

## 3.5 FLOODPLAINS, WETLANDS, AND COASTAL MANAGEMENT

This section describes the existing physical and regulatory setting related to floodplains, wetlands, and coastal management and addresses the potential effects of the EIS Alternatives related to floodplains, wetlands, and coastal management.

### 3.5.1 Affected Environment

This section describes the local floodplains, wetlands, and coastal areas in the immediate vicinity of the existing SFVAMC Fort Miley Campus and in the Mission Bay area. The local climate, hydrology, water quality, and groundwater are discussed in Section 3.8, “Hydrology and Water Quality.”

#### Floodplains

##### *SFVAMC Fort Miley Campus*

No creeks or open water bodies are located on or near the existing SFVAMC Fort Miley Campus; however, San Francisco Bay and the Pacific Ocean surround San Francisco. According to both the City and County of San Francisco’s (City’s) Interim Floodplain Maps<sup>1</sup> and the Federal Emergency Management Agency’s (FEMA) preliminary Flood Insurance Rate Map (FIRM), the Campus is not located within a flood hazard area (CCSF, 2008a).

##### *Mission Bay Area*

Coastal portions of the Mission Bay area have been mapped in the City’s Interim Floodplain Maps as part of the Special Flood Hazard Area (CCSF, 2008a). Those areas at higher risk are equivalent to FEMA Flood Zones A and V. Areas adjacent to San Francisco Bay, up to approximately 2,500 feet from the shoreline in some cases, have also been mapped as being “Lots in Hazard Area” (i.e., moderate- to low-risk areas equivalent to FEMA Flood Zones B, C, and X).

FEMA’s preliminary FIRM for the City and County of San Francisco (completed September 21, 2007) identifies special flood hazard areas within San Francisco as follows:

- *Zone A*: Areas of coastal flooding with no wave hazard; or waves less than 3 feet in height.
- *Zone V*: Areas of coastal flooding subject to the additional hazards associated with wave action.

The Mission Creek Channel, which connects to San Francisco Bay, separates Mission Bay and China Basin. The *City and County of San Francisco General Plan’s* (City General Plan’s) Community Safety Element (1997) states that flooding as a result of dam or reservoir failure is unlikely; however, if such a failure were to occur, it would most likely occur as a result of an earthquake. A Zone A area was identified surrounding the Mission Creek Channel in Mission Bay, and a Zone V area was identified along the entire shoreline of San Francisco Bay in the Mission Bay area.

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<sup>1</sup> Because the final FEMA FIRMs for the City and County of San Francisco have not been completed, the City Administrator’s Office created an interim floodplain map in July 2008.

## **Wetlands**

### ***Existing SFVAMC Fort Miley Campus***

No wetlands or waters of the United States (i.e., streams, rivers, lakes) occur on or near the existing SFVAMC Fort Miley Campus (USFWS, 2010).

### ***Mission Bay Area***

Several places in the Mission Bay area have been mapped by the U.S. Fish and Wildlife Service (USFWS) as having estuarine and marine wetlands (Figure 3.5-1). These sites are all located along San Francisco Bay and are considered waters of the United States under the Clean Water Act.

## **Coastal Management**

### ***Existing SFVAMC Fort Miley Campus***

The west side of the existing SFVAMC Fort Miley Campus is located within the California Coastal Zone, which is under the jurisdiction of the California Coastal Commission (CCC). The California Coastal Zone, which was established by the California Coastal Act, varies in width from several hundred feet in highly urbanized areas to up to 5 miles in certain rural areas of California. Offshore, the coastal zone includes a 3-mile-wide band of ocean.

### ***Mission Bay Area***

The coastal zone established by the California Coastal Act does not include San Francisco Bay. The San Francisco Bay Conservation and Development Commission (BCDC) is the federally designated State coastal management agency. This designation empowers BCDC to use the authority of the federal Coastal Zone Management Act to ensure that federal projects and activities are consistent with the policies of the *San Francisco Bay Plan* and State law. The coastal portions of the Mission Bay area are located within BCDC's area of jurisdiction, which includes the first 100 feet shoreward from the line of highest tidal action (mean high-tide line) around San Francisco Bay.

## **Regulatory Framework**

### ***Clean Water Act Section 404***

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) regulates temporary and permanent fill and disturbance of wetlands and waters of the United States. Waters of the United States are defined in the Code of Federal Regulations (CFR) (33 CFR 328.3[a], 40 CFR 230.3[s]) as follows:

- (1) All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;



Source: USFWS, 2010; data provided by SFVAMC in 2010; data compiled by AECOM in 2012

**Figure 3.5-1: Locations of Wetlands in the Mission Bay Area**

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- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including such waters:
- (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes;  
or
  - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;  
or
  - (iii) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in paragraphs (1)–(4) of this section;
- (6) The territorial seas; and
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1)–(6) of this section.

USACE (47 *Federal Register* (FR) 31810, July 22, 1982) and the U.S. Environmental Protection Agency (45 FR 85344, December 24, 1980, as amended at 58 FR 45037, August 25, 1993 ) jointly define wetlands as follows:

...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3[b]; 40 CFR 230.3[t]).

Under Section 404, the discharge (temporary or permanent) of dredged or fill material into waters of the United States, including wetlands, typically must be authorized by USACE through either the Nationwide Permit (general categories of discharges with minimal effects) or the Individual Permit.

Because there are no streams or water bodies on the existing SFVAMC Fort Miley Campus, no federal permit would be required for Alternative 1 projects or Alternative 2 near-term projects. Waters of the United States have been mapped for the Mission Bay area; therefore, a federal permit may be required for Alternative 2 long-term projects (the potential new SFVAMC Mission Bay Campus), depending on the locations of those projects. Compliance with Section 404 requirements also would be required. A Section 401 certification (or waiver) also would be required for any discharge regulated under Section 404.

### ***Executive Order 11988—Floodplain Management Act***

Executive Order 11988 was passed in 1977, in furtherance of NEPA, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973, to avoid to the extent possible the long- and short-term adverse

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impacts of the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

Agencies are to use maps prepared by the Federal Insurance Administration of FEMA (FIRMs or Flood Hazard Boundary Maps) to determine whether a proposed action is located in or would likely affect a floodplain. If no floodplain impact is identified, the action may proceed without further consideration. If the agency determines that a proposed action is located in or would affect a floodplain, a floodplain assessment must be undertaken and included in the EIS. If there is no practicable alternative to locating in or affecting the floodplain, the agency must act to minimize potential harm to the floodplain. The agency also must act to restore and preserve the natural and beneficial values of floodplains as part of the analysis of all alternatives under consideration.

Compliance with Executive Order 11988 would be required for Alternative 2 if construction would occur within the floodplain.

### ***Executive Order 11990—Protection of Wetlands***

Executive Order 11990 was passed in 1977, in furtherance of NEPA, to avoid to the extent possible the long- and short-term adverse impacts of the destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

Agencies are to use maps prepared by USFWS (National Wetlands Inventory Maps) to determine whether a proposed action is located in or would likely affect wetlands. If no wetlands impact is identified, the action may proceed without further consideration. If the agency determines that a proposed action is located in or would affect wetlands, a wetland assessment must be undertaken and included in the EIS. If there is no practicable alternative to locating in or affecting wetlands, the agency must act to minimize potential harm to the wetlands. The agency also must act to restore and preserve the natural and beneficial values of wetlands as part of the analysis of all alternatives under consideration.

Compliance with Executive Order 11990 would be required for Alternative 2 if a portion of a selected site would be built within mapped estuarine or marine wetlands.

### ***Coastal Zone Management Act***

The U.S. Congress passed the Coastal Zone Management Act (CZMA) in 1972. The CZMA, administered by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources, including the Great Lakes, and balances economic development with environmental conservation.

The CZMA outlines two national programs, the National Coastal Zone Management Program and the National Estuarine Research Reserve System. The 34 coastal programs aim to balance competing land and water issues in the coastal zone, while estuarine reserves serve as field laboratories to provide a greater understanding of estuaries and how humans affect them. The overall program objectives of CZMA remain balanced to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

Coastal states prepare coastal management programs under the CZMA. Once the federal government approves a state's coastal management program, that state gains federal consistency-review authority. California's Coastal Management Program, federally approved in 1977, designates two coastal zone management agencies to implement the federal consistency provisions: (1) CCC for all coastal areas outside San Francisco Bay; and (2) BCDC for the coastal areas along San Francisco Bay. CCC's mission is to "Protect, conserve, restore, and enhance environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations." BCDC has jurisdiction over the open water, marshes, and mudflats of greater San Francisco Bay, including Suisun, San Pablo, Honker, Richardson, San Rafael, San Leandro, and Grizzly Bays and the Carquinez Strait, as well as the first 100 feet inland from the shoreline around San Francisco Bay. BCDC's mission statement states that BCDC "is dedicated to the protection and enhancement of San Francisco Bay and to the encouragement of the Bay's responsible use." Any portion of the Mission Bay area located within 100 feet from the San Francisco Bay shoreline is subject to the CZMA.

### ***National Flood Insurance Program and Flood Disaster Protection Act***

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 were enacted to reduce the need for flood protection structures and to limit disaster relief costs by restricting development in floodplains. FEMA, created in 1979, is responsible for predicting hazards related to flooding events and forecasting the level of inundation under various conditions. As part of its duty to develop standards for delineating fluvial and coastal floodplains, FEMA provides information about flood hazard and inundation potential on FIRMs, and where appropriate, designates regions as special flood hazard areas. Special flood hazard areas are defined as areas that have a 1 percent chance of flooding in a given year. FEMA released a preliminary FIRM for the City and County of San Francisco on September 21, 2007, for review and technical comment only, and to provide the City with a tool for implementing a floodplain management program. FEMA is conducting a more detailed analysis of flood hazards associated with San Francisco Bay and will provide the City with a revised preliminary map based on that analysis sometime in 2012 (OCA, 2011).

FEMA also administers the National Flood Insurance Program (NFIP), a federal program that enables property owners in participating communities to purchase insurance as protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. The City applied to FEMA to join the NFIP in fall 2008; FEMA approved the application for participation in April 2010. The NFIP requirements are relevant because preliminary FEMA flood zones may be established in the Mission Bay area where portions of Alternative 2 could be located.

### ***San Francisco Floodplain Management Ordinance***

Even though the San Francisco Floodplain Management Ordinance is not a federal requirement, it was adopted based on the fact that FEMA has not yet published a final FIRM for areas located within the City and County of San Francisco. Thus, this local floodplain management ordinance is applicable to the alternatives analyzed in this EIS.

The San Francisco Board of Supervisors adopted the Floodplain Management Ordinance (Ordinance No. 188-08) as a condition of the City joining the NFIP. The ordinance requires that new or substantially improved structures located in special flood hazard areas be protected against flood damage, and prohibits uses that would increase flood risks (CCSF, 2008b). In general, the Floodplain Management Ordinance requires that the first floor of

structures in flood zones be constructed above the floodplain or be flood-proofed. The ordinance also incorporates FEMA's more stringent floodplain management requirements, which must be applied in areas where FIRMs show base flood elevations. If portions of Alternative 2 were to be located within flood hazard areas in the Mission Bay area, the Floodplain Management Ordinance would be applicable.

### ***San Francisco Waterfront Special Area Plan***

The *San Francisco Waterfront Special Area Plan* (Special Area Plan), last amended in February 2010, contains both general and geography-specific policies to facilitate nonmaritime, maritime, commercial, and recreational shoreline development along the San Francisco waterfront. The area covered by the Special Area Plan is the land and water area located along the existing shoreline of the City and County of San Francisco from the Hyde Street Pier through the India Basin, including all areas within the jurisdiction of the Port of San Francisco. If portions of Alternative 2 were to be located within the area covered by the Special Area Plan, the Special Area Plan would be applicable. The policies contained in the Special Area Plan also apply to areas within BCDC jurisdiction for permit purposes and are the basis for BCDC permit decisions and for federal consistency review under the federal Coastal Zone Management Act of 1972, as amended.

### ***Port of San Francisco Waterfront Land Use Plan***

The *Port of San Francisco Waterfront Land Use Plan* (Waterfront Land Use Plan), adopted by the Port Commission in 1997, governs land use policy for waterfront lands under jurisdiction of the Port of San Francisco, a 7½-mile band that extends from Fisherman's Wharf to India Basin. The Waterfront Land Use Plan is intended to serve as a balanced and implementable land use plan for the use and development of the Port of San Francisco's waterfront. Since the Port Commission's adoption of the plan in 1997, the City has approved amendments to the City General Plan and City Planning Code to allow project implementation consistent with the Waterfront Land Use Plan. In addition, amendments to BCDC's plans and policies were adopted. If portions of Alternative 2 were to be located within the area covered by the Waterfront Land Use Plan, the Waterfront Land Use Plan would be applicable.

## **3.5.2 Environmental Consequences**

### **Significance Criteria**

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by, or result from, the proposed project and alternatives.

An alternative would be considered to result in an adverse impact related to floodplains, wetlands, and coastal management if it would:

- result in substantive undesirable flooding impacts as a result of location within a floodplain;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or

- have a substantial adverse effect, either directly or indirectly, on coastal resources through increased erosion or water quality degradation.

### **Assessment Methods**

The aforementioned significance criteria were applied to determine impact significance using a qualitative approach. Specifically, the following is a discussion of impacts associated with potential wetland or coastal resource alterations and flooding hazards in the floodplain, as well as conformance with applicable regulatory standards for the construction and operation of the SFVAMC LRDP.

### **Alternative 1: SFVAMC Fort Miley Campus Buildout Alternative**

#### ***Near-Term Projects***

##### **Construction**

###### *Wetlands Alteration*

There are no wetlands or waters of the United States on or near the existing SFVAMC Fort Miley Campus that could be disturbed. As a result, no construction-related wetlands impact would result from implementation of near-term projects under Alternative 1.

###### *Degradation of Coastal Resources*

As defined in Section 304 of the federal Coastal Zone Management Act of 1972, the term “coastal zone” does not include “lands the use of which is by law subject solely to the discretion of or which is held in trust by the federal government.” The existing SFVAMC Fort Miley Campus is within federal reservation and is wholly owned and operated by VA, and therefore is excluded from the coastal zone. However, VA recognizes that actions outside the coastal zone may affect land or water uses or natural resources along the coast and therefore are subject to the provisions of the Coastal Zone Management Act.

A portion of the existing SFVAMC Fort Miley Campus is located within the Coastal Zone Management Area; however, near-term construction-related impacts of Alternative 1 would be minimal and would not be expected to affect any coastal use or resource. Coastal management as it relates to erosion and flooding is discussed below. For a discussion of construction-related impacts of near-term projects as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, “Aesthetics”; Section 3.13, “Transportation and Parking”; and Section 3.15, “Wildlife and Habitat.”

Near-term projects under Alternative 1 would not directly discharge runoff to the Pacific Ocean. As described in Section 3.8, “Hydrology and Water Quality,” Alternative 1 would be required to comply with the requirements of Article 4.1 of the San Francisco Public Works Code, which regulates the quantity and quality of discharges to the combined sewer system. A storm water pollution prevention plan (SWPPP) would be prepared to reduce project-related pollution of surface water throughout the construction period. Most stormwater runoff from the project site would also be collected and treated at the Oceanside Water Pollution Control Plant before discharge to the Pacific Ocean, and therefore would meet the effluent discharge limitations set by the plant’s National Pollutant Discharge

Elimination System Permit. For stormwater that discharges to the small separate storm drainage system on the north side of the existing SFVAMC Fort Miley Campus along the north-facing slope, the project would be required to obtain coverage under the Construction General Permit (Order 2009-0009-DWQ), which requires the development and implementation of a SWPPP.

With preparation and implementation of SWPPPs, compliance with required permits, and implementation of VA Specification Section 015719, "Temporary Environmental Controls," construction-related water quality impacts on the Pacific Ocean would be minor. For additional discussion of coastal water quality considerations during construction of near-term projects for Alternative 1, see Section 3.8, "Hydrology and Water Quality."

### **Operation**

#### *Flooding as a Result of Location within a Floodplain*

Because the existing SFVAMC Fort Miley Campus is not situated within a designated floodplain, no flooding impact would result from location of near-term projects within a floodplain. See Section 3.8, "Hydrology and Water Quality," for a discussion of runoff and flooding.

#### *Wetlands Alteration*

Because no wetlands or waters of the United States that could be disturbed are located on or near the existing SFVAMC Fort Miley Campus, no impact related to wetlands alteration would result from implementation of near-term projects.

#### *Degradation of Coastal Resources*

Although a portion of the project site is located within the Coastal Zone Management Area, operational impacts of Alternative 1 near-term projects would be minimal. An increase in total or peak runoff volume from the site relative to existing conditions could contribute to the frequency or severity of combined sewer overflow (CSO) events discharged to the Pacific Ocean. Implementing Alternative 1 near-term projects is anticipated to result in a maximum increase in impervious area of approximately 1.34 acres (a 5 percent increase in impervious area compared to existing conditions) on the existing SFVAMC Fort Miley Campus. Implementing these projects would result in minimal alterations to the site's runoff conditions because the projects would occur within the existing development footprint of the Campus, primarily on existing impervious sites (i.e., existing paved parking areas and buildings).

As described in Section 3.8, "Hydrology and Water Quality," implementing Mitigation Measure HYD-1 at the existing SFVAMC Fort Miley Campus would ensure proper sizing of infrastructure to handle stormwater and wastewater flows to protect from down-gradient flooding hazards that could affect the coastal zone. In addition, the use of Low Impact Development (LID) techniques to infiltrate, evaporate, and detain stormwater would be required to comply with Section 438 of the federal Energy Independence and Security Act and Article 4.2 of the San Francisco Public Works Code and would ensure maintenance of predevelopment stormwater runoff conditions. Thus, implementing Alternative 1 near-term projects would not contribute to the frequency or severity of CSO events and/or downstream flooding. This impact would be minor.

For a discussion of operational impacts of near-term projects as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, “Aesthetics”; Section 3.13, “Transportation and Parking”; and Section 3.15, “Wildlife and Habitat.”

### ***Long-Term Projects***

#### **Construction**

##### *Wetlands Alteration*

There are no wetlands or waters of the United States on or near the existing SFVAMC Fort Miley Campus that could be disturbed. As a result, no construction-related wetlands impact would result from implementation of long-term projects under Alternative 1.

##### *Degradation of Coastal Resources*

Similar to the impacts of Alternative 1 near-term projects, although a portion of the site is located within the Coastal Zone Management Area, long-term construction-related impacts under Alternative 1 would be minimal. Through compliance with the requirements of Article 4.1 of the San Francisco Public Works Code, preparation and implementation of SWPPPs, compliance with required permits, and implementation of VA Specification Section 015719, “Temporary Environmental Controls,” construction-related water quality impacts on the Pacific Ocean would be minor. For additional discussion of coastal water quality considerations during construction of long-term projects for Alternative 1, see Section 3.8, “Hydrology and Water Quality.”

For a discussion of construction-related impacts of long-term projects as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, “Aesthetics”; Section 3.13, “Transportation and Parking”; and Section 3.15, “Wildlife and Habitat.”

#### **Operation**

##### *Flooding as a Result of Location within a Floodplain*

Because the existing SFVAMC Fort Miley Campus is not situated within a designated floodplain, no flooding impact would result from location of near-term projects within a floodplain. See Section 3.8, “Hydrology and Water Quality,” for a discussion of runoff and flooding.

##### *Wetlands Alteration*

Because no wetlands or waters of the United States that could be disturbed are located on or near the existing SFVAMC Fort Miley Campus, no impact would result from implementation of long-term projects.

##### *Degradation of Coastal Resources*

Implementing Alternative 1 long-term projects is anticipated to result in a maximum increase in impervious area of approximately 0.25 acre (a 1 percent increase in impervious area compared to existing conditions) on the existing SFVAMC Fort Miley Campus. Similar to the impacts of Alternative 1 near-term projects, implementing

Alternative 1 long-term projects would result in minimal alterations to the site's runoff conditions because the projects would occur within the existing development footprint of the Campus, primarily on existing impervious sites (i.e., existing paved parking areas and buildings).

As described in Section 3.8, "Hydrology and Water Quality," implementing Mitigation Measure HYD-1 at the existing SFVAMC Fort Miley Campus would ensure proper sizing of infrastructure to handle stormwater and wastewater flows to protect from down-gradient flooding hazards that could affect the coastal zone. In addition, the use of LID techniques to infiltrate, evaporate, and detain stormwater would be required to comply with Section 438 of the federal Energy Independence and Security Act and would ensure maintenance of predevelopment stormwater runoff conditions. Thus, implementing Alternative 1 long-term projects would not contribute to the frequency or severity of CSO events and/or downstream flooding. This impact would be minor.

For additional discussion of coastal water quality considerations during operation of long-term projects for Alternative 1, see Section 3.8, "Hydrology and Water Quality." For a discussion of operational impacts of long-term projects as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, "Aesthetics"; Section 3.13, "Transportation and Parking"; and Section 3.15, "Wildlife and Habitat."

## **Alternative 2: SFVAMC Fort Miley Campus plus Mission Bay Campus Alternative**

### ***Near-Term Projects***

Alternative 2 near-term projects (both construction and operation) would be the same as Alternative 1 near-term projects (see Tables 2-1 and 2-2 and Figures 2-1 and 2-2). Therefore, the impacts of Alternative 2 near-term projects would be the same as the impacts of Alternative 1 near-term projects. These impacts would range in significance from no impact to minor with mitigation (Mitigation Measure HYD-1).

### ***Long-Term Projects***

Alternative 2 long-term projects (both construction and operation) at the existing SFVAMC Fort Miley Campus would be the same as Alternative 1 long-term projects, except that the ambulatory care center would be located at the potential new SFVAMC Mission Bay Campus under Alternative 2 (see Tables 2-1 and 2-2 and Figures 2-1 and 2-2). Therefore, the impacts of Alternative 2 long-term projects at the existing Campus would be the same as or less than the impacts of Alternative 1 long-term projects. The impact discussion below focuses on the impacts that may result from construction and operation of the ambulatory care center, research building, and associated parking structures at the potential new Campus, as proposed as part of Alternative 2, Phase 2.

### **Construction**

#### ***Wetlands Alteration***

Several locations in the Mission Bay area along San Francisco Bay have been mapped by USFWS as having estuarine and marine wetlands (Figure 3.5-1). Because the precise location of the potential new SFVAMC Mission Bay Campus is unknown at this time, development of the long-term projects under Alternative 2 within the Mission Bay area could result in adverse impacts on estuarine and marine wetlands. If Alternative 2 long-term

projects were to be implemented within or near wetlands, compliance with Article 4.1 of the San Francisco Public Works Code, compliance with VA Specification Section 015719, “Temporary Environmental Controls,” and implementation of SWPPPs would reduce construction-related wetland impacts to a minor level. If wetlands were to appear to be present within a proposed site, a qualified wetland biologist would conduct a wetlands assessment in compliance with Executive Order 11990, to determine the quantity and type that would be avoided or mitigated as part of a future project-level NEPA review.

#### *Degradation of Coastal Resources*

Because the precise location of the long-term projects under Alternative 2 at the potential new SFVAMC Mission Bay Campus is unknown at this time, development of projects within the Mission Bay area has the potential to result in adverse coastal management impacts. If development under Alternative 2 were to occur on a site situated within 100 feet of San Francisco Bay, a consistency determination would be obtained from BCDC before commencement of construction and the construction contractor would attempt to avoid the BCDC jurisdictional line. If development were to be proposed along the water’s edge of San Francisco Bay, an application would be submitted to BCDC for approval if any of the actions listed below would need to occur:

- placing solid material, building or repairing docks or pile-supported or cantilevered structures, disposing of material, or mooring a vessel for a long period in San Francisco Bay or in certain tributaries that flow into the bay;
- dredging or extracting material from the bay bottom;
- substantially changing the use of any structure or area;
- constructing, remodeling, or repairing a structure; or
- subdividing property or grading land.

Through assumed compliance with the BCDC permit application and permitting requirements, impacts on coastal management would be minor.

For a discussion of construction impacts of Alternative 2 long-term projects as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, “Aesthetics”; Section 3.13, “Transportation and Parking”; and Section 3.15, “Wildlife and Habitat.”

#### **Operation**

##### *Flooding as a Result of Location within a Floodplain*

Long-term projects under Alternative 2 may be implemented in areas mapped as special flood hazard areas if they would be located along the shoreline of San Francisco Bay. If Alternative 2 long-term projects would be situated within a special flood hazard area, project components would be required to comply with the requirements of the San Francisco Floodplain Management Ordinance. Specifically, the first floor of structures would have to be located above the floodplain or be flood-proofed. Through assumed compliance with the requirements of the Floodplain Management Ordinance, the flooding impact resulting from potential location within a floodplain would be minor.

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*Wetlands Alteration*

Several locations in the Mission Bay area along San Francisco Bay have been mapped by USFWS as having estuarine and marine wetlands. The precise location of the long-term projects under Alternative 2 is unknown at this time; therefore, as discussed in Section 3.8 “Hydrology and Water Quality,” implementing Alternative 2 may result in adverse impacts on nearby estuarine and marine wetlands through downstream flooding or an increase in the frequency or severity of CSO events. However, implementing Mitigation Measure HYD-1 at the potential new SFVAMC Mission Bay Campus would ensure proper sizing of infrastructure to handle stormwater and wastewater flows to protect from down-gradient flooding hazards. In addition, the use of LID or other techniques described in Mitigation Measure HYD-1 to infiltrate, evaporate, and detain stormwater would ensure maintenance of predevelopment stormwater runoff conditions. Thus, with implementation of Mitigation Measure HYD-1, Alternative 2 would not substantially contribute to the frequency or severity of CSO events and/or downstream flooding. Implementing this mitigation measure would reduce operational wetland impacts to a minor level.

*Degradation of Coastal Resources*

Through assumed compliance with the BCDC permit application and permitting requirements, impacts of Alternative 2 long-term projects related to coastal management would be minor.

For a discussion of operational impacts of Alternative 2 as they relate to additional coastal management topics, including scenic resources and views, parking and coastal access, and habitat, see Section 3.1, “Aesthetics”; Section 3.13, “Transportation and Parking”; and Section 3.15, “Wildlife and Habitat.”

**Alternative 3: No Action Alternative***Near-Term Projects**Construction*

Under Alternative 3, there would be no new construction or retrofitting of existing buildings. Therefore, no construction-related wetlands or coastal management impacts would occur.

*Operation*

Under Alternative 3, the LRDP would not be implemented. Therefore, no operational flooding, wetlands, or coastal management impacts would occur.

*Long-Term Projects**Construction*

Under Alternative 3, there would be no new construction or retrofitting of existing buildings. Therefore, no construction-related wetlands or coastal management impacts would occur.

**Operation**

Under Alternative 3, the LRDP would not be implemented. Therefore, no operational flooding, wetlands, or coastal management impacts would occur.

**3.5.3 References**

City and County of San Francisco (CCSF). 2008a. San Francisco Floodplain Management Program: San Francisco's Interim Floodplain Maps, July 2008. Available: <<http://sfgsa.org/index.aspx?page=828>>. Accessed February 7, 2011.

———. 2008b. San Francisco Floodplain Management Program: Floodplain Management Ordinance, Legislative Ordinance–2008. Ordinance No. 188-08, June 5, 2008. Available: <<http://sfgsa.org/index.aspx?page=828>>. Accessed February 7, 2011.

Office of the City Administrator (OCA). 2011. *San Francisco Floodplain Management Program Fact Sheet*. San Francisco, CA. Available: <<http://sfgsa.org/Modules/ShowDocument.aspx?documentid=7520>>. Accessed February 8, 2011.

U.S. Fish and Wildlife Service (USFWS). 2010. National Wetlands Inventory: Wetlands Mapper. Last updated October 1, 2010. Available: <<http://www.fws.gov/wetlands/data/mapper.html>>. Accessed February 7, 2011.