Environmental Review Summary

Public Health Service Hospital District

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March 2003

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Plans and projects of a federal entity like the Presidio Trust (Trust) are subject to environmental review under the National Environmental Policy Act (NEPA). In August 2002, the Trust completed the Presidio Trust Management Plan (PTMP), a comprehensive land use plan for Area B of the Presidio. The Trust analyzed the general land use proposals of the PTMP in the accompanying program-level PTMP Final Environmental Impact Statement (Trust 2002c) prepared under the NEPA. Project-level environmental review of proposals within the Public Health Service Hospital (PHSH) district will "tier" from and/or supplement the analysis in the PTMP EIS as needed.[1] The PTMP EIS analyzed alternative land use concepts for the future of the Presidio, including a preference for residential and educational uses within the PHSH district.

This document summarizes the existing environmental review baseline for project proposals within the PHSH district. The Trust (or an environmental review contractor supervised by the Trust) will evaluate proposals against this baseline to determine the scope of additional review required, if any. This environmental review summary is a tool and is not a substitute for the PTMP EIS. It is offered as a way for project proponents to consider in advance of and during project planning what environmental studies, mitigation requirements, or other information may be warranted in connection with the federal NEPA process. This summary may be used to:

- assist the Trust in determining the extent of NEPA review required;
- assist project proponents in comparing existing plans and prior analysis to the specifics of their proposal; and
- allow project proponents to gain a better understanding of Trust requirements.

PHSH District Concept and EIS Assumptions

PTMP CONCEPT

The PTMP identifies the PHSH district as a "Residential and Educational Community" where some building demolition and replacement construction could occur (page 93). Land use preferences are stated for the district on page 94, and expressed in terms of a

[1] The Council on Environmental Quality (CEQ) NEPA Regulations encourage the use of tiered documents to "eliminate repetitive discussions of the same issues" (40 CFR 1502.20) and to "focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe" (40 CFR 1508.28). The PTMP EIS can be viewed at the Presidio Trust Library, 34 Graham Street, San Francisco, California.

general mix of uses (educational and residential). The PTMP calls for rehabilitation of the historic portions of the 314,000 square-foot former hospital building for residential use, and states a preference for educational uses within the bulk of remaining square footage in the district. The PTMP anticipates that the non-historic structures within the district, including the modern seven-story wings to the main hospital, could be removed (page 94). Any replacement construction would be secondary to the former hospital as the predominant building in the complex (page 97). New construction, if any, would be compatible in scale, massing, height, color and materials with the historic buildings in the area and would be consistent with the planning guidelines (pages 96 through 99). Maximum heights would be between 30 feet to 45 feet for outbuildings and 70 feet for buildings adjacent to the main hospital (page 97). There would be no net change in square footage within the district (page 94), with maximum possible new construction equal to maximum possible demolition at 130,000 sf. Remnant natural systems within the district would be preserved and enhanced. This includes wetland features and habitat for sensitive plant and wildlife species, such as the San Francisco lessingia (*Lessingia germanorum*), a federally-listed endangered plant, and the locally-scarce California Quail (*Callipepla californica*).

PTMP EIS ASSUMPTIONS

For the purposes of its analyses, the PTMP EIS assumed that the historic complex of buildings within the PHSH district would be rehabilitated according to the Secretary of Interior's Standards for the Rehabilitation of Historic Properties to accommodate new residential and educational uses (page 28). Non-historic structures, including the hospital wings, would be removed and replaced with new construction that would be used to facilitate the effective rehabilitation and reuse of historic buildings (page 28). Any new construction would occur within the constraints imposed by the PTMP, and would only occur in areas previously developed. Preservation of the integrity of the National Historic Landmark District (NHLD) status would guide what changes would be made (page 32). Open space on the upper plateau (above the building core and surrounding Battery Caulfield) would be enhanced to protect and restore important natural resources, including wetlands and habitat for sensitive plant and wildlife species and cultural resources, such as the old Marine Cemetery.[2] Deconstructed materials would be salvaged and reused to the extent possible. All new construction would be designed to be energy efficient. Other assumptions include the following:

- The large parking lot and the tennis court on the upper plateau would be removed.

[2] A significant archeological resource on the upper plateau that dates back to the 1880s.

- Remedial actions would be implemented at identified landfill sites to protect human health and the environment and expedite and enhance the beneficial reuse of the sites.

- New trails would be designed and constructed to improve bicycle and pedestrian circulation and connect the Presidio trail system to nearby outdoor recreational amenities and the existing regional trail network.

- Transportation demand management actions[3] and circulation improvements (such as reopening the 14th Avenue Gate to vehicular access and operating 14th and 15th Avenues as a one-way couplet) would be implemented to reduce traffic impacts on the surrounding neighborhood.

- Views to and from the district would be preserved and enhanced.

Environmental Resource Topics

The following summarizes environmental issues, topic by topic, as discussed in the PTMP EIS, and concentrates on issues specific to a proposed project within the PHSH district. The summary also provides updated or background information, where available, and identifies mitigation measures as required by the PTMP Record of Decision (ROD) (Trust 2002d) to avoid or minimize environmental impacts.[4]

HISTORIC ARCHITECTURAL RESOURCES AND THE CULTURAL LANDSCAPE

The potential impacts of development within the Presidio on historic resources, including the NHLD are assessed on pages 199 through 202 of the PTMP EIS. The analysis presents a discussion of proposed changes within the PHSH district including the maximum allowable new construction (130,000 sf) and demolition (130,000 sf). The analysis concludes that demolition of the non-historic front addition and wings to the main hospital and rehabilitation and restoration of the historic front façade, and rehabilitation and reuse of other historic buildings would enhance the integrity of the district and the NHLD. The non-historic wings and front addition's square footage could be replaced with buildings elsewhere within the district. New (replacement) space would be constructed within existing areas of development (e.g., within the building core on the lower plateau or Battery Caulfield on the upper plateau), and would be sited and designed to reinforce historic character-defining features of the district. New construction, if any,

[3] As discussed in the PTMP Appendix D – Transportation Demand Management Program.

[4] Refer to Attachment 1 (Mitigation Monitoring and Enforcement Program) within the Record of Decision (Trust 2002d) for a complete list of all practicable mitigation measures identified in the PTMP EIS for implementation.

would be in conformance with the PTMP Planning Principles and the PHSH Planning District Guidelines, and all physical changes would be subject to consultation pursuant to Section 106 of the National Historic Preservation Act as outlined in the Programmatic Agreement (PA).[5] The Planning Principles require that the Trust protect the historic character and the integrity of the NHLD while allowing changes that will maintain the district's vitality. The Planning District Guidelines provide guidance on spatial organization and land patterns, buildings and structures, open space, vegetation and views, and circulation and access.

The PTMP also suggests that if a suitable tenant for the main hospital building cannot be found, the building's removal and replacement could be considered subject to further analysis. However, the PTMP cautions that every reasonable effort to adapt historic properties to new uses would be made, and new construction and demolition of historic buildings would be minimized as needed to meet policy and plan objectives. The Trust would provide an opportunity for public comment before making any decision to proceed with any proposal involving substantial new construction, and any proposal that could potentially have a significant adverse effect on a historic resource. The Trust will utilize the process for consultation as stipulated in the PA to minimize adverse effects on historic resources and ensure the preservation and protection of the NHLD.

The following mitigation measures derived from the PTMP EIS would limit adverse effects on historic resources and the cultural landscape due to building removal and new construction within the PHSH district:

1. CR-1 *Documentation of Building Addition to be Removed*. Should all or some of the additions to the main hospital be removed, appropriate mitigating measures would be determined in consultation with the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation during the Section 106 consultation process. Section 106 consultation and review of rehabilitation plans for compliance with the Secretary of Interior's Standards for the Rehabilitation of Historic Properties for Rehabilitation and Investment Tax Credit projects may be accomplished within the Part I and Part II Certification process as delineated in 36 CFR Part 67.[6]

2. CR-4 *Demolition and New Construction.* The Trust would engage in a consultation process with historic preservation agencies as stipulated in the PA. The project would conform to the PTMP Planning Principles, PHSH Planning District Guidelines, and the Secretary of the Interior's Standards, in a manner that assures the preservation of the integrity of the NHLD.

[5] See PTMP EIS Appendix D – Final Programmatic Agreement

[6] A requirement for recordation is unlikely because the additions are not considered significant or historic.

3. CR-7 *Compliance with Standards for Building and Cultural Landscape Rehabilitation*. Building rehabilitation would conform to the Guidelines for Rehabilitating Buildings at the Presidio of San Francisco (ARG 1995), and the Secretary of the Interior's Standards for the Rehabilitation of Historic Properties (NPS 1992a). Historic landscape rehabilitation would also conform to the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b).

ARCHAEOLOGY

The potential impacts of development within the PHSH district on archaeology are analyzed on pages 215 through 217 of the PTMP EIS. The PTMP acknowledges that the history of the Marine Hospital and Presidio are intertwined both in the development of military reservation lands and in the provision of services to the community. As a civilian facility, the Marine Hospital provided free medical care, both short-term and convalescent, to merchant marines. While none of the buildings remain from the original 1870s complex, the site had been continuously used as a marine hospital for more than 100 years, from its 1875 opening to its closing in 1981 by the United States Public Health Service. Subsurface remains of the cemetery associated with the early history of this facility do exist, and lie largely beneath an extensive paved court and parking area located on the rise near the southwest corner of the upper plateau. Historical research suggests that a substantial cemetery once existed behind the old Marine Hospital. While records could not be found to establish that the burials of the cemetery had been relocated, the Army assumed that a relocation had taken place. In 1990 the Army conducted a test excavation in an area presumed to have been the Marine Hospital cemetery and found the remains of two burials below almost 15 feet of concrete rubble. In 2002, field investigations for environmental remediation of Landfill 8 by the Trust also encountered human remains near the ground surface (URS 2003). Historical research suggests that the remains of approximately 500 to 600 individuals are interred in the cemetery.

The PTMP EIS analysis concludes that building demolition, new construction, infrastructure upgrades, vegetation management, and native plant restoration within the district all have the potential to impact archaeological sites.

Guidelines in the PTMP and measures contained in the PA would help avoid or mitigate potential adverse impacts on sites. These include protecting and commemorating the former Marine Cemetery (PTMP, page 98), and preparing and implementing an Archaeological Management Assessment and Monitoring Program to discover, document and protect predicted sensitive archaeological areas prior to construction (Mitigation Measure CR-9 *Ground Disturbing Activities*).

GEOLOGY AND SOILS

The impact topic of geology and soils is discussed on page A-5 in Appendix A of the PTMP EIS. Two major active faults lie near the Presidio: the San Andreas (about 9 kilometers west) and the Hayward (about 16 kilometers east). Strong earthquake shaking is highly likely to result from earthquakes on the San Andreas or Hayward faults, or other more distant faults in the San Francisco Bay Area.[7] In addition, soils in the Presidio are mostly excessively drained sands, artificial fill, and other urban land (asphalt, concrete, etc.), all of which are subject to seismic ground shaking hazards to some degree. Future earthquake shaking may be exacerbated and damage intensified within these areas because the soft liquefiable sands may lose strength rapidly.[8]

The PHSH district is not located within a seismic hazard zone (California Geological Survey 1997a).[9] According to a building seismic analysis prepared for the City and County of San Francisco (Fong & Chan Architects 1990), the buildings are generally usable and in good condition, with no indication of serious structural damage to the primary structural systems from recent or past earthquakes, settlements or overloads. Damage to interior finishes and some areas of exterior cladding and deterioration from age or other causes were observed. However, neither the 1932 original hospital nor the 1952 addition meet current safety standards or conform to code requirements for seismic forces, and would require seismic upgrading (Fong & Chan Architects 1990; Architectural Resources Group 1991; SMWM et. al. 1999).

The PTMP EIS concludes that site-specific development projects would require supplemental review to evaluate geologic and seismic hazards (page A-5). Prior to building rehabilitation or replacement construction, the project development team would be required to employ a geotechnical engineer to investigate the site and recommend measures to ensure public safety given site-specific conditions. Similarly, a structural engineer would be required to provide guidance regarding necessary improvements to existing buildings and foundations. In developing measures to address seismic hazards, the Guidelines for Evaluating and Mitigating Seismic Hazards in California (California Geological Survey 1997b) should be utilized.

[7] The California Geological Survey has calculated the ground motion using probabilistic seismic hazard methods as outlined in the joint Division and U.S. Geological Survey report, Division Open-File Report 96-08. For the Design Basis Earthquake (i.e., 10 percent chance of exceedance in 50 years), ground motion is calculated to be Peak Ground Acceleration (PGA) = 0.67g. A value over 0.65g is considered "violent shaking," with the potential for "heavy" damage to structures.

[8] An investigation of slope stability at Landfill 10 is underway, and will help to determine the configuration of the parking area west of the main hospital (Trust 2003c).

[9] Defined as an area where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicates a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required (California Geological Survey 1997a).

BIOLOGICAL RESOURCES

Biological resources within the PHSH district are identified on pages 83 through 119 of the Presidio PTMP EIS and pages 94 through 95 of the PTMP. The upper plateau of the district supports unique and ecologically significant native plant communities that include coast live oak woodland, central dune scrub, and riparian and dune slack wetland vegetation, as well as the San Francisco lessingia, a federally-listed endangered plant. The complex array of vegetation also provides valuable habitat for the largest known California Quail population in San Francisco, as well as other wildlife species. As discussed in the U.S. Fish and Wildlife Service's (USFWS) Draft Recovery Plan, the dune slope immediately behind the main hospital building that currently supports a nonnative, nonhistoric stand of cypress trees serves as a buffer between the built (lower) and generally unbuilt (upper) portions of the district (USFWS 2001; Trust 2002a).

The potential impacts of development within the district are analyzed on pages 220 through 238 of the PTMP EIS, and in the USFWS Biological Opinion (2002). The analyses assumes that no construction activities (such as placement of fill material, mechanized land clearing, land leveling and road construction) would occur beyond existing developed areas and therefore existing natural habitat would not be displaced. However, at Battery Caulfield (above the Nike swale) approximately 2 acres of currently paved and disturbed area is designated for potential reuse. The precise effect of the change in land use would depend on the site-specific changes proposed. Possible secondary effects from use of this site could include potential changes in hydrology of the existing wetland, conversion of adjacent early successional native vegetation to more shrubby vegetation assemblages, and disturbance to wildlife and sensitive plant and wildlife species (page 223).

The PTMP EIS analysis indicates that future uses would be subject to the mitigation measures identified in the EIS and the "minimization measures" included in the Biological Opinion, as well as site-specific planning and environmental review that would take place prior to any substantial construction or demolition. The mitigation measures include the use of buffer areas to protect sensitive species, such as a 50-75 foot dense vegetation buffer to be established from the base of the main hospital building to prevent any potential conflicts between building operations and viable lessingia habitat on the upper plateau (Mitigation Measure NR-5 *Wildlife and Native Plant Communities* and Trust 2002).[10] Additional mitigations call for restrictions on the use of non-native invasive plant species (Mitigation Measure NR-1 *Native Plant Communities*), and implementation of best management practices (Mitigation Measure NR-6 *Best Management Practices*). Furthermore, development within Battery Caulfield would need to be consistent with the Presidio California Quail Habitat Enhancement Action Plan

[10] Additionally, this buffer would reduce the potential for lessingia establishment directly adjacent to the building.

(Trust 2002e), which identifies specific treatments for the open space surrounding the battery, such as planting native plants to create foraging areas, and removing iceplant and other nonnative species.

WETLANDS, STREAMS AND DRAINAGES

Notable water features within the PHSH district are identified on page 118 of the PTMP EIS and include a dune wetland feature on the upper plateau that supports characteristics of a dune slack wetland (shown in Figure 19 of the PTMP EIS). Its associated vegetation assemblage is the only remnant example of this vegetation type on the northern San Francisco peninsula. The potential effects of development within the PHSH district on this wetland are analyzed on page 242 of the PTMP EIS, and derive from development within Battery Caulfield. The analysis assumes that new (replacement) construction would be limited to developed areas, and concludes that development within Battery Caulfield would likely have a minimal direct impact on the existing wetland due to the site's upland and more distant location.

The PTMP EIS specifies that proposed uses of Battery Caulfield will be designed or otherwise conditioned to minimize changes in the local hydrology (Mitigation Measure NR-11 *Nike Missile Site*). In addition, BMPs and other standard drainage and vegetation protection measures would be required to help ensure the wetland system is not impacted. Management of the wetland would be consistent with the objectives set forth in the native plant community zone of the VMP.

WATER QUALITY

Water quality issues within the Presidio are discussed on page 121 of the PTMP EIS. The Presidio has implemented and is operating under the Presidio of San Francisco Stormwater Management Plan (SMP) (Dames & Moore 1994), which includes a detailed Storm Water Pollution Prevention Plan that outlines erosion prevention and sedimentation control measures used by the Presidio to avoid contamination of storm drains and surface water resources. The SMP is being updated to reflect changes in storm water routing as well as new Phase II stormwater permitting requirements. Water quality is also addressed for Lobos Creek and Mountain Lake, which are adjacent to the PHSH district.

Most of the runoff from impervious areas within the district is collected and discharged to the city's storm drain system, which conveys storm drainage out of the watershed. As noted on pages 245 and 246 of the PTMP EIS, demolition and new construction could result in indirect downstream impacts due to erosion, sedimentation, and discharges of other pollutants.

Federal and state National Pollutant Discharge Elimination System (NPDES) permit requirements would address non point-source storm water pollution issues and other potential water quality impacts. All work within the district would be performed in accordance with the SMP. As required by Mitigation Measure UT-7 *Stormwater Reduction*, proposals within the district would implement designs or measures to limit or eliminate impervious surfaces in order to reduce stormwater runoff volumes and improve water quality. The measure encourages that on-site vegetation and landscaping would be used as a filtration and retention system to the extent feasible.

Finally, the Presidio's domestic water supply permit for the water treatment plant prohibits the use of reclaimed wastewater use within the district to avoid degradation of water quality in Lobos Creek (California Department of Health Services 1997).

VISUAL RESOURCES

Visual resources within the PHSH district are discussed on page 122 of the PTMP EIS. The district is considered an important historic and contemporary vista point that provides visitors with views of the cityscape to the south, Lobos Creek to the west, and Mountain Lake to the east. The PTMP (pages 95 through 97) also notes that the "dominant" hospital building and a number of smaller buildings that face the city "present a strong image, with prominent massing and classical detailing."

The potential impacts on visual resources due to new construction within the PHSH district are analyzed on page 249 of the PTMP EIS. The analysis concludes that replacement construction would be necessarily designed and limited such that the association, feeling, and setting of the remaining elements of the visual and cultural landscape would not be severed or impaired.

New construction would conform with the PTMP Planning Principles and PHSH District Guidelines to help ensure that it would be sensitive to the prevailing architectural treatment, scale, and orientation of existing structures, and designed to reinforce the historic setting. The guidelines for the PHSH district address overall spatial organization and land patterns, buildings and structures, open space, vegetation, views, and circulation and access and include the following:

- Maintain the historic patterns of development, primarily on the lower plateau. The formal placement of buildings around open space and the definition of open space and streets through plantings should be retained. Infill construction should respect historic spatial relationships, scale and orientation of buildings (Spatial Organization and Land Patterns, page 96);

- Maintain the historic character of the complex. In concert with historic building rehabilitation, cluster additions and/or replacement construction onto compact sites, close to existing buildings, to reinforce the campus-like setting (Buildings and Structures, page 97);

- Ensure that any replacement construction is secondary to the former hospital as the predominant building in the complex (Buildings and Structures, page 97);

- Maximum heights should be between 30 feet to 45 feet for outbuildings and 70 feet for buildings adjacent to the main hospital (Buildings and Structures, page 97); and

- Preserve and enhance view corridors and panoramic viewsheds both from and to the district. Significant views include Mountain Lake from Wyman Terrace and Lobos Creek Valley from the western edge of the district, as well as sweeping views of the city and ocean from the upper plateau (Open Space/Vegetation/Views, page 99).

Further guidance is provided in the PHSH Draft Planning and Design Guidelines (Trust 2003b).

AIR QUALITY

The air quality impacts of development within the PHSH district are analyzed on pages 252 through 260 in the PTMP EIS pursuant to Bay Area Air Quality Management District guidelines (BAAQMD 1999). The analysis concludes that: 1) demolition and construction activities would create fugitive dust particulate matter that could cause adverse effects on local air quality; 2) projected motor vehicle use would not cause violations of ambient air quality standards for carbon monoxide at congested intersections such as the 14th Avenue/Lake Street intersection; and 3) housing and employment growth could induce emissions from transportation and energy demand that would be inconsistent with the assumptions in the 2000 Clean Air Plan (CAP).

Feasible BAAQMD-recommended control measures for fugitive dust particulate matter (PM10) would be required to limit adverse effects on air quality during demolition and construction activities. The Presidio Trust Transportation Demand Management Program, which consists of activities conducted by the Trust and by the park's tenants, would implement relevant transportation control measures of the CAP to reduce the number and length of vehicle trips, and thus minimize air emissions and maintain consistency with the CAP.[11] Finally, should any building demolition activities occur, an

[11] As required by Mitigation Measure NR-21 *Transportation Control Measures*.

environmentally effective approach (such as deconstruction) would be required to reduce PM10 emissions.[12]

NOISE

The noise impacts of development within the PHSH district are analyzed on pages 260 through 262 in the PTMP EIS using compatibility standards established by the City of San Francisco and the Federal Highway Administration. To assess effects in the City of San Francisco near the 15th Avenue Gate, peak hour noise levels were estimated for the gate. The analysis concluded that while traffic volumes near the gate would increase noise above background levels, the increase would not be substantial (i.e., would not exceed applicable noise abatement criteria) and would not warrant mitigation. Demolition and construction activities would create short-term impacts on the noise environment. This noise could at times be distinctive and disruptive to park users and other people within close proximity of the activity. However, a suitable buffer distance (i.e., greater than 250 feet) exists between most proposed construction activities within the PHSH district and residences within the City of San Francisco.

Mitigation Measure NR-23 *General Construction/Demolition Noise* requires that during construction, contractors and other equipment operators would be need to comply with the San Francisco Noise Ordinance (San Francisco Municipal Code, Section 2907b), which requires that each piece of powered equipment, other than impact tools, emit noise levels of not more than 80 A-weighted decibels (dBA) at 100 feet.

LAND USE

The impact of new uses within the PHSH district on the Presidio and surrounding neighborhoods is analyzed on pages 274 through 276 of the PTMP EIS. The analysis acknowledged that the reoccupation of the district as a residential and educational community would represent a "major change" in historic land use adjacent to the neighborhood, and a change in current activity levels in this area, since the hospital site has been relatively unused and vacant since 1981. However, the district would remain at the same level of development, and there would be no substantial conflicts with adjacent land uses.

Any additional noise and traffic in the vicinity due to the proposed changes in land use would be mitigated through measures identified in other relevant sections of the EIS.

[12] As required by Mitigation Measure NR-22 *Deconstruction/Demolition Techniques*.

SOCIOECONOMIC ISSUES/HOUSING SUPPLY

The impacts on housing supply from development at the Presidio were analyzed on pages 282 through 288 of the PTMP EIS. The analysis determined that employment at the Presidio would generate demand for roughly 3,000 new households in the region, of which approximately half would live in the Presidio. The PTMP EIS analysis also assumes that 200,000 square feet in the district would be in residential use, with the bulk of remaining square footage in educational use (Table 39). The PTMP (page 45) allows for an increase in the PHSH district (historically a mixed-use area that included houses and dormitories) of the number of residential accommodations, converting the 314,000 square-foot hospital to residential use, and possibly, senior housing if feasible. Planned housing retention, removal, and replacement for the PHSH district is presented in Figure 2.4 of the PTMP and below:

- Existing Dwelling/Dorm Units: 11/86 (Total 97)
- Units to be Removed or Converted to Non-Residential Use: 0-90
- New Units within Existing Buildings: 80-200
- New Units within New Construction: 0-40
- Maximum Number of New Residences: 200-210

The PTMP acknowledges that the number of planned units is given as a range that reflects general goals, and that achieving these goals would depend on site-specific assessments of building configuration and financial feasibility, as well as progress toward meeting other planning objectives (such as preserving historic buildings or providing a reliable long-term source of revenue available to the Trust). This acknowledgement is reinforced by the following text correction in the PTMP Record of Decision (August 2002) incorporated by reference and added as a footnote to Table 39 of the PTMP EIS:

> *The Final Plan Alternative states as a preference residential use of the PHSH building, which is approximately 314,000 square feet including both historic and non-historic portions. (Non-historic portions may be removed and replaced elsewhere on the site.) Residential use of the building is the Trust's preference, despite the assumption in the Final EIS analysis that only 200,000 square feet would be in residential use, with the bulk of remaining square footage in educational use. Because educational use represents a more intense use, in terms of the number of persons on site, the number of peak period automobile trips, and other considerations, the assumptions inherent in the Final EIS analysis are considered more conservative (i.e. they would generate more impacts and less revenue) than*

the preference stated in the Plan, and thus did not warrant modification between the Draft EIS and the Final EIS. Nothing in the Final EIS analysis should be construed as negating the Trust's preference for residential use of the PHSH building, and the potential educational use of auxiliary structures in the PHSH complex.

It is anticipated that project development teams will assess the configuration and feasibility of a project that meets the Trust's goals for the district. If a project proposal includes more units than are assumed in the PTMP or the PTMP EIS, the potential environmental effects of this change would need to be assessed, including effects on housing available to Presidio-based employees and the Trust's progress towards a jobs/housing balance (Mitigation Measure CO-2 *Jobs/Housing Balance Monitoring*).

SCHOOLS

The potential impacts of development within the PHSH district on public schools were analyzed on pages 288 through 292 of the PTMP EIS. The effect on schools was calculated by comparing the number of school children generated (derived from the number of residential units proposed within the district) to existing capacity within the San Francisco Unified School District. The analysis determined that minor changes in enrollment due to changes in overall Presidio occupancy would not have a significant impact because the school district could adequately provide the needed services, and continue to receive compensation through the Federal Impact Aid program. No applicable measures have been identified.

VISITOR EXPERIENCE

The potential impacts from expanded residential and educational uses at the PHSH district on the experience of park visitors[13] are analyzed on pages 292 through 296 of the PTMP EIS. The analysis assumes that a residential and educational community at the district would contribute to the vitality of the larger Presidio community, and determined that visitors would benefit from public access to portions of rehabilitated historic buildings, interpretive displays, enhanced open space (including restoration of remnant natural areas), and commemoration of the former Marine Cemetery. The Trust would facilitate educational opportunities for visitors, and support interpretive programs, events, and outreach provided by the NPT, tenants and others. The analysis concludes that these enhancements would result in beneficial impacts on visitor interpretation and education, and no project-specific mitigation measures would be necessary.

[13] Impacts on visitor experience include visitor orientation, interpretation, public access, park tenants, and events and cultural programs.

RECREATION

The impacts on recreational improvements within the PHSH district are within the scope of and adequately analyzed on pages 296 through 298 of the PTMP EIS. The analysis assumed that improvements such as new trails, including the Juan Bautista de Anza National Historic Trail, the West Pacific Mountain Lake Corridor, and the Lobos Creek Valley Trail Corridor would be designed and constructed to improve bicycle and pedestrian circulation and connect the Presidio trail system to the existing regional network in accordance with the draft Presidio Trails and Bikeways Master Plan (NPS and Trust 2002).[14] Upon completion and approval of the Presidio Trails and Bikeways Master Plan, the Trust would implement priorities for trails to enhance connections between the district and other key features of the Presidio (Mitigation Measure CO-11 *Trail Maintenance and Enhancement*).

PUBLIC SAFETY

The potential impacts due to the increased demand for law enforcement, fire protection and emergency response services resulting from an increase in resident and employee population in the Presidio is evaluated on pages 298 through 301 of the PTMP EIS. Law enforcement services at the Presidio are provided by the U.S. Park Police (USPP) San Francisco Field Office (SFFO), and fire protection and emergency medical services are provided by the NPS' Presidio Fire Department. Pursuant to an Interagency Agreement, the Trust reimburses the USPP and the NPS for the costs of providing law enforcement and fire prevention and suppression services. The analysis concludes that development within the PHSH district as a residential and educational community (including senior housing) would potentially raise the number of calls for police service, fire protection, and emergency response.

The PTMP EIS assumes that the public safety service providers would review a specific proposal against public safety service standards following tenant selection within the district and identify any appropriate increases in staff, equipment, and facilities to maintain adequate services. Costs to provide services would be reimbursed through Service District Charges.[15]

[14] In addition, the PTMP and the PTMP EIS assumed that the tennis court would be removed to expand natural habitat and enhance the cultural landscape, relocated and made available to the public at a nearby site.

[15] The Presidio is exempt from state and local property taxes. Presidio Trust tenancies are subject to a service district charge to pay for Presidio-provided services, such as fire protection, police protection, road maintenance, street lighting, off-site landscape maintenance, stormwater drainage, and emergency medical response. This charge is subject to periodic adjustment.

ROADWAY NETWORK

The potential impacts of development within the PHSH district on future traffic conditions on Presidio and city roadways were analyzed on pages 302 through 327 of the PTMP EIS. Two city streets through the residential Lake Street neighborhood in the city's Richmond District, 14th and 15th Avenues, provide the main opportunities for vehicular access. The 14th Avenue vehicular access is currently closed. Access to the district from other parts of the Presidio would continue along Battery Caulfield Road, and through traffic would be discouraged.

The PTMP and PTMP EIS assume that the 14th Avenue Gate (currently closed to vehicular access) would be reopened, and 14th and 15th Avenues would be operated as a one-way couplet, with 14th Avenue accommodating inbound traffic and the 15th Avenue Gate accommodating outbound traffic.[16] The PTMP and PTMP EIS analyze the effect of the one-way couplet operation, which minimizes traffic impacts from new uses and improves circulation and access for the district. The Trust has taken the PTMP one-way couplet concept a step further by reviewing alternative means of providing access to the district, including a no action alternative (Trust 2003a). These alternatives have been reviewed by the San Francisco Department of Parking and Traffic, since changes would primarily be required on city property.

Prior to the PTMP and the current study, three other alternatives were explored that accessed the district directly from Park Presidio Boulevard (Wilbur Smith Associates 1999). These alternatives were rejected by the Trust and Caltrans due to environmental considerations and impacts to Park Presidio Boulevard. During their review of the alternatives, Caltrans found it "difficult to see any justification for disrupting the travel of current Park Presidio Boulevard users in order to accommodate the relatively small amount of traffic generated by the proposed development, especially with existing ingress and egress that is likely to be functionally adequate to meet the traffic needs of the development" (Caltrans 1999).

The Trust currently believes, based on the analysis in the PTMP and the current draft study above, that a vehicular access plan to the district that is compatible with the district can be developed without having direct access from Park Presidio Boulevard. In addition to the one-way couplet concept, key components of the plan would be to select uses for the district that minimize traffic, further reduce traffic through aggressive transportation demand management programs (as described in Appendix D of the PTMP and required under Mitigation Measure TR-22 *TDM Program Monitoring*), and develop an internal road system that prohibits or strongly discourages through traffic (see page 99, PTMP Guidelines for Circulation and Access).

CONSTRUCTION TRAFFIC

The short-term impact of construction traffic on the roadway network due to demolition and construction activities within the PHSH district and elsewhere within the Presidio is discussed on page 321 of the PTMP EIS. Construction vehicles would include trucks hauling construction debris and delivering construction materials and supplies, as well as construction worker vehicles. The volume of construction vehicles accessing the district would vary, depending on the specific construction activity and the schedules of the various building elements of individual projects. Construction-related traffic could create some conflicts with local and regional traffic, especially from the larger construction vehicles. However, because construction vehicle trips traveling to and from the district would be dispersed, the vehicle trips on other regional roadways would not be substantial and would generally fall within the normal fluctuations of traffic.

As required by Mitigation Measure TR-26 *Construction Traffic Management Plan*, a traffic management plan would be developed prior to construction to provide specific routes and other measures to minimize potential traffic impacts.

PARKING

There are three principal parking lots within the PHSH district, located to the north, east and west of the hospital. The parking lot north of the building (currently in use by the Trust for temporary storage of landscape materials and designated for removal under the PTMP) has a capacity of 233 spaces. The parking lot on the eastern portion of the site has 37 spaces, and the parking lot on the western portion of the site (on Landfill 10) has approximately 200 spaces. In addition, there are 69 on-street parking spaces, for an estimated total of 539 spaces (Wilbur Smith Associates 1999). The PTMP (page 51) allows for parking areas to be redesigned or relocated to simplify access or to reduce visual impacts. The PTMP EIS (page 314) assumes that the number of parking spaces within the district and elsewhere within the Presidio would provide an amount five percent greater than projected average demand. Constraining supply and charging for parking would seek to limit automobile use, and would require careful planning to avoid spillover effects in the adjacent neighborhoods.

As required by Mitigation Measure TR-22 *TDM Program Monitoring* the Trust would implement a TDM Program within the district to reduce automobile usage by all tenants, occupants and visitors (see Appendix D of the PTMP for a full description). The Trust would monitor implementation and effectiveness of the TDM program on an ongoing basis. If the TDM performance standards as described are not being reached, the Trust

[16] Mitigation Measure TR-11 *14th Avenue/Lake Street Intersection Improvements* requires that when needed (i.e., prior to the intersection operations deteriorating to LOS E or F), the 15th Avenue Gate should be designated for outbound traffic, and the 14th Avenue Gate opened for inbound traffic.

would implement more aggressive TDM strategies or intensify components of the existing TDM Program, such as requiring tenant participation in more TDM program elements, and more frequent and/or extensive shuttle service.

WATER SUPPLY AND DEMAND

The potential impacts of development within the PHSH district on water demand were analyzed on pages 328 through 333 of the PTMP EIS. The Trust operates a facility that treats water from Lobos Creek to provide potable water to the park. Supplemental water is purchased from the City and County of San Francisco as needed. The proposed use of the district for 400,000 square feet for cultural/educational and residential purposes (Table 39, page 271) is taken into account in the Presidio's water demand calculations (see Appendix H of the PTMP EIS). In addition, should the main hospital building be used primarily for residential use (i.e., greater than 200,000 square feet as indicated in Table 39), water demand estimates for the district should be considered conservative, as cultural/educational and lodging uses would consume more water than residential.[17] With a new use, the PTMP EIS assumes the district would become a model of responsible water use and a demonstration site for water conservation programs.

Mitigation Measure UT-1 *Demand Management Best Management Practices* would require that Best Management Practices be implemented to encourage water conservation, including the following:

- Installing low-flush toilets, low flow showerheads, and other water-saving devices in all buildings;
- Integrating non-invasive, drought-tolerant, low-maintenance landscaping into the development areas to the extent possible to promote efficient and effective water application;
- Retrofitting landscaped areas with low-flow irrigation devices; and
- Informing tenants and residents of water conservation practices.

WASTEWATER TREATMENT AND DISPOSAL

The potential impacts of development on the wastewater treatment and disposal system were analyzed on pages 332 through 335 of the PTMP EIS. Wastewater was projected by applying a 90 percent factor to the domestic water use estimates (discussed directly

[17] Lodging and Cultural/Educational uses would demand 0.27 and 0.18 gallons per square foot per day, respectively, while residential use would demand 0.13 gallons per square foot per day (page H-1, PTMP EIS Appendix H).

above), and compared to current levels to determine impacts on the City's sanitary sewer system, which treats wastewater from the Presidio. The PTMP EIS determined that, at full occupancy including the new use at the PHSH district, the Presidio would generate less wastewater than the 1990 levels. In addition, wastewater generated from the district would be routed to the City's Oceanside Water Pollution Control Plant, which has a greater capacity to absorb wet weather flows than the City's Southeast Water Pollution Control Plant. Mitigation Measure UT-4 *Reduction of Onsite Wastewater Generation* acknowledges that water conservation practices required by Mitigation Measure UT-1 (discussed above) to minimize water usage within the district would reduce wastewater generation and flows to the City's system.

STORM DRAINAGE

The impact due to stormwater runoff within the PHSH district was assessed on pages 335 through 341 in the PTMP EIS. The assessment estimated the amount of net new construction (i.e. new construction less demolition) in the district to determine changes in permeable surfaces and thus stormwater runoff. Stormwater presently flows via the Caltrans storm line that runs along the north side of Lobos Creek and connects to the Richmond Transport Tunnel, which is part of the City's combined sewer system. The district does not experience flooding problems. The analysis determined that no additional demands or impacts on this system are anticipated because the maximum permitted buildings (up to 400,000 square feet) would not increase over existing built space and would be limited to already developed areas.

The following mitigation measure in the PTMP EIS (page 341) would require that infrastructure improvements be installed prior to new construction to minimize stormwater runoff and comply with existing water quality standards, regulatory requirements and the Trust's stormwater quality control (pollution prevention) program:

UT-7 *Stormwater Reduction.* As part of planning for future projects under the PTMP, the Trust would implement designs or measures to limit or eliminate impervious surfaces in order to reduce stormwater runoff volumes and improve water quality. The Trust would practice natural stormwater reduction by using on-site vegetation and landscaping as a filtration and retention system to the extent feasible. Grass, sand, and other porous surfaces, particularly when placed around non-porous surfaces such as asphalt, could significantly limit stormwater runoff. Projects would be reviewed to determine if stormwater flows could be limited through reduction of impervious surfaces and addition of porous surfaces.

SOLID WASTE

The impacts of demolition, construction, and rehabilitation activities at the PHSH district on the regional waste stream are analyzed on pages 341 through 344 of the PTMP EIS. These activities, including demolition of the nonhistoric hospital wings, would result in the disposal of up to 12,600 tons of debris, constituting .001 percent of the regional solid waste stream in 1999 (see Table 1 in PTMP EIS Appendix I). The PTMP EIS assumes that solid waste would be reduced through efficient resource use, recycling and reuse, and by diverting organic material from waste and purchasing products composed of recycled materials. Recycled asphalt and concrete would be used for paving where practical. Recycling bins would be available at all activity sites, and tenants would be encouraged to set aside indoor recycling areas.

Mitigation Measure UT-8 *Waste Diversion* would require implementing other cost-effective, environmentally protective alternatives to disposal of demolition debris including the following:

- Selection of contractors who understand the processes involved and are able to maximize reuse and recycling of construction and demolition materials;
- Clearing salvageable items from structures prior to demolition activities, including such items as piping, flooring, doors, windows, bathroom fixtures and kitchen fixtures, hospital equipment, heaters, and lumber;
- Removing and encapsulating contamination before demolition to minimize commingling of the wastes and to maximize reuse of the uncontaminated materials;
- Bringing down buildings piece by piece to recover the maximum amount of reusable materials; and
- Size-reducing (especially concrete) and presorting and segregating materials after demolition to increase salvage value of the recovered materials, and to decrease tipping fees for different materials in the debris; and Recycling materials on-site to lower both hauling and disposal costs.

ENERGY CONSUMPTION AND DISTRIBUTION

The PHSH district is served directly by PG&E from a 4160 circuit that ties into the Trust's PHSH switch room in the main hospital building. From the switch room, power is delivered to all of the outlying buildings.

The potential impacts of development within the PHSH district on electrical use were analyzed on pages 344 through 347. The square footage for proposed land uses within the district (provided in Table 39 on page 271) was used to project the electrical use and demand. Based on the projections in Table 3 of PTMP EIS Appendix J, up to 3.64 million kilowatt-hours of electricity would be consumed at the district annually. Should the main hospital building be used primarily for residential use (i.e., greater than 200,000 square feet as indicated in Table 39), electrical use projections for the district should be considered conservative, as residential use consume approximately half the energy (per kWh/sf) than the other specified uses (lodging and cultural/educational). The PTMP EIS assumes that the project development team would work directly with the Trust (or PG&E)[18] to upgrade the electrical system serving the district for safety and efficiency, including repair and rehabilitation of old cables, and where possible, undergrounding of overhead lines.

As required by Mitigation Measure UT-11 *Energy Conservation*, the following practices would be employed within the district to assist the Trust in meeting the goals of Executive Order 13123 and to minimize the environmental impacts of energy consumption:

- Meeting or surpassing the energy conservation requirements of California Title 24 energy code during building rehabilitation where these requirements do not conflict with historic preservation objectives;
- Carrying out cost-effective energy conservation retrofits of buildings and utility infrastructure;
- Educating tenants and visitors about energy conservation;
- Developing energy conservation and efficient energy generation demonstration projects in individual buildings;
- Participating in energy efficient appliance and computer purchasing programs; and
- Installing energy management systems in all non-residential buildings both to monitor energy use and to enable remote troubleshooting and building controls

[18] While the Trust operates and maintains the electrical distribution system at the Presidio, it is a bundled service customer of PG&E. Therefore, the development team may choose service directly from PG&E.

NATURAL GAS SUPPLY

PG&E owns and maintains the gas infrastructure on the Presidio. Currently, Building 1801 does not have any gas service and it is currently disconnected from the central boiler system. The remaining buildings within the complex are served from a centrally fired, low pressure steam system operating out of Building 1802.

The natural gas demand of Presidio-wide development is estimated on pages 347 through 350 of the PTMP EIS. The natural gas use projections in Table 56 of the PTMP EIS take into account proposed uses (by square foot) within the PHSH district as a factor for estimating future demand, which was then compared to peak demand to determine if adequate infrastructure exists to meet projected demand.[19] The PTMP EIS assumes that development within the district would adopt the principles of sustainable design and technology, and conservation measures would be practiced to minimize natural gas usage. The analysis concluded that the existing natural gas distribution infrastructure has adequate capacity to meet proposed demand. However, upgrades to the infrastructure to and within the district are likely necessary.

Implementation of Mitigation Measure UT-11 *Energy Conservation* would also reduce natural gas usage.

CUMULATIVE IMPACTS

The cumulative impacts of PHSH district and other development in the Presidio are analyzed within the PTMP EIS.[20] Table 62, which provides the context for the discussion, enumerated past, present and reasonably foreseeable actions, including projects by other agencies (NPS, USFWS and the City and County of San Francisco Planning Department), that were specifically considered in the analysis (in addition to background growth). The identified actions were chosen based on their proximity to the Presidio, their potential influence on the same resources that could be affected by implementation of the PTMP (i.e., whether the effects of these actions would be similar to those of the project), and the likelihood of their occurrence. The actions were identified by consulting with various agencies within a project impact zone (which varied for each resource) and investigating their actions in the planning, budgeting, or execution phase. In some cases, cumulative effects were also compared to appropriate national,

[19]Should the main hospital building be used primarily for residential use (i.e., greater than 200,000 square feet as indicated in Table 39), natural gas consumption within the district would be less than projected, as residential use would consume less natural gas (therms/sf) than the other specified uses (lodging and cultural/educational).

[20]Cumulative impacts result when the impacts arising from an action are added to those of other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions occurring over time (40 CFR Section 1508.7 as cited on page 363 of the PTMP EIS).

state, regional, or community goals to determine whether the total effect would be significant. In all but one resource area, the analysis in the PTMP EIS determined that cumulative impacts would not be significant and that the resources of concern would not be degraded to unacceptable levels. Cumulative air quality issues were found to be potentially significant because of contributions to regional growth (i.e., not because of localized air quality impacts). Development within the PHSH district would contribute to the referenced cumulative impacts. No mitigation measures for cumulative impacts have been previously identified.

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