPS states that the summary table in the EIS should reflect that the No Action Alternative (GMPA 2000) will have fewer adverse biological impacts than the other alternatives. The NPS also questions some of the conclusions reached in the summary table with regard to the Sustainable Community and Cultural Destination Alternatives.

Response – In response to these and other comments, the summary table has been revised. Refer to Response EP-25 for additional discussion.

- **Short Term Impacts** – The NPS does not concur that the construction and demolition actions of the No Action Alternative (GMPA 2000) will significantly disrupt wildlife movement given the degree and effectiveness of the mitigation measures applied to reduce potential effects. The NPS requests that the EIS be corrected to state that temporary disruption could occur during demolition but that mitigation will reduce the impact.

Response – The Draft (and Final) EIS does not suggest that the No Action Alternative (GMPA 2000) will significantly disrupt wildlife movement. Section 4.3.1 of the EIS states:

“Wildlife corridors would benefit from the native plant habitat restoration and enhancement, forest restoration and wetlands and drainage corridor restoration that would occur under this alternative. At the same time, activities associated with the 1.1 million sf of demolition and 170,000 sf of new (replacement) construction, to the extent that they occur in or adjacent to wildlife corridors, could disrupt wildlife movement and migration. Intensive activities, including recreation and special events, in or adjacent to wildlife corridors, could also be disruptive. Future site-specific planning and environmental review would take into consideration and promote wildlife corridors, especially as the focus of habitat restoration activities, wherever feasible and beneficial for the resource, to reduce potential impacts.”

The Trust believes that this discussion is accurate and that no text change is needed.

- **New Construction under the No Action Alternative (GMPA 2000)** – The NPS states that the conclusion that “demolition, new replacement construction, and land uses” under the No Action Alternative (GMPA 2000) will affect native plant communities is incorrect, since there is no “replacement construction” proposed as a part of the No Action Alternative (GMPA 2000). The areas of new construction under the No Action Alternative (GMPA 2000) do not support native plant communities, so the effect will not occur.

Response – It is conceivable that unforeseen or inadvertent impacts could occur within adjacent native habitats even with the implementation of mitigation measures. The No Action Alternative (GMPA 2000) proposes 170,000 square feet of new construction. The text has been revised in the Final EIS to delete the word “replacement” from the section in question.

- **Phasing of Wherry Housing Removal** – The NPS states that the EIS should assess the degree of impact on special status plants of the longer phasing of Wherry Housing removal in the alternatives.

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Response – The Trust believes that there will be no long-term impact on special status plants. The phasing of Wherry Housing removal (one-third by 2010, one-third by 2020, and the remaining third by 2030) will enable the timely phased restoration and integration of the core habitat between the Lobos and Wherry Dune lessingia sites. The Trust has begun Section 7 consultation with the USFWS under the Endangered Species Act and has submitted a Biological Assessment that outlines the phased demolition. It is anticipated that the USFWS will provide a Biological Opinion regarding the analysis and conservation measures provided within the assessment and EIS. The Trust is also providing comments to the USFWS on the Draft Recovery Plan for Coastal Plants of the San Francisco Peninsula regarding implementation feasibility.

- **Level of Detail** – The NPS states that biological resources described in specific detail in the Affected Environment section should also be analyzed at the same level of detail in the Environmental Consequences section of the EIS.

Response – Text within the alternatives analyses describes the locations where differences occur among alternatives that could result in impacts. The analyses considered the respective acreage and habitat type or condition when information was available. Also refer to Response EP-22.

- **VMP FONSI** – The NPS states that the EIS should state that the restoration strategies and mitigation measures in the VMP were adopted by the Trust through the signing of a Finding of No Significant Impact (FONSI) by the Trust Executive Director.

Response – The text in the Final EIS was revised to reflect adoption of the VMP, which occurred after release of the Draft EIS.

- **Mitigation Measure NR-12** – The NPS requests that the intent of Mitigation Measure NR-12, which requires that “disturbance to natural habitat areas will not exceed 20 acres within any given year,” be made clear.

Response – This mitigation measure was developed to ensure both short-term and long-term protection and enhancement of natural resources from

cumulative impacts that could occur as the result of the implementation of the VMP, PTMP, environmental remediation construction, trail construction, and other planning and implementation activities on the Presidio. The intent is to reduce the amount of cumulative disturbance to natural areas that could occur at any one time, thereby reducing significant disturbance to wildlife corridors, propagule production, and other important natural resource functions.

- **Resource Consolidation Alternative** – The NPS requests that additional information be provided to support the statement that the Resource Consolidation Alternative will have the greatest beneficial effect on wetlands.

Response – The Resource Consolidation Alternative is the only alternative that calls for demolition of the Public Health Service Hospital complex and West Washington housing. Actions proposed under this alternative will reduce edge pressures and habitat fragmentation in the South Hills planning district, specifically in wetland features located north of the Public Health Service Hospital and west of West Washington housing.

- **Indirect Impacts** – An individual requests that the EIS address the impacts of subdividing housing in the South Hills planning district.

Response – Indirect impacts on native animals and wildlife habitat could include visual and noise impacts from human activities as well as trampling damage from human and pet access and predation by domestic and feral cats and dogs. The increase in the number of residents could also result in the disturbance to native plant communities and have reduced ecological benefits. These impacts were previously addressed in the Draft EIS.

- **Impacts of Recreational Uses** – An individual requests that the EIS discuss the impacts of active recreational sites on natural restoration opportunities.

Response – The Biological Resources Environmental Consequences section addresses the potential impacts from increased land use pressures including recreational uses.

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- **Reducing Biological Impacts** – The Bay Conservation and Development Commission requests that the Trust reduce building areas and specify minimum widths for wildlife corridors, buffers, and habitat areas in order to reduce biological impacts. The agency also states that additional policies should be included in the Final Plan to reduce light and noise impacts.

Response – The adopted VMP as reflected in the Final Plan establishes a native plant communities zone designed to mitigate impacts through the creation of viable ecological corridors. The VMP favors larger contiguous corridors (with fewer edges) to allow more sustainable management. Concepts of “edge” management and vegetation transition were important factors in delineating the corridors. These corridors will improve and better protect wildlife movement by linking existing remnant natural areas, creating open space buffers, and establishing connections to important habitats. The Final Plan also provides guidance for light and noise management related to sensitive wildlife and other natural resources. (Refer to Chapters One, Three and Four in the Final Plan for additional detail.)

BR-14. *Minor Text Corrections*

Several commentors recommend changes to the text of the EIS. These comments are discussed separately below.

- **Artificial Lighting** – The NPS requests that the phrase “where necessary” be deleted after “shield the use of artificial lighting.”

Response – The EIS has been revised as requested.

- **Lessingia Populations** – The USFWS requests that the EIS clarify the number of San Francisco lessingia populations or sites.

Response – As requested, the EIS has been revised to state that the Presidio populations of the San Francisco lessingia are currently located at six sites. The EIS has also been revised to better describe species-specific requirements.

- **Raven's Manzanita** – The USFWS notes that the single natural surviving individual of Raven's manzanita was rediscovered by Peter Raven in the early 1950s, and was quite mature at that time. Therefore it is considerably more than "over 30 years old."

Response – The EIS text has been revised to reflect the comment.

- **Presidio Clarkia** – An individual observes that Table 4 on page 102 of the Draft EIS incorrectly states that Presidio clarkia is found in Area A.

Response – The Trust appreciates the careful review of the EIS, and has incorporated the change.

- **Text/Table Inconsistencies** – The SFCTA observes that there are inconsistencies between text descriptions and species included in various tables. For example, species such as the salt marsh yellow throat and yellow warbler are mentioned in the text, but are not included in the appropriate table.

Response – Table 6 identifies special status marine species that may be potentially affected by activities in Area A and Area B. The three bird species were included because of human activity in foraging areas. Table 5, however, is a summary of the occurrence and potential occurrence of special status wildlife species on the Presidio. The Final EIS has been revised to include the saltmarsh yellowthroat and loggerhead shrike in Table 5.

- **Pre-Colonial Landscape** – The USFWS requests that the description of the pre-Colonial landscape of the Presidio in the EIS be revised.

Response – The Trust appreciates the careful reading of the EIS by the USFWS, and has incorporated the information provided in the USFWS comment letter in the final document.