

3.4 CULTURAL RESOURCES

This section describes the historical setting and the physical and regulatory framework related to paleontological, archaeological, and historic resources, and addresses the potential effects of the EIS Alternatives on such resources.

3.4.1 Affected Environment

Methodology for Assessment of Existing Conditions

AECOM conducted a cultural resources investigation for the project area that consisted of prefield research, a review of existing information, and a field reconnaissance visit of the existing SFVAMC Fort Miley Campus. The results of this investigation are summarized later in this section.

Cultural and Historical Contexts

Paleontological Resources

Regional Setting

Geologic history and conditions are relevant to the evaluation of paleontological resources because they influence the type of fossils that may be found (i.e., aquatic vs. terrestrial organisms) and the probability that any prehistoric remains would be subject to fossilization rather than normal decay. The existing SFVAMC Fort Miley Campus and the Mission Bay area are located within the Coast Range Geomorphic Province, which is composed of a series of northwest-trending ranges separated by parallel river valleys. Topography in the project region is structurally controlled by the San Andreas fault system. The Coast Ranges were formed when fragments of Mesozoic and early Cenozoic rocks that were originally part of oceanic plates were fused with the North American plate where the two plates met.

Existing Fort Miley Campus

The SFVAMC Fort Miley Campus is located within the San Francisco North U.S. Geological Survey (USGS) 7.5-Minute Quadrangle. Based on a review of geotechnical reports prepared by Treadwell & Rollo (2010) and ENGeo (2008), and on a review of the Geologic Map of the San Francisco–San Jose Quadrangle (Wagner et al., 1991), the existing Campus is underlain by Artificial Fill, Dune Sand, and the Franciscan Assemblage. These geologic formations are discussed in greater detail below.

Artificial fill at the SFVAMC Fort Miley Campus consists of silty and clayey sand and stiff sandy clay of Holocene age (i.e., 11,000 years Before Present [B.P.¹] and younger).

The San Francisco sand dunes originate from a combination of ocean waves that cause sand to accumulate, and wind that blows the sand inland. As the sand grains are trapped by obstacles such as vegetation and pebbles, they

¹ “BP” = Before Present. By convention, “Present” is defined as 1950 A.D. The year 1950 A.D. is the baseline date from which ages of certain materials are calculated when using carbon-14 dating techniques. “A.D.” refers to the number of years after the death of Jesus Christ.

begin to accumulate and dunes begin to form. Sand dunes at the existing SFVAMC Fort Miley Campus are of Holocene age.

The Mesozoic-age (i.e., approximately 248–65 million years B.P.) Franciscan Assemblage consists primarily of greywacke sandstone and shale, as well as chert, basalt, and minor amounts of limestone, greenstone, and serpentinite. Within the Central Belt of the Franciscan Assemblage, where the SFVAMC Fort Miley Campus is located, the Franciscan forms a discontinuous jumble of rocks, resting within a matrix of sheared mudstone.

Mission Bay Area

The Mission Bay area is located within the San Francisco North USGS 7.5-Minute Quadrangle. Based on a review of the Geologic Map of the San Francisco–San Jose Quadrangle (Wagner et al., 1991), the Mission Bay area is underlain by Alluvium, Artificial Fill, Dune Sand, and the Franciscan Assemblage (sandstone, shale, conglomerate, and serpentinitized² ultramafic³ rock). These geologic formations are discussed in greater detail below.

Alluvium under the Mission Bay area consists of unconsolidated stream and basin deposits ranging from very small to boulder size; it is of Holocene age. Artificial Fill is also of Holocene age and consists of nonnative materials placed at the edge of San Francisco Bay to raise the land surface above sea level. Dune Sand in the Mission Bay area is of Holocene age as well; its origin is discussed above.

The Franciscan Assemblage outcrops at the surface in two areas of the Mission Bay area. Immediately adjacent to the San Francisco–Oakland Bay Bridge (Bay Bridge), it is composed primarily of sandstone, shale, and conglomerate of marine origin and is Cretaceous in age (i.e., approximately 144–65 million years B.P.). Southwest of the Bay Bridge, between Interstate 80/U.S. Highway 101 and Interstate 280, this formation outcrops as serpentinitized ultramafic rocks of Jurassic age (i.e., approximately 206–144 million years B.P.). In addition to these two surface outcrops, the Franciscan Assemblage underlies at depth all of the other three formations described above.

Archaeological Resources

Existing Fort Miley Campus

Very few archaeological sites identified in the San Francisco Bay Area predate the Middle Archaic Period (5000–2500 B.P.), but there exists an abundance of information regarding this and the subsequent Upper Archaic (2500–1300 B.P.) and Emergent Periods (1300–200 B.P.). No such sites have been directly identified within the existing SFVAMC Fort Miley Campus, and the prehistory of the specific Campus location is not presently known. Because archaeological sites have been found in the immediate area, however, the character and nature of early Native American occupation of the Campus and surrounding region can be surmised.

The Middle Archaic Period in the San Francisco Bay Area was characterized by more diversified economies than previous periods. Site-specific and intensive resource procurement, possible increased reliance on acorn harvesting and processing, and population growth help define this time. During the Upper Archaic Period,

² Serpentinization is the process that changes rocks by a process of water, heat, and pressure.

³ Ultramafic rocks are rocks formed from magma and contain minerals that are dark and contain high levels of magnesium and iron.

permanent villages began to develop (particularly near principal waterways), and social status distinctions were more pronounced. Formalized and sustained trade between recognized groups also developed during this period. In the Emergent Period (as populations increased as a result of intensive localized resource procurement) territorial boundaries became better established. Social status was often based on individual wealth, and exchange systems between individuals and groups were more complex.

Mission Bay Area

Research conducted to describe the regional archaeological setting as presented for the existing SFVAMC Fort Miley Campus (above) focused on San Francisco and Bay Area archaeological resources as summarized by Fredrickson (1974) and Moratto (1984). The same description of the regional archaeological setting applies to the Mission Bay area.

Historic Resources

Regional Context

The earliest documented Euro-American arrived in 1776 in what is now San Francisco when a Spanish exploring party led by Juan Bautista de Anza arrived in the area to locate sites for a presidio (military base) and the Mission Dolores. By 1836, the small settlement of Yerba Buena sprang up between the Presidio of San Francisco and the Mission Dolores. In 1847, Yerba Buena became known as San Francisco, and its primary function served as a shipping and transportation hub.

The Gold Rush of 1849 transformed the small shipping community virtually overnight into a booming city. Within 1 year San Francisco's population exploded from 500 to 25,000. The City continued to grow at a brisk pace over the next few decades, as the population steadily increased from less than 150,000 in 1870 to 342,000 by 1900. By the early 1900s, despite a devastating earthquake and fire, San Francisco boasted a population of 350,000 and served as a major port and financial center on the West Coast, a position it enjoys well into the 21st century (Kyle et al., 1990).

As the City's prominence grew, so did the need to defend it and the surrounding region. As a result, several fortifications were constructed in the area, including Fort Miley. Fort Miley was a coastal artillery battery that the U.S. Army constructed in the late 19th century to protect the City from potential naval attacks. In 1850, after California's entry into the United States, President Millard Fillmore reserved the land composing Fort Miley for its strategic value overlooking the entrance of the San Francisco Bay. It remained relatively unused until the 1860s, when the City purchased 200 acres (including the site of the future Fort Miley) for the municipal Golden Gate Cemetery (also known as the City Cemetery Reservation).

In 1893, the U.S. Army appropriated 54 acres of the Golden Gate Cemetery land from the City to construct a military reservation and coastal artillery batteries. In 1900, the reservation was named Fort Miley after Lieutenant Colonel John D. Miley, one of the planners of San Francisco's coastal battery network. The Fort Miley post was developed between 1902 and 1906 and included a horseshoe-shaped Parade Ground and several frame barracks and quarters in the center of the reservation between the east and west batteries (the current site of the SFVAMC Fort Miley Campus). The original City Cemetery Reservation included portions of the existing Fort Miley, Lincoln Park, and the Campus, but records indicate that human remains were removed from the site in 1908. During World War I, the Fort Miley batteries quickly became outdated with the advent of aerial bombardment.

East and West Fort Miley, adjacent to the SFVAMC Fort Miley Campus, are part of the Golden Gate National Recreation Area (GGNRA) and are managed by the National Park Service (VA, 2003).

Existing SFVAMC Fort Miley Campus

The existing SFVAMC Fort Miley Campus was originally part of U.S. Army Fort Miley. In 1932, the Veterans Administration⁴ acquired 29 acres of Fort Miley and began construction of the medical center. The hospital, dedicated in November 1934, initially consisted of 21 buildings located primarily in the northern and eastern parts of the Campus. The original Campus was designed by VA architects in an Art Deco style with Mayan-inspired ornamentation and was built by the Herbert M. Baruch Corporation. By 1942, 11 additional buildings were added to the Campus. Few changes occurred at the site until the 1960s, when VA undertook efforts to modernize the SFVAMC by adding several new buildings and parking lots and modifying and renovating existing facilities. Construction projects occurred at the Campus sporadically over the next few decades (VA, 2003; VA, 2011).

Mission Bay Area

The Mission Bay area was originally an open bay and marshy area. Starting in the late 19th century, the area was filled in to allow for development as an industrial tract. Southern Pacific Railroad used the site for several decades and constructed several tracks and spurs in the immediate area. It remained industrial until into the late 20th century, when it was redeveloped to include more dense mixed-use buildings, consisting of high-end residences, retail establishments, offices, studios, and research facilities. Currently, this area is being developed with a 43-acre University of California, San Francisco (UCSF) Research Campus and a 14.5-acre UCSF Medical Center. The Mission Bay area continues to thrive and maintain its diverse character today (Gebhard et al., 1973; UCSF, 2008).

Cultural Resources Identified in the Project Area

The following section discusses cultural resources on the existing SFVAMC Fort Miley Campus and in the Mission Bay area. Known cultural resources at the Campus and their significance findings are described below. This section also includes a discussion of resource types in the Mission Bay area.

Paleontological Resources

Paleontological Resource Inventory Methods

A stratigraphic inventory was completed to develop a baseline paleontological resource inventory of the existing SFVAMC Fort Miley Campus and the Mission Bay area and surrounding areas by rock unit, and to assess the potential paleontological productivity of each rock unit. Research methods included a review of published and unpublished literature and a search for recorded fossil sites at the University of California Museum of Paleontology (UCMP, 2011). These tasks complied with Society of Vertebrate Paleontology guidelines (SVP, 1995).

⁴ The Veterans Administration was created in 1930 by Executive Order 5398 signed by President Herbert Hoover. Legislation passed in 1988 elevated VA to Cabinet status, and on March 15, 1989, the Department of Veterans Affairs became the 14th department in the President's Cabinet. (VA, 2009a.)

To better understand the stratigraphy of the existing SFVAMC Fort Miley Campus and the Mission Bay area, geologic maps and reports covering the geology of these areas were reviewed to determine the exposed rock units and to delineate their respective aerial distributions in the respective areas.

As part of the paleontological resource inventory, published and unpublished geological and paleontological literature was reviewed to document the number and locations of previously recorded fossil sites from rock units exposed in the San Francisco peninsula and vicinity, as well as the types of fossil remains that each rock unit has produced. The literature review was supplemented by an archival search conducted by AECOM at the UCMP in Berkeley, California, on March 17, 2011 (UCMP, 2011).

Because a review of aerial photographs indicates that at least 80 percent of the ground surface of the existing SFVAMC Fort Miley Campus and the Mission Bay area is obscured by buildings and pavement, a reconnaissance-level field survey was not performed.

Paleontological Resource Assessment Criteria

The potential paleontological importance of the existing SFVAMC Fort Miley Campus and the Mission Bay area can be assessed by identifying the paleontological importance of exposed rock units in these areas. Because the areal distribution of a rock unit can be easily delineated on a topographic map, this method is conducive to delineating parts of these areas that are of higher and lower sensitivity for paleontological resources.

A paleontologically important rock unit is one that has a high-potential paleontological productivity rating and is known to have produced unique, scientifically important fossils. The potential paleontological productivity rating of a rock unit exposed in the project locations refers to the abundance/densities of fossil specimens and/or previously recorded fossil sites in exposures of the unit in and near the project locations. Exposures of a specific rock unit on the existing SFVAMC Fort Miley Campus and in the Mission Bay area are most likely to yield fossil remains representing particular species in quantities or densities similar to those previously recorded from the unit in and near the project locations.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

For example, identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare. The value or importance of different fossil groups varies, depending on the age

and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions, such as part of a research project. Marine invertebrate fossil specimens are generally common, well developed, and well documented. They would generally not be considered a unique paleontological resource.

The tasks listed below were completed to establish the paleontological importance of each rock unit exposed at or near the existing SFVAMC Fort Miley Campus and the Mission Bay area.

- The potential paleontological productivity of each rock unit was assessed, based on the density of fossil remains previously documented within the rock unit.
- The potential for a rock unit exposed in the project area to contain a unique paleontological resource was considered.

Paleontologic Resource Inventory Results for SFVAMC Fort Miley Campus and Mission Bay Area

Stratigraphic Inventory

Regional and local surficial geologic mapping and correlation of the various geologic units on the existing SFVAMC Fort Miley Campus and in the Mission Bay area and vicinity have been provided at a scale of 1:250,000 by Wagner, Bortugno, and McJunkin (Wagner et al., 1991).

Paleontological Resource Inventory and Assessment by Rock Unit

Based on a record search conducted at UCMP, no previously recorded vertebrate fossil localities exist within the SFVAMC Fort Miley Campus (UCMP, 2011). The closest recorded vertebrate fossil was recovered from the Sutro Baths area, which is within the GGNRA, approximately one-third mile southwest of the existing SFVAMC Fort Miley Campus (Hay, 1927, as cited in Jefferson, 1991). In addition, a vertebrate fossil was recovered from Ocean Beach, approximately three-quarters mile southwest of the SFVAMC Fort Miley Campus (Savage, 1951, as cited in Jefferson, 1991). Both fossils were of Pleistocene age (i.e., approximately 1.8 million to 11,000 years B.P.).

The UCMP record search also indicated that there are no previously recorded vertebrate fossil localities within the Mission Bay area. However, UCMP sites V-3411 and V-69816 are located approximately 2,000 feet northeast of the northeastern boundary of the Mission Bay area, at the San Francisco–Oakland Bay Bridge. These sites yielded specimens of Pleistocene-age mammoth and horse. UCMP site V-3410 is located approximately 1,000 feet south of the Mission Bay area’s southern boundary, at the Islais Creek Channel. This site yielded a specimen from an unknown Pleistocene-age mammal.

Holocene—Alluvium, Artificial Fill, Dune Sand

By definition, an object must be more than 11,000 years old to be considered a unique, significant fossil. Because the Alluvium, Artificial Fill, and Dune Sand deposits on the existing SFVAMC Fort Miley Campus and in the Mission Bay area and vicinity are younger than 11,000 years B.P., these formations are considered to be of low paleontological sensitivity.

Mesozoic—Franciscan Assemblage

The Franciscan Assemblage consists of various types of rocks that formed along the Pacific Oceanic Plate and the North American Plate; these rocks were subsequently deformed and metamorphosed during subduction of the Pacific Oceanic Plate. Various authors have reported the presence of marine invertebrates in the Franciscan Assemblage throughout California (see, for example, Bailey et al., 1964); however, marine invertebrate fossil specimens are generally common, well developed, and well documented. They would generally not be considered a unique, significant paleontological resource. Reports of vertebrate fossils from the Franciscan Assemblage are rare (e.g., only two localities have been recorded by the UCMP: one in San Joaquin County and one in San Luis Obispo County). Because of the nature of this rock assemblage (i.e., vertebrate fossils in the original parent material generally would have been destroyed during the subduction and metamorphosis process) and the general lack of previously recorded vertebrate fossil localities, this formation is considered to have a low paleontological sensitivity.

Archaeological Resources

Existing SFVAMC Fort Miley Campus

A record search conducted through the Northwest Information Center of the California Historical Resources Information System demonstrated that no early Native American archaeological sites have been documented within the existing SFVAMC Fort Miley Campus (NWIC, 2011). The letter report describing the results of the record search is presented in Appendix C. Although such locations may have once been present within and near the lands now occupied by the Campus, heavy urban development has likely destroyed or at least covered over such evidence.

To date only record searches have been performed within the boundaries of the SFVAMC Fort Miley Campus; no archaeological survey or subsurface testing has been conducted. No archaeological surface survey was conducted for the project because most of the Campus is previously developed with paved or covered in structures, and open areas are landscaped. Therefore, it is unlikely that a surface survey would result in the identification of archaeological resources. The geotechnical report conducted by Treadwell & Rollo (2010) indicated that most of the Campus has a layer of fill material 1–6 feet deep overlying bedrock, although there are still areas of natural soil overlying bedrock. Likewise, an online search of the U.S. Department of Agriculture’s Web soil survey (USDA, 2012) indicates that most of the Campus surface (approximately 70 percent) has been developed. The results of the online survey are presented in a report format in Appendix C.

Although no prehistoric archaeological sites have been previously reported within the existing SFVAMC Fort Miley Campus, the nearby shorelines appear to have been the focus of intensive prehistoric activity because of their access to a wide variety of terrestrial and marine resources. Two prehistoric archaeological sites (CA-SFR-5 and CA-SFR-20) and one multicomponent site (CA-SFR-21) have been recorded on the present-day shoreline in the Campus vicinity. In addition, three historic archaeological resources (CA-SFR-98H, CA-SFR-164H, and CA-SFR-174H) have been reported in the project vicinity. These sites are summarized below.

- *CA-SFR-5*: This site, also referred to as Nelson 397, was originally documented in 1949, at the site of the Sutro Baths. A surface survey found that this site contained a prehistoric lithic scatter, shell midden, and habitation debris. An unspecified amount of bone was also suggested. No subsurface excavation was

performed, and little information is available about the site's size, constituents, or integrity. The site record was subsequently updated in 1967 and 1975 to provide additional data regarding location and condition.

- *CA-SFR-20*: Identified during a surface survey, Site CA-SFR-20 (Nelson 396) is a prehistoric site originally mapped by Nels Nelson in 1908. Although few additional data are available regarding the site's type, a subsequent (1979) record from the Cabrillo College Archaeological Site Survey indicates that it was likely a shell midden.
- *CA-SFR-21*: Site CA-SFR-21 (the Sutro Baths Site) was first recorded in 1901 (and updated in 2008) during a surface survey. It was described as a multicomponent site with prehistoric attributes including a lithic scatter, evidence of hearths or fire pits, and habitation debris. It has been suggested that a large concentration of shell was almost completely removed as part of the Sutro Baths' construction. Historic attributes identified include structural foundations, landscaping features, historic trash/debris, machinery, and some walls/fences.
- *CA-SFR-98H*: This former military property was recorded in 1980 and consists of the discontinuous Fort Miley Military Reservation Historic District (Fort Miley Historic District). Although a surface survey was performed, no artifacts or archaeological features were reported.
- *CA-SFR-164H*: Recorded in 2006, Site CA-SFR-164H (Land's End Ocean Terrace) is described as a historic-period archaeological resource. Both a surface survey and excavation were conducted, resulting in the identification of structural foundations and historic trash/debris scatters.
- *CA-SFR-174H*: Recorded in 2010, Site CA-SFR-174H (Merrie Way/Sutro's Pleasure Grounds) is described as a historic-period archaeological resource. Both a surface survey and excavation were conducted, resulting in the identification of historic trash/debris scatters and a water conveyance system. Enclosures (such as walls and fences) were also reported.

Although very little information is available about any of these sites, the prehistoric components appear to be typical of the archaeological resources found in similar environments along the San Francisco Bay shorelines, reflecting early Native American activity and habitation in the region. Most prehistoric sites in the area are found along the shoreline, most of the SFVAMC Fort Miley Campus is developed, the area was formerly used as a cemetery and human remains were subsequently removed, and the area was formerly used as a military base; therefore, the area's overall sensitivity for prehistoric resources is low.

A portion of Fort Miley once stood on the present-day SFVAMC Fort Miley Campus, in an area that once was within the City Cemetery Reservation. Although burials were removed from this area in 1908, construction efforts (in 1921 and 1993) at the nearby Palace of the Legion of Honor (approximately one-quarter mile to the northeast) identified human remains associated with this cemetery. Because there is still the potential for human remains to be located in the vicinity, the Campus is considered sensitive for historic-era archaeological resources.

Mission Bay Area

A Northwest Information Center record search, a review of local inventories, and an archaeological survey of the Mission Bay area have not been conducted. Because this area is completely developed and does not include substantial areas of natural ground surface, methods such as records searches and field surveys are very unlikely

to yield information about archaeological resources in this area. Previous studies conducted before construction efforts located near the Mission Bay area support this conclusion (UCSF, 2005). A report prepared for the UCSF Hospital Replacement Program included an area located in Mission Bay (UCSF, 2005). Although that area is outside of the project area for the potential new SFVAMC Mission Bay Campus, it is nearby and provides insight into the archaeological sensitivity of the site of the potential new Campus. The report for the UCSF Hospital Replacement Program noted that no archaeological sites had been identified in the program's project area. The report further noted that the area had been highly disturbed from previous development and that large amounts of fill had been imported; the report concluded that it was highly unlikely that archaeological resources were located within the program's project area (UCSF, 2005).

Historic Resources

Existing SFVAMC Fort Miley Campus

Fort Miley Military Reservation Historic District

The Fort Miley Military Reservation Historic District (Fort Miley Historic District) surrounds the SFVAMC Fort Miley Campus on the east and west and thus is part of the affected environment. The Fort Miley Historic District was listed in the National Register of Historic Places (NRHP) in 1980, under Criterion A, for its significance at the national level as part of the military defense system of San Francisco. The period of significance is 1892–1950. Extant structures and buildings within the Fort Miley Historic District include battery emplacements, fire control stations, searchlight facilities, and an ordnance storehouse.

The gun batteries at Fort Miley, along with Fort Barry north of the Golden Gate Bridge, represent the last phase of the Endicott period of seacoast defense—a modernization and construction program for coastal fortification that began in 1890. Battery Chester in West Fort Miley and Battery Livingston in East Fort Miley, completed between 1901 and 1903, are significant as the first defense structures constructed within the boundaries of Fort Miley. Constructed in 1902, the Ordnance Storehouse—the only extant building from the Fort Miley post—was moved a short distance to its current location sometime between 1934 and 1942; despite being moved, the Ordnance Storehouse is significant as the sole survivor of the Fort Miley post buildings. Structures and buildings constructed at West Fort Miley during World War II, including the searchlight powerhouse and three fire control buildings, are significant for their association with the continued improvement of harbor defense through World War II. Battery 243, completed in 1944, was the last structure constructed at Fort Miley, and it represents the last phase of the “traditional concept” of coastal defense; Battery 243 was the only 6-inch gun battery of its kind in the GGNRA.

The following buildings and structures have been removed:

- Battery Call, constructed in 1915 in West Fort Miley and salvaged in 1921
- Searchlights 5 and 6, constructed in 1937 in West Fort Miley and removed at an unknown date
- Four of the original seven fire control stations, all located in West Fort Miley and built by World War II (removal date unknown)

- Two 3-inch anti-aircraft gun emplacements located near Battery Livingston, constructed in the 1920s (removal date unknown)
- All but one of the buildings that composed the original Fort Miley post

The NRHP nomination form for Fort Miley does not specifically address character-defining features of the buildings, structures, or landscape, but the nomination notes that Battery Chester’s “simple, but impressive architectural lines, its massiveness, and its unique aspect of having gun platforms designed for both ‘disappearing’ (2) and barrette (1) carriages” contribute to the significance of the site (NPS, 1980:8-2). Additionally, Battery Livingston is notable for its “simpl[e] and functional lines, and the massiveness of its earthworks” (NPS 1980:8-2). The NRHP nomination form describes the overall condition of the site in 1979 as “good,” and the integrity of most extant features in the Fort Miley Historic District as moderate to high. A report for VA by Winzler & Kelly (VA 2010a) notes that Historic District integrity was high in 2010.

SFVAMC Historic District

Buildings located in the northern and eastern sections of the SFVAMC Fort Miley Campus compose a historic district. Listed in the NRHP in April 2009 (Bright and Bamburg, 2009), the SFVAMC Historic District contains 14 contributing buildings and structures (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18, 20, and a flagpole and base) and nine noncontributing buildings or structures (14, 25, 26, 31, 32, 33, 202, 210, and 212) on 12 acres of the overall 29-acre Campus.

The NRHP nomination for the SFVAMC Historic District is not explicit about which physical or intangible qualities of the Historic District compose its character-defining features; however, extrapolating from the statement of significance, the following are the three character-defining features of the SFVAMC Historic District:

- The SFVAMC Historic District’s ongoing operations as a VA medical facility would be a key character-defining feature that conveys its significance as an early VA hospital.
- The structural system of each of the contributing buildings constructed during the 1934 building campaign would be a seldom-seen but critically important quality that allows the Historic District to represent an early example of seismically resistant building technologies.
- The architectural qualities that convey the SFVAMC Historic District’s significance as an example of Mayan Art Deco design include the “play between horizontal and vertical [that] is balanced with bold, horizontal podiums and thick concrete walls playing off delicate terra cotta ornament and strong vertical lines” (Bright and Bamburg, 2009:Section 7, Page 1). Dramatic massing and proportions, centrally located entrances that are embellished with terra cotta design motifs, towers with stepped parapets projecting above rooflines, and molded and inscribed terra cotta ornamentation that is inspired by historic Mayan designs are all mentioned in the nomination’s description of the architectural significance of the SFVAMC Historic District.

The nomination also recognizes the following (Bright and Bamburg, 2009):

- Several major building campaigns since 1934 have dramatically altered the semi-pastoral character of the SFVAMC Fort Miley Campus by adding over a dozen buildings whose design and locations do not support the design plan of the original Campus. The large size of many of these new buildings, combined with their awkward siting and incompatible materials and design, have harmed the overall integrity of the original Campus. In addition, many of the original 1934 buildings have been unsympathetically altered, particularly those that have received large additions.
- Some historic landscaping features had been removed by the time that the SFVAMC Historic District was listed, including the large garden and horseshoe-shaped driveway for patient drop-off located south of Building 2, which had served as the primary landscaped feature on the SFVAMC Fort Miley Campus (see Exhibits 7 A–D, “Historic Development,” of the 2009 NRHP Nomination for the SFVAMC Historic District [Bright and Bamburg, 2009]). A secondary landscaped area to the east of Building 1 was replaced by surface parking in 1964, and all that remains is the memorial flagpole structure. The triangular patch of lawn fronting Clement Street between 42nd and 43rd Avenues and the strips of lawn buffering Buildings 2, 3, 5, 7, 8, 9, 10, 11, and 18 (all of which are contributors to the SFVAMC Historic District) are all that remain from a once extensively landscaped Campus.

There are also several sections of the current SFVAMC Fort Miley Campus that, while not landscaped, feature stands of trees and scrub. These areas are largely confined to the edges of the Campus, on steep slopes or other nonbuildable sections. After the SFVAMC hospital dedication in 1934, all sections of the Campus that were not developed or formally landscaped—including much of the western part of the Campus, the northern slope, and a patch near the water tower—were allowed to grow wild. Although this semiwild vegetation was not formally planted and does not contribute to the understanding of the historic uses of Fort Miley or the SFVAMC, it forms a green buffer between the institution, the Outer Richmond District neighborhood, GGNRA, and the Fort Miley Historic District.

Two areas within the SFVAMC Historic District retain a high degree of integrity: the eastern portion of the SFVAMC Fort Miley Campus, including Buildings 1, 8, 9, 10, and 11, and the northwestern portion of the Campus, including Buildings 2 (north-facing elevations), 3, 4, 6, and 18. To date, these two areas have undergone the fewest permanent alterations and retain a sufficient level of integrity of character and design to the Historic District’s period of significance.

Select contributors to the SFVAMC Historic District are described below. This discussion of contributors is limited to Buildings 1, 5, 6, 7, 8, 9, 10, 18, and 20, because they would be physically altered by the Proposed Action and changes to these buildings could affect the Historic District as a whole. For additional information about each contributor and the SFVAMC Historic District, see the 2009 NRHP Nomination for the SFVAMC Historic District (Bright and Bamburg, 2009).

- *Building 1* was constructed in 1934. The prominent building has an E-shaped plan with a central bar and two wings intersecting at right angles. The central pavilion rises to four stories, with the wings dropping to three stories and further to two stories. It also features granite stairs, a tower, and a central bay that is the focal point of the façade. Building 1 displays a high level of architectural detailing including an elaborate entrance,

ornate terra cotta ornament, and concrete grills. The concrete exterior is finished with smooth stucco. The building has undergone several interior alterations, but the exterior retains a high level of integrity, having undergone few changes. The building's visual prominence and architecture lend to its significance.

- *Building 5* is located between Buildings 2 and 7 and was constructed in 1934. The building features a restrained front façade that is six bays wide and features few architectural embellishments. The building's concrete exterior is finished in stucco. Building 5 has undergone few major alterations, with the exception of the filling in of some window openings and the replacement of some windows. The interior has been heavily modified. The building retains a good level of architectural integrity.
- *Building 6* is a three-story building located between Buildings 4 and 14 and is attached to Building 4 by a skybridge. Constructed in 1934, Building 6 is composed of reinforced concrete with a T-shaped plan. The building has an asymmetrically massed façade with a four-story tower placed east of the central axis. The exterior features a highly embellished entry pavilion flanked by elaborate terra cotta ornament, sculpted terra cotta spandrel panels, and incised vertical speed lines. The concrete exterior is finished in a thin layer of stucco. Significant exterior changes to Building 6 include the 1980s construction of an enclosed stairwell on the northeast wall, and the replacement of the original metal casements with anodized aluminum windows. The interior has also undergone substantial alterations. The exterior otherwise has a high level of architectural integrity.
- *Building 7* was constructed in 1934. It is a three-story reinforced-concrete building with basically a rectangular plan and a flat roof. The façade is seven bays wide with projecting corner pavilions. The pavilion on the west side of the building rises a full floor level. Mayan-inspired terra cotta designs decorate the spandrels at midpoint in the lower vertical window bays and in a band just below the cornice. The concrete exterior is finished in a thin layer of stucco. The exterior has undergone a series of alterations that have resulted in the removal of much of the building's original ornate detailing, especially on the north elevation where a "greenhouse" style canteen addition was constructed with glass sections within a metal frame. Another important alteration was the replacement of the original windows with new sash and the filling in of the lower sections of each window bay. The interior theater was subsequently removed and a modern mezzanine constructed in its place. Building 7 has undergone many alterations that compromise its overall level of individual integrity.
- *Building 8* is a three-story-over-basement, reinforced-concrete building with a flat roof. It was constructed in 1934. The front elevation features a prominent entrance with a suspended metal canopy and terra cotta surrounds. Additional features include stepped pilasters and recessed window bays with terra cotta spandrel panels. The interior has been altered; however, the exterior of the building is relatively unchanged. Alterations include the replacement of original aluminum casement windows with aluminum-framed units, the widening of exterior stairs, and addition of wheelchair access. Two rooms have also been added on the north and south ends above the first floor. The building's visual prominence, architectural quality, and exterior integrity are significant to the building.
- *Building 9* is adjacent to Building 8 and identical to Building 10 to the north and, like Building 8, was constructed in 1934. It is a two-story-over-basement reinforced-concrete building with an irregularly shaped plan, with side façades that step back to a smaller rear façade and a stepped parapet roof. Although not as

heavily detailed as others within the SFVAMC Historic District, the façade of Building 9 is elaborated to a relatively high degree with a sculpted terra cotta frieze, pylon-shaped door hoods, and other Mayan-inspired ornament. Overall, the exterior has undergone few changes. Modifications include the replacement of the original casements with double-hung wood windows. The former open bay patio was closed in and converted into rooms. Building 9 retains a high degree of integrity.

- *Building 10*, like Building 9, is part of a cluster of buildings that were originally built in 1934. It is a two-story-over-basement reinforced-concrete building with an irregularly shaped plan and a stepped parapet roof. The façade of Building 10 is architecturally significant with its sculpted terra cotta frieze, pylon-shaped door hoods, and Mayan inspired ornament. The exterior has undergone few changes aside from the replacement of the original metal casements with double-hung wood windows and the addition of awnings at the entrances. The open bay patios were also closed in and converted into rooms. Building 10 also retains a high degree of integrity and is a contributor to the Historic District.
- *Building 18* was constructed in 1897 and remodeled in 1934 to match the rest of the then-new SFVAMC Fort Miley Campus. It is a two-story-over-basement wood-frame building with a U-shaped plan and a flat roof. The façade faces the former Fort Miley Circle (now Veterans Drive) and a central pavilion projects forward beyond the rest of the stucco-finished façade. The twin main entrances to the building flank this pavilion on either side. Building 18 has been incrementally remodeled, resulting in the replacement of many of the double-hung wood windows with aluminum casements. Nevertheless, the building retains a moderate level of architectural integrity from the substantial 1934 remodeling.
- Building 20 is east of Building 8 and was constructed in 1934 as a garage. The building is a one-story, wood-frame rectangular structure with a shallow pitched roof. The building is designed with Craftsman elements, with its most notable feature being its regularly spaced exposed wood rafters with decorative cut ends. The vehicular openings are fronted by contemporary garage doors. The interior walls are composed of hollow clay tile. The building has eight original garage bays, and three were added at some point during the 1950s or 1960s. Alterations to Building 20 include the replacement of the garage doors and the construction of an addition on the southwest corner of the building. Overall, the building retains a good level of architectural integrity.

Mission Bay Area

The Mission Bay area is populated with modern development dating to the late 20th century, with pockets of historical development dating to the area's maritime industrial history. Building types include multifamily flats, commercial buildings, and industrial complexes. Common uses in the area, in addition to residential dwellings, are light industrial, commercial, and warehouse. The area features various architectural styles including contemporary residential, brick commercial, and converted warehouses (Gebhard et al., 1973; UCSF, 2008).

3.4.2 Regulatory Framework

National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966 (NHPA) established the Advisory Council on Historic Preservation; authorized the Secretary of the Interior to maintain an NRHP; directed the Secretary to approve state

historic preservation programs that provided for a State Historic Preservation Officer (SHPO); established a National Historic Preservation Fund program; and codified the National Historic Landmarks program.

Section 106 of the NHPA requires that federal agencies take into account the effects of their actions (referred to as “undertakings” under Section 106) on properties that may be eligible for or listed on the NRHP, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. To determine whether an undertaking could affect NRHP-eligible properties, all cultural sites (archaeological, historical, and architectural properties) that could be affected by the undertaking must be inventoried and evaluated for inclusion in the NRHP. The SFVAMC LRDP is an undertaking that is subject to Section 106 of the NHPA, because implementation of the proposed undertaking would be a federal action with the potential to affect NRHP-eligible properties. VA is the lead federal agency responsible for compliance with Section 106 of the NHPA. The requirement under NEPA to identify and assess impacts on cultural resources may be fulfilled through compliance with Section 106 of the NHPA. Section 106 requirements are being met in accordance with the VA Cultural Resource Management Checklist, which outlines the regulatory requirements and documentation standards for project review (VA, 2009b).

Section 106 of the National Historic Preservation Act of 1966

Section 106 of the NHPA and its implementing regulations (Title 36 of the Code of Federal Regulations [CFR], Part 800 [36 CFR 800], as amended in 1999) requires federal agencies to consider the effects of their undertakings, or those they fund or permit, on properties that may be eligible for listing, or that are listed in the NRHP.

The regulations implementing Section 106 call for considerable consultation with SHPO, Indian tribes, and interested members of the public throughout the process. The four principal steps are as follows:

1. Initiate the Section 106 process, including a plan for public involvement (36 CFR 800.3).
2. Identify historic properties, consisting of those resources within an Area of Potential Effect (APE) that are eligible for inclusion in the NRHP (36 CFR 800.4).
3. Assess the effects of the undertaking on historic properties in the APE (36 CFR 800.5).
4. Resolve adverse effects (36 CFR 800.6).

Adverse effects on historic properties often are resolved through preparation of a memorandum of agreement or a programmatic agreement developed in consultation between the lead federal agency, the SHPO, Indian tribes, and interested members of the public. The Advisory Council on Historic Preservation is also invited to participate. VA has published guidance on implementing Section 106.

In accordance with NHPA requirements, VA has initiated consultation under Section 106 of the NHPA with the California SHPO and has invited parties with a demonstrated interest in historic preservation to participate as consulting parties. The SHPO has responded to VA with concurrence on VA’s definition of the proposed undertaking, outline of the APE, and approach to the Section 106 consultation and public involvement process. The Section 106 public involvement process will be integrated with the NEPA public involvement process. This

includes appending the Section 106 Finding of Effect to this EIS (see Appendix C) and providing an opportunity to comment on Section 106 during the public meeting to be held during the Draft EIS public review period.

National Register of Historic Places Evaluation Criteria

The NRHP is a register of districts, sites, buildings, structures, and objects of significance in American history, architecture, archaeology, engineering, and culture. The NRHP is maintained by the Secretary of the Interior. A property may be listed in the NRHP if it meets criteria for evaluation defined in 36 CFR 60.4:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- (A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) That are associated with the lives of persons significant in our past; or
- (C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) That have yielded, or may be likely to yield, information important in prehistory or history.

Under Section 106 of the NHPA, only cultural resources that have been determined to be eligible for listing in the NRHP or that are listed in the NRHP need to be considered when evaluating an action's effects on cultural resources.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) amended the Antiquities Act of 1906 (16 U.S. Code 431–433) and set a broad policy that archaeological resources are important to the nation and should be protected, and required special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of ARPA was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979. Compliance with ARPA is required for the Proposed Action, because the project site is located on public (federal) land; however, no actions are needed to comply with ARPA unless excavation of archaeological resources becomes necessary.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act established federal policy to protect and preserve the inherent rights of freedom for Native groups to believe, express, and exercise their traditional religions. These rights include but are not limited to access to sites, use and possession of sacred objects, and freedom to worship through

ceremonials and traditional rites. The American Indian Religious Freedom Act would be applicable to the Proposed Action or Alternatives if actions would result in limits to the expression of Native American beliefs or restrict access to sites important to religious practice.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items within their collections, notify Native groups of their holdings, and provide an opportunity for repatriation of these materials. This law also requires planning for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA is applicable to the Proposed Action because the project site is located on federal land. No actions are needed to comply with NAGPRA unless human remains of Native American origin are discovered on federal land.

Society of Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP, 1995, 1996), a national scientific organization of professional vertebrate paleontologists, has established standard guidelines that outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, analysis, and curation. Most practicing professional paleontologists in the nation adhere to the Society of Vertebrate Paleontology's assessment, mitigation, and monitoring requirements, as specifically spelled out in its standard guidelines. The analysis performed for implementation of the SFVAMC LRDP conforms to Society of Vertebrate Paleontology guidelines.

3.4.3 Environmental Consequences

Significance Criteria

A NEPA evaluation must consider the context and intensity of the environmental effects that would be caused by, or result from, the EIS Alternatives.

An alternative would be considered to result in an adverse impact related to cultural resources if it would:

- destroy a unique paleontological resource or site or unique geologic feature;
- damage or destroy an archaeological resource or site;
- disturb any human remains, including those interred outside of formal cemeteries; or
- cause a substantial change to a historic resource or district.

Federal laws and regulations described above in Section 3.4.2, "Regulatory Framework," represent the SFVAMC's regulatory responsibilities concerning the impacts of its actions on cultural resources. In addressing impacts on archaeological resources, an agency may decide to avoid affecting a resource or mitigate adverse impacts through measures such as data recovery. ARPA protects sites through penalties for noncompliance with

its provisions and provides for authorizing archaeological investigations. NAGPRA addresses the requirements for repatriation of Native American human remains and associated funerary objects. In addition, the American Indian Religious Freedom Act contains provisions for protection of religious rights, including freedom to worship through ceremony and traditional rites, and access to sites on federal lands.

Assessment Methods

Historic and Archaeological Resources

In accordance with the Code of Federal Regulations, this section assesses effects on cultural resources that meet the eligibility criteria for listing in the NRHP. When evaluating the significance of project impacts under NEPA, the NHPA Section 106 criteria for assessing adverse effects were applied. According to 36 CFR Part 800.5, an undertaking would have an adverse effect on historic properties if the effect would alter the characteristics that qualify a property for inclusion in the NRHP.

To assess the potential historic and archaeological impacts associated with LRDP implementation, it was determined whether prehistoric or historic archaeological sites, structures, or objects listed in or eligible for listing in the NRHP would be subjected to any of the following:

- physical destruction of or damage to all or part of the property;
- alteration of the property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR 68) and applicable guidelines;
- removal of the property from its historic location;
- change in the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- introduction of visual, atmospheric, or audible elements⁵ that diminish the integrity of the property's significant historic features;
- neglect of the property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- transfer, lease, or sale of the property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

⁵ Visual, atmospheric, and audible elements are those elements that are nonphysical and relate to the setting, feeling, and historical association of a property.

Paleontological Resources

In its standard guidelines for assessment and mitigation of adverse impacts on paleontological resources, the Society of Vertebrate Paleontology (1995) established three categories of sensitivity for paleontological resources: high, low, and undetermined. Areas where fossils have been previously found are considered to have a high sensitivity and a high potential to produce fossils. Areas that are not sedimentary in origin and that have not been known to produce fossils in the past typically are considered to have low sensitivity. Areas that have not had any previous paleontological resource surveys or fossil finds are considered to be of undetermined sensitivity until surveys and mapping are performed to determine their sensitivity. After reconnaissance surveys, observation of exposed cuts, and possibly subsurface testing, a qualified paleontologist can determine whether the area should be categorized as having high or low sensitivity. In keeping with the significance criteria of the Society of Vertebrate Paleontology (1995), all vertebrate fossils are generally categorized as being of potentially significant scientific value.

To assess the potential paleontological impacts associated with LRDP implementation, it was determined whether the proposed undertaking would adversely affect an individual vertebrate fossil specimen that is considered unique or significant, is identifiable and well preserved, and meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

Alternative 1: SFVAMC Fort Miley Campus Buildout Alternative

Near-Term Projects

Construction

Paleontological Resources

The existing SFVAMC Fort Miley Campus is underlain by Artificial Fill, Dune Sand, and the geologic formation known as the Franciscan Assemblage. Because of the young age of the Artificial Fill and Dune Sand, and the way in which the Franciscan Assemblage was formed, they are considered to be of low paleontological sensitivity. Furthermore, the result of a records search at the UCMP indicated that no fossils have been recovered from areas beneath the Campus. Therefore, construction activities at the existing Campus would have a direct minor impact on unique paleontological resources. No indirect impacts would occur.

Archaeological Resources

Archival research demonstrates that no prehistoric or historic-era archaeological sites, features, artifacts, or human remains have been documented within the existing SFVAMC Fort Miley Campus. Therefore, construction activities at the Campus would have no direct or indirect impact on presently documented archaeological resources and human remains.

No documented significant archaeological resources or human remains are known to be present within the existing SFVAMC Fort Miley Campus. However, construction activities at the Campus could have a direct adverse impact on presently undocumented significant archaeological resources or human remains.

Mitigation Measure CR-1: Stop Ground-Disturbing Activities in the Vicinity of an Unanticipated Find and Consult with a Qualified Professional Archaeologist.

If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) or human remains is made during project-related construction activities, ground disturbances in the area of the find will be halted and a qualified professional archaeologist will be notified regarding the discovery. The archaeologist will determine whether the resource is potentially significant as per the NRHP and develop appropriate mitigation. If human remains are encountered, the San Francisco County Coroner will be notified immediately upon their discovery. If the Coroner determines they are of Native American origin, the provisions of NAGPRA will apply.

Implementation of Mitigation Measure CR-1 would reduce potentially adverse impacts resulting from inadvertent damage or destruction of presently undocumented significant archaeological resources and human remains during construction to a minor level.

Historic Resources

Alternative 1 would involve construction of new structures, demolition of existing structures, and/or retrofitting of existing buildings on the existing SFVAMC Fort Miley Campus. The Campus site includes the SFVAMC Historic District and is adjacent to the Fort Miley Historic District.

Alternative 1 includes several project components to be developed in a near-term phase. Direct impacts on the SFVAMC and Fort Miley Historic Districts could occur if district components were physically altered in a way that would diminish their overall integrity. Indirect impacts could occur if visual and/or atmospheric intrusions outside the boundaries of the SFVAMC and Fort Miley Historic Districts would be introduced that would diminish the resources' ability to convey their significance.

Table 3.4-1 lists each phase of Alternative 1 near-term projects and the anticipated impact of that phase on the SFVAMC and Fort Miley Historic Districts.

Implementing the LRDP would result in a direct adverse impact on the SFVAMC Historic District, because of the incremental impairment of the integrity of materials, design, feeling, and setting of the Historic District that would result from buildout of all phases. Although no single LRDP project would result in an adverse effect on the SFVAMC Historic District on its own, the future state of the Historic District would be impaired by the

Table 3.4-1: Phases of Alternative 1 Near-Term Projects and Impacts on the SFVAMC and Fort Miley Military Reservation Historic Districts

Phase	Action Proposed for This Phase	Description of Action	Within District Boundary?	Impact on SFVAMC District?	Impact on Fort Miley District?
1.1	Building 41 (Research)	Construct new building and demolish Building T17	No	No	No
1.2	Emergency Operations Center and Building 211 Parking Garage	Construct new five-level parking structure	No	No	No
1.3	Building 22 Hoptel and Seismic Retrofit of Buildings 5, 7, 9, 10, 11, and 13	Construct new building and complete seismic retrofit of Buildings 5, 7, 9, 10, 11, and 13	Yes	Yes	No
1.4	Patient Welcome Center and Drop-Off Area	Introduce traffic circle and permanently close Veterans Drive to through traffic. Construct a new one-story building.	Yes	No	No
1.5	Building 24 Mental Health Clinic Expansion	Construct a new building and demolish Building 20C	Yes	Yes	No

Source: Data provided by SFVAMC in 2012

combination of physical changes to individual contributing buildings, introduction of new facilities within the Historic District, and changes to the setting of the Historic District resulting from the densification of the SFVAMC Fort Miley Campus. The physical and setting changes of each phase of Alternative 1 near-term projects are discussed in more detail below, and impact conclusions are presented for each phase.

Phase 1.1: Building 41 (Research)

Phase 1.1 would involve constructing a building between Building 6 (a contributor) and Building 12, and demolishing Building T-17 (a noncontributory). Construction would take place on the southwest end of the SFVAMC Fort Miley Campus outside of and adjacent to the boundary of the SFVAMC Historic District. The area is to the rear of the Historic District, which is oriented more to the north and facing San Francisco Bay.

Impacts of Phase 1.1 on the SFVAMC Historic District. Although the proposed Phase 1.1 development would occur outside the SFVAMC Historic District, it would introduce new visual elements to the Historic District where currently there is visual and pedestrian openness; therefore, an indirect adverse impact on the Historic District would occur.

However, the construction would not substantially alter the Campus's existing scale and character, and it would not detract from the Historic District's location, design, setting, materials, workmanship, and feeling. The Historic District would still be able to convey its significance as an early standardized VA hospital and as an example of a federal building designed with seismically resistant buildings in the Mayan Art Deco style. Therefore,

implementation of this component of Alternative 1 near-term projects would result in no direct impact on the SFVAMC Historic District.

Impacts of Phase 1.1 on the Fort Miley Historic District. Phase 1.1 construction activities would occur outside the boundary of the Fort Miley Historic District; thus, no direct impact would occur.

The project would introduce visual and/or atmospheric changes to the Historic District; however, these changes would be somewhat obscured from view by the tree canopy (including thick Monterey Cypress stands) along the western boundary of the Historic District. The Historic District would retain its integrity of location, design, feeling, and setting and continue to convey its significance. Therefore, no indirect impact on the Fort Miley Historic District would occur.

Phase 1.2: Emergency Operations Center and Building 211 Parking Garage Expansion

Phase 1.2 would involve constructing a five-story parking structure on the west end of the SFVAMC Fort Miley Campus. Construction would occur outside of the western boundary of the SFVAMC Historic District, west and to the rear of the Historic District boundary, which is oriented more to the north and facing the bay.

Impacts of Phase 1.2 on the SFVAMC Historic District. Proposed Phase 1.2 development would occur outside the SFVAMC Historic District but would introduce new visual elements to the Historic District; therefore, an indirect adverse impact on the SFVAMC Historic District would occur.

The Environmental Assessment (EA) prepared in 2011 for the Parking and Emergency Response Structure Project (Phase 1.2 of Alternative 1 near-term projects) concluded that the proposed building would not substantially alter the existing scale and character of the SFVAMC Fort Miley Campus and would include some architectural styling from the historic campus (VA, 2011). In March 2011, the project was reviewed by SHPO and was found to be compatible with the adjacent SFVAMC and Fort Miley Historic Districts (OHP, 2011). For the purposes of this EIS, this component of Alternative 1 near-term projects has been considered in light of the full development program of the LRDP. Phase 1.2 was found to have no direct impact on the SFVAMC Historic District because it would be visually removed from both districts and would not impair the integrity of feeling, setting, or association of this Historic District.

Impacts of Phase 1.2 on the Fort Miley Historic District. Proposed Phase 1.2 development would not introduce significant visual and/or atmospheric intrusions to the Fort Miley Historic District; thus, no indirect impact would occur.

The 2011 EA for the Parking and Emergency Response Structure Project in 2011 concluded that construction activities would occur outside the boundary of the Fort Miley Historic District and would not be visible, because of thick vegetation and a steep hillside that slopes away from the SFVAMC Fort Miley Campus (VA, 2011). For the purposes of this EIS, this component of Alternative 1 near-term projects has been considered in light of the full development program of the LRDP. Phase 1.2 was found to have no direct impact on the Fort Miley Historic District.

Phase 1.3: Building 22 Hoptel and Seismic Upgrades of Buildings 5, 7, 9, 10, 11, and 13

Phase 1.3 would involve constructing a two-story building behind Buildings 9 and 10 and seismically upgrading Buildings 5, 7, 9, 10, 11, and 13. With the exception of Building 13, these buildings are contributors to the SFVAMC Historic District. Also, with the exception of Building 13, which is outside district boundaries, all proposed activities would occur within the SFVAMC Historic District.

Impacts of Phase 1.3 on the SFVAMC Historic District. The 2010 EA for the Building 22 Hoptel project (Phase 1.3 of Alternative 1 near-term projects) concluded that the proposed activities would cause physical destruction, damage, or alteration to Buildings 9 and 10, because they would physically change the buildings and their appearance. Introducing a new building would introduce a visual, audible, or atmospheric element to the SFVAMC Historic District (VA, 2010b). The 2010 EA included mitigation measures and project design modifications to reduce impacts. The mitigation measures included adhering to the *Secretary of the Interior's Standards for Rehabilitation* for the design and construction modifications for Buildings 9 and 10 and ongoing consultation with the SHPO. Therefore, the impacts on the contributing building are considered already mitigated.

The planned development would alter the look and feel of the SFVAMC Historic District, introducing modern elements into a part of the Historic District that is mostly intact and features a high level of integrity of setting and design. The design, setting, and feeling of the Historic District and its ability to convey its significance would be compromised through the introduction of new visual elements and general densification of an area of the Historic District that has previously experienced little change. Therefore, a direct adverse impact on the Historic District would occur.

No indirect impact on the SFVAMC Historic District would occur because the planned construction would occur within district boundaries.

Impacts of Phase 1.3 on the Fort Miley Historic District. The proposed construction for Phase 1.3 would occur outside of the Fort Miley Historic District. The Proposed Action would introduce visual and/or atmospheric intrusions to the Historic District; however, these changes would be somewhat obscured by thick vegetation along the district boundary. Phase 1.3 of Alternative 1 near-term projects proposes development along the border between East Fort Miley and the SFVAMC Fort Miley Campus; however, hospital facilities have been located along this border since 1934, and thus, the setting and association would not be substantively changed from current conditions. Therefore, no direct or indirect impact on the Fort Miley Historic District would occur.

Phase 1.4: Patient Welcome Center and Drop-off Center

Phase 1.4 would involve introducing a traffic circle southwest of the south elevation of Building 1 and permanently closing Veterans Drive to through traffic. A one-story pavilion would be constructed on the ground level between Buildings 200 and 203, extending out toward Building 1. A traffic circle and drop-off area would be introduced in the front, taking out part of the roadway and replacing it with a garden.

Impacts of Phase 1.4 on the SFVAMC Historic District. The planned Phase 1.4 construction would take place within and to the south of the SFVAMC Historic District, which is oriented more to the north and facing San Francisco Bay (the east). This construction would introduce new visual elements to the Historic District, resulting in an adverse indirect impact.

The location of the planned construction within the SFVAMC Historic District has already been altered in recent years through the construction of Buildings 200 and 203 and the parking lot near Building 1. Thus, the new construction would not substantially alter the existing scale and character of the SFVAMC Fort Miley Campus or the Historic District, including its integrity of location, materials, workmanship, and character. The SFVAMC Historic District would still be able to convey its significance as an early standardized VA hospital, and as an example of a federal building designed with seismically resistant buildings in the Mayan Art Deco style. Therefore, implementation of this component of Alternative 1 near-term projects would result in no direct impact on the Historic District and would have a beneficial impact on the Historic District, because it would reintroduce an element of formal landscape to this part of the Campus.

Impacts of Phase 1.4 on the Fort Miley Historic District. Construction activities for Phase 1.4 would occur outside of the boundaries of the Fort Miley Historic District; therefore, no direct impact would occur.

The project would introduce visual, audible, and/or atmospheric intrusions to the Fort Miley Historic District. However, these changes would be somewhat obscured by the tree canopy (including thick Monterey Cypress stands) along the western boundary of the Historic District. The proposed construction would be mostly shielded from view from Fort Miley by landscape and dense vegetation. The Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. Thus, no indirect impact on the Fort Miley Historic District would occur.

Phase 1.5: Building 24 Mental Health Clinic Expansion

Phase 1.5 would involve constructing a three-story building within the SFVAMC Historic District behind Building 8 (a contributor). Building 20 (a contributor) and Building 32 (a noncontributor) would be demolished as part of this phase.

Impacts of Phase 1.5 on the SFVAMC Historic District. Because all proposed construction for Phase 1.5 would occur within the SFVAMC Historic District's boundaries, no indirect impact on the Historic District would occur.

The planned Phase 1.5 development would alter the look and feel of the SFVAMC Historic District by removing a contributing resource and introducing modern elements into a part of the Historic District that is mostly intact and features a high level of integrity of setting and design. The design, setting, and feeling of the Historic District and its ability to convey its significance would be compromised through the demolition of Building 20 and the introduction of new visual elements that, unless designed sensitively, could be visually overpowering. Therefore, there would be a direct adverse impact on the SFVAMC Historic District.

Impacts of Phase 1.5 on the Fort Miley Historic District. No direct impact on the Fort Miley Historic District would occur because planned Phase 1.5 construction would take place outside the Historic District's boundaries and the size and density of the tree canopy along boundary lines would allow for selective pruning of vegetation without compromising the viewshed of the Historic District.

The project would introduce visual and/or atmospheric changes to the Fort Miley Historic District; however, these changes would be somewhat obscured from view by the tree canopy (including thick Monterey Cypress stands) along the district's western boundary. The LRDP proposes development along the border between East Fort Miley and the SFVAMC Fort Miley Campus under Phase 1.5; however, hospital facilities have been located

along this border since 1934, and thus, the setting and association would not be substantively changed from current conditions. The Historic District would retain its integrity of location, design, feeling, and setting and continue to convey its significance. Therefore, implementation of this component of Alternative 1 near-term projects would result in no indirect impact on the Fort Miley Historic District.

Mitigation Measure CR-2: Adhere to the Secretary of the Interior’s Standards for the Treatment of Historic Properties (Rehabilitation) to Reduce Impacts on the SFVAMC Historic District

VA will ensure that any alteration or renovation of buildings that contribute to the SFVAMC Historic District conform to the Secretary of the Interior’s Standards for Rehabilitation to minimize any physical alterations to the buildings’ structure and appearance that may compromise their integrity and status as an eligible resource. New construction that would alter the setting of the SFVAMC Historic District will also take into account the Secretary’s Standards. Treatment or design guidelines for the SFVAMC Historic District may be necessary to ensure that these standards are customized to reflect the historical character of the Historic District. (This mitigation measure will be updated to reflect the consultation with the SHPO and consulting parties taking place under Section 106 of the NHPA.)

Implementation of Mitigation Measure CR-2 would help reduce the severity of impacts of Alternative 1 near-term projects on the SFVAMC Historic District; however, the impact would remain adverse, because project construction would still result in demolition of contributors and densification of the SFVAMC Historic District.

Landscaping and Open Space Areas

As part of Alternative 1, several trees would be removed and replaced with trees more adaptable to the climate. None of the individual trees within the SFVAMC Historic District are contributors.

The LRDP includes a landscape concept to provide guidance for future landscape improvements throughout the existing SFVAMC Fort Miley Campus, within and outside of the SFVAMC Historic District’s boundaries. The goals of the Landscape Concept are as follows:

- Reinststate a landscape character of dignity, quality, and professionalism, that honors America’s Veterans and communicates the excellent standards of the Campus.
- Create a landscape that supports health and healing.
- Promote good relations with Campus neighbors.
- Create a welcoming environment.
- Integrate sustainability.

Planned development would occur throughout the existing SFVAMC Fort Miley Campus, within and outside the SFVAMC Historic District’s boundaries. According to the NRHP nomination, the Campus originally included extensive and semiformal landscaping throughout the site. Major landscaping included a large garden and horseshoe-shaped patient drop-off driveway near the entry to Building 2 as well as landscaping east of Building 1 (Bright and Bamberg, 2009).

The goals of the Landscape Concept are consistent with the design intent of the historical landscaping plan for the SFVAMC Fort Miley Campus, which included a formal layout that welcomed patients and visitors and that encouraged healing through enjoyment of the gardens and grounds. Future landscape treatments that adhere to these goals are likely to benefit the overall integrity of the SFVAMC Historic District by reintroducing a more cohesive and formal landscape plan that supports health and healing and establishes a welcoming environment. Thus, the proposed Landscape Concept would have a beneficial impact on the SFVAMC Historic District.

The Landscape Concept applies to improvements that would occur outside of the Fort Miley Historic District's boundaries and would not introduce any significant visual, audible, and/or atmospheric intrusions. The Historic District would retain its character-defining features and continue to convey its significance. Therefore, no impact on the Fort Miley Historic District would occur.

Operation

Because operation of Alternative 1 near-term projects would not involve ground disturbance, vibrations, or permanent visual changes, no direct or indirect impacts on paleontological, archaeological, or historic resources would occur.

Long-Term Projects

Construction

Paleontological Resources

Despite being located in a different area of the existing SFVAMC Fort Miley Campus, Alternative 1 long-term projects would be underlain by the same Artificial Fill, Dune Sand, and Franciscan Assemblage as Alternative 1 near-term projects. Therefore, construction activities for Alternative 1 long-term projects would result in the same direct minor impacts on paleontological resources as those for Alternative 1 near-term projects.

Archaeological Resources

Ground disturbance activities for Alternative 1 long-term projects would have the same potential to damage or destroy presently undocumented significant archaeological resources and human remains as Alternative 1 near-term projects. Therefore, construction activities for Alternative 1 long-term projects would result in the same direct impacts on archaeological resources as those for Alternative 1 near-term projects. With implementation of Mitigation Measure CR-1, above, impacts would be reduced to a minor level.

Historic Resources

Alternative 1 long-term projects would involve the development and/or retrofitting of patient care, research, administrative, and ambulatory care structures on the existing SFVAMC Fort Miley Campus through 2023.

Alternative 1 long-term projects include five phases. Table 3.4-2 lists each phase of Alternative 1 long-term projects and the anticipated impact of that phase on the SFVAMC and Fort Miley Historic Districts.

Table 3.4-2: Phases of Alternative 1 Long-Term Projects and Impacts on the SFVAMC and Fort Miley Military Reservation Historic Districts

Phase	Action Proposed for This Phase	Description of Action	Within District Boundary?	Impact on SFVAMC District?	Impact on Fort Miley District?
2.1	Operating Room Expansion (D-Wing)	Construct an addition on Building 200	No	No	No
2.2	IT Support Space Expansion (Building 207)	Construct an addition on Building 207	No	No	No
2.3	Building 23 Mental Health Research Expansion	Construct three-story building behind Building 8	Yes	Yes	No
2.4	Building 40 Research and Seismic Retrofit of Buildings, 1, 6, and 8	Demolish Buildings 12, 14, 18, 21, and T-23 and complete seismic retrofit of Buildings 1, 6, and 8	Yes	Yes	No
2.5	Ambulatory Care Center	Construct four-story building	Yes	Yes	No

Source: Data provided by SFVAMC in 2012

Phase 2.1: Operating Room Expansion—D-Wing

Phase 2.1 would involve constructing an addition—a D-wing—on Building 200, which is located outside of and to the south of the SFVAMC Historic District’s boundaries.

Impacts of Phase 2.1 on the SFVAMC Historic District. The proposed development for Phase 2.1 would occur outside the SFVAMC Historic District and would introduce very minor new visual elements to the district, because it would be an addition of a single story to an existing building.

The construction would not substantially alter the existing scale and character of the SFVAMC Fort Miley Campus and would not detract from the SFVAMC Historic District’s location, design, setting, materials, workmanship, and feeling. The Historic District would still be able to convey its significance as an early standardized VA hospital, and as an early example of a federal building designed with seismically resistant building technologies and for its Mayan Art Deco style. Therefore, implementation of this component of Alternative 1 long-term projects would result in no direct or indirect impacts on the SFVAMC Historic District.

Impacts of Phase 2.1 on the Fort Miley Historic District. Construction activities for Phase 2.1 would occur outside of the boundaries of the Fort Miley Historic District; therefore, no direct impact would occur.

The project would not be visible from the Fort Miley Historic District, because it would be obscured by existing SFVAMC Fort Miley Campus buildings. The Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. No indirect impact on the Fort Miley Historic District would occur.

Phase 2.2: IT Support Space Expansion, Building 207

Phase 2.2 would involve constructing an addition on Building 207. Construction would occur outside of and to the south of the SFVAMC Historic District, which is oriented more to the north and facing San Francisco Bay.

Impacts of Phase 2.2 on the SFVAMC Historic District. The proposed Phase 2.2 development would be separated from the Historic District by existing modern construction; therefore, this component of Alternative 1 long-term projects would result in no direct or indirect impact on the SFVAMC Historic District.

Impacts of Phase 2.2 on the Fort Miley Historic District. Construction activities would occur outside of the boundaries of the Fort Miley Historic District; therefore, no direct impact would occur.

Under Phase 2.2, the project would introduce visual, audible, and/or atmospheric intrusions to the Fort Miley Historic District. However, these changes would be somewhat obscured by the tree canopy (including thick Monterey Cypress stands) along the western boundary of the Historic District. The proposed construction would be mostly shielded from view from Fort Miley by landscape and dense vegetation. The Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. Therefore, this component of Alternative 1 long-term projects would result in no indirect impact on the Fort Miley Historic District.

Phase 2.3: Building 23 Mental Health Research Expansion

Phase 2.3 would involve constructing a three-story building within the SFVAMC Historic District behind Building 8 (a contributor).

Impacts of Phase 2.3 on the SFVAMC Historic District. Planned Phase 2.3 development would alter the look and feel of the SFVAMC Historic District by introducing modern elements into a part of the Historic District that is mostly intact and features a high level of integrity of setting and design. The design, setting, and feeling of the district and its ability to convey its significance would be compromised through the introduction of new visual elements, which could be visually overpowering unless designed sensitively. Therefore, implementing this component of Alternative 1 long-term projects would result in a direct adverse impact on the SFVAMC Historic District.

No indirect impact on the SFVAMC Historic District would occur because the planned Phase 2.3 construction would occur within district boundaries.

Impacts of Phase 2.3 on the Fort Miley Historic District. Construction activities would occur outside of the boundaries of the Fort Miley Historic District; therefore, no direct impact would occur.

Under Phase 2.3, the project would introduce visual, audible, and/or atmospheric intrusions to the Fort Miley Historic District. However, these changes would be somewhat obscured by the tree canopy (including thick Monterey Cypress stands) along the western boundary of the Historic District. The LRDP proposes development along the border between East Fort Miley and the SFVAMC Fort Miley Campus under Phase 2.3; however, hospital facilities have been located along this border since 1934, and thus, the setting and association would not be substantively changed from current conditions. The Historic District would retain its character of location,

design, feeling, and setting and continue to convey its significance. No indirect impact on the Fort Miley Historic District would occur.

Phase 2.4: Building 40 Research Replacement Facility

Phase 2.4 would involve constructing a five-story building and demolishing Buildings 12, 14, 18, 21, and T-23. The planned construction would take place on the west side of the existing SFVAMC Fort Miley Campus, both within and immediately outside of the SFVAMC Historic District boundaries. With the exception of Building 18, these are all either outside of or noncontributors to the Historic District. Phase 2.4 would also include the seismic retrofitting of Buildings 1, 6, and 8.

Impacts of Phase 2.4 on the SFVAMC Historic District. Some of the proposed Phase 2.4 development would occur outside the SFVAMC Historic District and would introduce new visual elements to the district; therefore, an indirect adverse impact on the Historic District would occur.

Demolishing Building 18, completing a seismic retrofitting of Buildings 1, 6, and 8 (district contributors), and constructing a new building would alter the look and feel of the SFVAMC Historic District by changing the setting, design, materials, and feeling of the Historic District. These changes would affect the ability of the Historic District to convey its significance. Therefore, implementation of this component of Alternative 1 long-term projects would result in a direct adverse impact on the SFVAMC Historic District.

Impacts of Phase 2.4 on the Fort Miley Historic District. Construction activities for Phase 2.4 would occur outside of the boundaries of the Fort Miley Historic District. The project would introduce visual, audible, and/or atmospheric intrusions to the Historic District. However, the new location of the building would be mostly shielded from view from Fort Miley by dense vegetation and existing buildings. The building would also be located several hundred yards from the Historic District boundary. The Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. No indirect or direct impact on the Fort Miley Historic District would occur.

Phase 2.5: Ambulatory Care Center

The proposed development under Phase 2.5 would include constructing a five-story building with a basement in the northwest part of the SFVAMC Fort Miley Campus.

Impacts of Phase 2.5 on the SFVAMC Historic District. Phase 2.5 development would introduce a new visual element near the SFVAMC Historic District, but outside of the district boundary; therefore, an indirect adverse impact on the SFVAMC Historic District would occur.

The planned construction for Phase 2.5 would not detract from the SFVAMC Historic District's location, design, setting, materials, workmanship, and feeling. The Historic District would still be able to convey its significance as an early standardized VA hospital, and as an example of a federal building designed with seismically resistant buildings in the Mayan Art Deco style. Therefore, implementation of this component of Alternative 1 long-term projects would result in no direct impact on the SFVAMC Historic District.

Impacts of Phase 2.5 on the Fort Miley Historic District. Construction activities for Phase 2.5 would occur outside of the boundaries of the Fort Miley Historic District; therefore, no direct impact would occur.

The proposed Phase 2.5 construction would be mostly shielded from view from Fort Miley by existing buildings on the SFVAMC Fort Miley Campus, and by landscape and dense vegetation along the boundary. The Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. No indirect impact on the Fort Miley Historic District would occur.

Swing Space (Temporary)

Planned activities would take place on the west end of the SFVAMC Fort Miley Campus outside of the SFVAMC Historic District boundary, and to the rear of the Historic District.

Impacts of Swing Space (Temporary) on the SFVAMC Historic District. The planned addition of modular buildings would not detract from the Historic District's location, design, setting, materials, workmanship, and feeling. The Historic District would still be able to convey its significance as an early standardized VA hospital, and as an example of a federal building designed with seismically resistant buildings in the Mayan Art Deco style. Therefore, implementation of this component of Alternative 1 long-term projects would result in no indirect or direct impact on the SFVAMC Historic District.

Impacts of Swing Space (Temporary) on the Fort Miley Historic District. Construction activities for temporary swing space would occur outside of the boundaries of the Fort Miley Military Reservation Historic District; therefore, no direct impact would occur.

The Fort Miley Historic District would retain its character of location, design, feeling, and setting and continue to convey its significance. No indirect impact on the Fort Miley Historic District would occur.

Mitigation Measure CR-2: Adhere to the Secretary of the Interior's Standards for the Treatment of Historic Properties (Rehabilitation) to Reduce Impacts on the SFVAMC Historic District

VA will ensure that any alteration or renovation of buildings that contribute to the SFVAMC Historic District conforms to the Secretary of the Interior's Standards for Rehabilitation to minimize any physical alterations to the buildings' structure and appearance that may compromise their integrity and status as an eligible resource. New construction that would alter the setting of the SFVAMC Historic District will also take into account the Secretary's Standards. Treatment or design guidelines for the SFVAMC Historic District may be necessary to ensure that these standards are customized to reflect the historical character of the Historic District. (This mitigation measure will be updated to reflect the consultation with the SHPO and consulting parties taking place under Section 106 of the NHPA.)

Implementation of Mitigation Measure CR-2 would help reduce the severity of impacts of Alternative 1 long-term projects on the SFVAMC Historic District; however, the impact would remain adverse, because project construction would still result in demolition of contributors and densification of the SFVAMC Historic District.

Operation

Because operation of Alternative 1 long-term projects would not involve ground disturbance or vibration, no direct or indirect impacts on paleontological, archaeological, or historic resources would occur.

Alternative 2: SFVAMC Fort Miley Campus Plus Mission Bay Campus Alternative

Near-Term Projects

Alternative 2 near-term projects (including construction and operation) would be the same as those of 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 generally range in significance from minor to adverse with mitigation (Mitigation Measures CR-1 and CR-2).

Long-Term Projects

Alternative 2 long-term projects (both construction and operation) located at the 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 SFVAMC Fort Miley 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 at the potential new SFVAMC Mission Bay Campus from construction and operation of the ambulatory care center, research building, and associated parking structures proposed as part of Alternative 2, Phase 2.

Construction

Paleontological Resources

The potential new SFVAMC Mission Bay Campus is underlain by Artificial Fill, Dune Sand, and the Franciscan Assemblage geologic formation. Because of the young age of the Artificial Fill and Dune Sand, and the way in which the Franciscan Assemblage was formed, they are considered to be of low paleontological sensitivity. The result of a records search at the UCMP indicated that no fossils have been recovered from areas beneath the Mission Bay area. Therefore, construction activities at the potential new Campus would have a direct minor impact on unique paleontological resources. No indirect impacts would occur.

Archaeological Resources

It is currently unknown whether any historic properties are located within the potential new Mission Bay Campus area. Given the highly developed nature of this area, it is assumed to have a low sensitivity for subsurface prehistoric resources. The Mission Bay area's sensitivity for historic-era resources is also unknown. Should intact subsurface cultural deposits exist, project-related, ground-disturbing activities could result in direct adverse impacts.

The highly developed nature of the Mission Bay area makes pedestrian surveys and exploratory subsurface investigations difficult. To minimize effects on potential historic properties, Mitigation Measure CR-1 would be implemented. More specific mitigation measures would be developed in the future in consultation with SHPO, as warranted. Therefore, with implementation of Mitigation Measure CR-1 and (if necessary) other mitigation that

may be developed during future consultation with SHPO, construction activities at the potential new Campus would have a direct minor impact on archaeological resources. No indirect impacts would occur.

Historic Resources

Alternative 2 long-term projects would also involve developing a potential new SFVAMC Mission Bay Campus at an as-yet-unknown specific location. The eligibility status of buildings in the Mission Bay area is not currently known. Historic resources surveys for a potential new Campus site would be completed in conjunction with any future, project-level environmental review at the time a specific site or sites are identified.

Depending on where the project would be located and the results of the historic resources surveys conducted for project-level review, proposed development associated with a potential new SFVAMC Mission Bay Campus could occur close to historic resources that are 50 years old or older. Given the age of such resources, it is possible that they could be historically significant and eligible for listing in the NRHP. Proposed development could lead to physical demolition, destruction, relocation, or alteration of potentially significant historic resources. Because the significance of historic resources and their eligibility for listing in the NRHP is not currently known, the impact of a potential new Campus on historic properties could be adverse.

To minimize adverse effects on significant historic properties, avoidance would be first attempted or mitigation measures would include steps required to adhere to the *Secretary of Interior's Standards for Rehabilitation*, documentation, or interpretive programs. However, appropriate mitigation measures would need to be developed upon further consultation with SHPO, if necessary, and in conjunction with any future, project-level environmental review.

Operation

Long-Term Projects

Because operation of Alternative 2 long-term projects would not involve ground disturbance or vibration, no direct or indirect impacts on cultural or paleontological resources would occur.

Alternative 3: No Action Alternative

Near-Term and Long-Term Projects

Construction

Under Alternative 3, no ground-disturbing activities would occur in previously undisturbed locations. Therefore, no direct or indirect impacts on paleontological resources or archaeological resources would occur under this alternative. In addition, under Alternative 3, no new building construction or retrofitting of existing buildings would occur. As such, there would be no direct impact on the contributors to the SFVAMC Historic District. Because there would be no visual or atmospheric intrusion to the buildings or to the SFVAMC Historic District, no indirect historic resources impact would occur.

Operation

Under Alternative 3, the LRDP would not be implemented. Thus, no direct or indirect impacts on paleontological, archaeological, or historic resources would occur.

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