4.5 Cultural and Paleontological Resources

Cultural resources include historic-period resources (buildings, structures, objects, and districts), and prehistoric resources including archaeological resources, paleontological resources, and human remains. This section describes the cultural resources present in the vicinity of the proposed Project, evaluates the potential impacts of the Project on those resources, and describes mitigation measures to reduce impacts to a less than significant level. This section is based on the cultural resources investigations in the Project Area conducted on the County's behalf by Archives and Architecture in 2011 (Maggi et al., 2011).

4.5.1 Setting

Section 2.2, *Project Location*, provides general information about the Project's regional and local setting. This Section 4.5.1 provides setting information specific to cultural and paleontological resources.

4.5.1.1 Paleontological Setting

Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered nonrenewable resources because the organisms they represent no longer exist. The following sections discuss existing conditions with respect to paleontological resources in the Project Area.

Paleontological Assessment Standards

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources (SVP, 1995). Most practicing paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists and are the standard against which paleontological monitoring and mitigation programs are judged.

The SVP (1995) outlined criteria for screening the paleontological potential[1] of rock units and established assessment and mitigation procedures tailored to such potential. **Table 4.5-1** lists the criteria for high-potential, undetermined, and low-potential rock units.

[1] Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource.

TABLE 4.5-1
PALEONTOLOGICAL POTENTIAL CRITERIA

Paleontological Potential	Description
High	Geologic units from which vertebrate or significant invertebrate or plant fossils have been recovered. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.
Undetermined	Geologic units for which little to no information is available.
Low	Geologic units that are known not to have produced a substantial body of significant paleontological material.

SOURCE: SVP, 1995.

Paleontological Resource Potential

The fossil-yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. As discussed in Section 4.7, *Geology, Soils and Seismicity*, the Project Area is largely underlain by land previously disturbed by active mining in the Quarry pit, the placement of waste rock in storage areas (EMSA and WMSA), aggregate stockpiling, quarry operations areas such as the rock crusher, and a network of earthen access roads. Undisturbed areas within the Project Area are underlain by a combination of surficial deposits such as alluvium of Permanente Creek, colluvium that accumulates in hollows and swales, and native soils. Generally, for a fossil to have value as a cultural or scientific resource, it must be identifiable (diagnostic), and found in-place (*in-situ*). Thus, undisturbed sedimentary bedrock formations are generally the most likely settings for discovery of unique or significant vertebrate fossils. Human-placed fills, waste rock and aggregate product, as well as colluvial deposits and native soils overlying bedrock have a low potential to yield unique or significant fossils. In the Project Area, underlying the surficial materials are two bedrock formations, the Franciscan Complex and the Santa Clara Formation (see Section 4.7, *Geology, Soils, and Seismicity*).

Most of the Project Area is underlain by rocks of the Franciscan Complex (Cretaceous-aged greywacke and sheared rocks). There are no records of vertebrate fossils within the Franciscan Complex in the University of California Museum of Paleontology database (UCMP, 2010). Vertebrate fossils are rarely found in Franciscan bedrock due to its long history of shearing and deformation from tectonic processes and its deep-ocean origin. Any fossils originally present in rock units of the Franciscan Complex have generally been destroyed because they have been altered under high heat and pressures, chaotically mixed, or severely fractured. Thus, Franciscan Complex bedrock has a low potential to yield paleontological resources per Table 4.5-1.

A small portion of the Project Area is underlain by the Santa Clara Formation in the eastern portion of the EMSA. It is a sedimentary rock unit that is Pliocene (1.8 to 5.3 million years old) to Pliestocene (1.8 million to 10 thousand years old) in age has yielded fossilized plants and animals in other locations in the Bay Area. The University of California Museum of Paleontology database contains five records of vertebrate fossils that originated in the Santa Clara Formation,

including teeth and bone fragments from several extinct species of hoofed mammals (UCMP, 2010). The vertebrate fossil localities are not in close proximity to the Project Area, but include areas along Scott Creek east of Milpitas, a part of the Stanford Campus, and Anderson Lake east of Morgan Hill. Plant fossils found within the unit include petrified wood fragments as large as 60 centimeters (cm) in diameter at Coal Mine Ridge, South of Portola Valley, in the Santa Cruz Mountains (USGS, 2000). Fossil discoveries of this kind provide scientific value because they help establish a historical record of past plant and animal life and can assist geologists in dating rock formations. Because the Santa Clara Formation has yielded vertebrate fossils, it qualifies under the Society of Vertebrate Paleontology guidelines as a unit of high paleontological potential (Table 4.5-1).

4.5.1.2 Prehistoric Setting

Categorizing the prehistoric period into broad cultural stages allows researchers to describe a broad range of archaeological resources with similar cultural patterns and components during a given timeframe, thereby creating a regional chronology. This section provides a brief discussion of the chronology for the general vicinity of the Project Area.

A framework for the interpretation of the San Francisco Bay Area is provided by Milliken et al. (2007), who have divided human history in the San Francisco Bay Area into four broad periods: the *Paleoindian Period* (11,500 to 8000 B.C.), the *Early Period* (8000 to 500 B.C.), the *Middle Period* (500 B.C. to A.D. 1050), and the *Late Period* (A.D. 1050 to 1550). Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

Evidence of human habitation during the *Paleoindian Period* (13,500 to 10,000 before present [B.P.]), characterized by big-game hunters occupying broad geographic areas, has not yet been discovered in the San Francisco Bay Area. During the *Lower Archaic* (10,000 to 5500 B.P.), geographic mobility continued from the *Paleoindian Period* and is characterized by the millingslab and handstone as well as large wide-stemmed and leaf-shaped projectile points. The first cut shell beads and the mortar and pestle are documented in burials during the *Early Period* (*Middle Archaic*; 5500 to 2500 B.P.), indicating the beginning of a shift to sedentism. During the *Middle Period*, which includes the *Lower Middle Period* (*Initial Upper Archaic*; 2500 to 1570 B.P.), and *Upper Middle Period* (*Late Upper Archaic*; 1570 to 950 B.P.), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich-black middens (indicating long periods of occupation) are recorded from this period. The addition of milling tools, obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the *Upper Middle Period*, mobility was being replaced by the development of numerous small villages. Around 1570 B.P. a "dramatic cultural disruption" occurred evidenced by the sudden collapse of the *Olivella* saucer bead trade network. During the *Initial Late Period* (*Lower Emergent*; 950 to 450 B.P.), social complexity developed toward lifeways of large, central villages with resident

political leaders and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

4.5.1.3 Ethnographic Setting

The Project Area is within the traditional territory of the Costanoan or Ohlone people (Levy, 1978:485–495). These people were collectively referred to by ethnographers as Costanoan, but were actually distinct sociopolitical groups that spoke at least eight languages of the same Penutian language group. The Ohlone occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs. The Project Area is in the greater *Ramaytush* tribal area occupied by the *puyšon* group (Levy, 1978:485).

Economically, the Ohlone engaged in hunting and gathering. Their territory encompassed both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bear, deer, elk, antelope, a variety of bird species, and rabbit and other small mammals. The Ohlone acknowledged private ownership of goods and songs, and village ownership of rights to land and/or natural resources. They appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads, and even shooting trespassers if caught. After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement.

Native American Contact

PBS&J (2007) and Jensen (2009a) contacted the Native American Heritage Commission (NAHC) regarding the Sacred Lands File for the Project Area. The NAHC provided a list of Native American tribes and individuals who may have an interest in the Project Area. Each individual on the list was contacted by letter. One response was received by PBS&J in 2007. Ann Marie Sayers, Chairperson of the Indian Canyon Mutsun Band of Costanoan, expressed concerns over activities in the Project Area, specifically near Permanente Creek. She requested that an archaeologist and a Native American monitor be present during ground-disturbing activity along Permanente Creek (PBS&J, 2007).

4.5.1.4 Historic Setting

The property history has been adapted from Maggi et al. (2011). For information on the early historic-period including the first Euroamerican exploration in the region; the Spanish, Mexican, and Early American-periods; Horticultural Expansion; the Interwar Period; the Industrialization and Suburbanization Periods, a Mining History of Santa Clara County; and a biography of Henry J. Kaiser, please see Maggi et al. (2011) included as Appendix D, *Cultural Resources*. References in the following section are also included in the Maggi et al. (2011) report.

Property History

Early History Prior to Permanente Facilities

The western foothills of the Santa Cruz Mountains above present-day Cupertino were considered rough and unfit for cultivation when they were first surveyed by the United States General Land Office (GLO) in 1866. The 1876 *Thompson & West Atlas* 10 years later still labels parts of the subject property as "unsurveyed," despite the fact that some parcels had owners of record. The subject property is located within Township 7 South, Range 2 West, covering some or all of the area of Sections 16, 17, 18, 19, 20, and 21.

In 1859 George and Frank Grant purchased over 350 acres in Fremont Township, in the foothills along the Permanente Creek, and resided there until the early twentieth century. Early land records indicate that in 1867 Frank Grant purchased 118.67 acres of the southeast quarter of the southwest quarter in Section 18 (in the Quarry area). It is possible that what is known today as the Henry J. Kaiser Cabin and Accessory structure located along the banks of the Permanente Creek adjacent the Quarry is connected to the ownership of part of Section 18 by the Grant brothers. Therefore, it is possible these cabins date to the late-1850s or 1860s. An 1883 survey by the GLO does not show standing structures on Grant's land along Permanente Creek, although other cabin locations are evident nearby, including one located south of Permanente Creek at the west end of Section 18.

By 1890, the land upon which the Henry J. Kaiser Cabin stands was owned by Revillo Appleton Swain and his wife Alice H. Swain. In 1890 Revillo Swain is listed in a local directory as being a farmer in Cupertino, but most other records from the 1860s through 1900 show him as a resident of San Francisco. It is not known when Grant sold the property to the Swains, although it appears to have occurred sometime between 1880 and 1890.

By 1902, County Tax Maps show W.W. Brirer owned the southeastern quarter parcel of Section 18. The Alameda Sugar Company purchased the parcel shortly thereafter. A May 23, 1903 article in the *San Jose Mercury News* entitled "Santa Clara County Lime Industry Growing" states that during the past year production of limestone in the County has increased rapidly due to mining along the Permanenta (sic) Creek. The article states the mining is occurring "where a huge landslide occurred many years ago, thousands of tons of lime rock were exposed to view. This site was located on the Swain property, a few miles up the main stream of the Permanenta (sic) above the John Snyder farm.

The limestone quarry, located in the southeast quarter section of Section 18 and the southwest quarter section of Section 17, provided high-grade limestone ideal for use in sugar refining. It is not known when the Alameda Sugar Company ceased mining operations at the site, although it can be assumed that the company continued through the late-teens and into the early 1920s. The Santa Clara Holding Company began operating the quarry in the early 1930s.

John R. McCarthy was another one of the subject property's early Santa Clara County homesteaders. A native of Ireland who came to San Jose in 1876, McCarthy began his new life in America by picking cherries for $1.50 a day. By the early 1880s, he was renting a ranch on

Permanente Creek, and in 1882 he took a homestead option on 160 acres in the foothills above Cupertino, on the northwest quarter section of Section 20 within T7S, R2W. McCarthy Road, which traverses Sections 17 and 20 on the subject property, is named for this early homesteader. The origins of the homestead site recorded in this survey and located in Section 20 make it most likely connected with McCarthy, according to a Deed dated August 16, 1890 (SCC Deeds 128, Page 616) from Henry K. Jackson to McCarthy. It is known that Henry Jackson resided and worked in Oakland at this time, so John McCarthy most likely rented the land from Jackson, and constructed any buildings on the parcel, and finally purchased/recorded his ownership of the parcel in 1890 despite his occupation of the land sometime in the 1880s (the Deed also makes a reference to buildings being located on the parcel although a description is not given). According to County Tax maps, McCarthy retained ownership of at least three quarters of this quarter section through the early twentieth century. Two structures on the homestead site are visible on the 1899 USGS map, and their remnants remain extant on the site today, in addition to an olive and walnut trees and wire fencing.

The western half of the McCarthy quadrant was purchased by George Campbell (although Campbell may have occupied part of, or the entire McCarthy parcel beginning around 1895) from John R. McCarthy on September 16, 1905 (SCC Deeds 297, Page 636). The land remained in the Campbell family until it was sold by the Estate of Sena Campbell to the Kaiser Cement & Gypsum Corporation in 1969 (SCC OR 8757, Page 470). The property rights included the right-of-way for the wagon road easement through the property.

The eastern half of the McCarthy quadrant of Section 20 was occupied by J. Bernard (in addition to George Campbell) perhaps as early as 1895, although McCarthy is still recorded as the owner of the entire parcel through at least 1902.

The northeast quarter section in Section 20 (directly east of the homestead site) was first recorded as belonging to the CPRR in 1865, and then Henry Kennedy Jackson in 1886. The 1890 Santa Clara County Tax Map still lists Henry Jackson as the owner of the quarter section, but an 1895 McMillan Survey Map shows the section had been divided into two 83-acre sections, running width-wise at an angle across the section, with the northern half of the quarter section owned by A.S. Spence, and the southern half of the quarter section owned first by P.J. and then J.R. Kenna. Kenna also owned the nearly 160-acre southeast quarter section of Section 20 connected to the southern half of the northeast quarter section. Just to the south of McCarthy Road, an orchard is recorded in the 1895 survey on the Kenna property. The survey also records multiple structures probably associated with the orchard, as well as the structure known as the Sugar Shack. The remnants of this building are still extant on the site today. The Kenna lands were eventually sold to Blanche K. Rouleau (later Morris) sometime after 1914. Morris then sold the property to the Permanente Corporation in 1942 (SCC OR 1103, Page 591).

John Snyder was another early settler who came to the area and owned part of the subject property. Snyder initially came to California to try his luck at gold mining. By the late-1850s, he had settled near Permanente Creek and purchased much of the San Antonio Rancho. Snyder's extensive lands were eventually bought by Kaiser Permanente, Maryknoll, Gates of Heaven

Cemetery, Interstate 280, and Mid-Peninsula Parks. The house Snyder constructed for his daughter as a wedding present around 1881 still remains near the Gates of Heaven Cemetery entrance.

John Snyder owned the northeast quarter section of Section 17, which was a part of the first purchase Permanente Corporation made from Santa Clara Holding Company in 1939 (SCC OR 942, Page 290). The land purchased from Santa Clara Holding Company also included the parts of Section 16 not within the boundaries of San Antonio Rancho, as well as the northwestern quarter section of Section 21. Deeds indicate that Santa Clara Holding Company assumed ownership of the various parcels in 1933. When Henry Kaiser (who had been searching for a limestone source in the area) realized how abundant the limestone vein was, the Henry J. Kaiser Company signed a Use Permit and Lease and Option to Purchase agreement for the limestone quarry.

Permanente Cement Plant – Construction

In 1939, Kaiser lost the bid for the construction of Shasta Dam by bidding with a consortium of builders called the Six Companies who his company had worked with on other New Deal projects. In order to win the supplier contract for the cement, he ventured out without the full consent of the Six Companies to underbid the reigning cement monopolies. These cement monopolies had been winning much of the supplier contracts in the United States and abroad. Kaiser was determined to undercut the cost and win the contract. He secured the bid to supply sand and gravel for the dam. To provide the low bid of $1.19 a barrel of cement at Shasta Dam, Kaiser needed to produce cement under his own business model. Acquiring a cement plant was of paramount necessity to be successful in the Shasta Dam project. Although Kaiser was well versed in the sand and gravel business, he lacked knowledge of cement production. He instructed his key engineering people to study cement manufacturing techniques and to locate a property containing adequate amounts of high-quality limestone. Drilling at Permanente Canyon found enough limestone for the project and an anticipated production life-span of 50 years.

During initial construction of the Shasta Dam, sand and gravel was extracted from Kaiser-owned pits near Redding, about 10 miles from the dam site. Moving of material during this period was generally accomplished by railroad, however, Kaiser ran into costs that were prohibitive and decided to exclude the railroad from the project. Instead, an ‘ingenious’ conveyor belt was built to move the sand and gravel to the construction site. This conveyor belt was built 1,500 feet up a mountain and down the other side and moved 1,000 tons of material in an hour. It proved cheaper than using the railroad and the technology was subsequently transferred to the Permanente Cement Plant where a large conveyor belt system was developed in the early 1940s to transfer rock from the quarry to the crushers and cement plant.

On May 8, 1938 Santa Clara Holding Company, Ltd, and Henry J. Kaiser Company signed a Use Permit and Lease and Option to Purchase agreement to erect, construct and operate a cement mill and storage facility. The 1,300-acre site was legally described as Sections 16, 17, 18 and part of part of Section 20, T7S, R2W (Use Permit File No. 173.23). On February 13, 1939 the Amended Articles on Incorporation for Permanente Corporation were filed in the office of the Secretary of

State of California along with by-laws and election of officers. On July 10, 1939 Santa Clara Holding Company formally transferred title of the land to Permanente Corporation (SCC OR 942, Page 290). Santa Clara Holding Company sold the property to Permanente Corporation for the sum of $235,000. By 1942, the site would quickly become the largest cement manufacturing plant in the world and was also regarded as one of the most efficient.

Kaiser began work at the site in June 1939 with a bank loan of $3 million to finance the building of the Permanente plant. By Christmas of that year, the plant had produced its first bag of cement. The initial construction included a two-kiln plant, processing and storage buildings and a two mile conveyor belt. “A giant power shovel scoops up the raw material, six tons to the bite, and dumps it into crushers that feed a two-mile conveyor belt which carries the material by gravity down to the plant in the canyon. The brakes on the steeply inclined belt are generators which produce the power needed to harvest the limestone.” At the cement plant, Kaiser continued to use the conveyor belt technology that was developed at Shasta Dam for moving limestone down to the mill. The original conveyor belt began at what was initially known as the Upper Quarry and ended at the west side of the mill site where two stockpile sites were established. By the time a survey was made of the quarry in 1942-1943, the conveyor system had two long legs: 1) the original conveyor extending from the terminus northwesterly about 1,300 and then westerly about 2,500 feet to a crusher at the northeast corner of the Upper Quarry (no longer extant); and 2) a second conveyor extending slightly south of westerly through a 560 foot tunnel, 4,500 feet total, to a crusher near Permanente Creek. The second conveyor was completed by mid-1943, and included two extensions northward from the Lower Quarry to crushers mid-way to the Upper Quarry. It is not known if the two-mile long conveyor mentioned in the 1941 article included the portion through the tunnel, although a 1943 article mentioned that the tunnel had just been completed at that time. It was claimed the 48-inch belt moved 1,000 tons of material in an hour. Limestone was quarried from up to 2 miles back in the hills and then cascaded off the end of the conveyor belt into the backyard of the plant. Once in the yard, the limestone is crushed and powdered, turned into cement, sacked, or sent directly into boxcars.

In 1943, the Permanente Cement plant formally established a post office at the plant with the new address of Permanente, California. During this year the name of the company was changed to Permanente Cement Company. In the 1944 edition of *Permanente News* and the 5-year anniversary of the founding of the company, the firm reflected on the construction of the site “The accomplishment represented a period of feverish construction with men and machine gnawing at the very foundation of Black Mountain to build roads, flatten hilltops, and erect the giant of the cement industry. Mighty rotary kilns were hauled in sections up precipitous roads in some of the most spectacular feats of modern engineering. One of the major operations was excavation of hundreds of thousands of yards of earth. Countless equipment of a specialized nature was used in dirt moving-shovel kippers, dragline buckets and bulldozers.”

Shipments were moved out of the plant via railroad which paralleled the side of the plant. The railroad was constructed 1939-1940 to move the quarried material to be shipped. In late 1941, an agreement was signed between Permanente Corporation and the SPRR Company to extend the railroad into the Quarry (SCC OR 1087, Page 157). This railroad was served by 1,200 freight cars

per month. SPRR owned three transfer tracks east of the plant, while Permanente owned a network of 10 tracks inside the plant operated by two locomotives. Each day, two SPRR trains steamed into the yard to pick up freight cars of material to be delivered. By 1941, a fourth kiln was installed which one article noted "will make the mill the fastest producing cement plant in the country". By 1947, the conveyor belt had been lengthened by 2 miles and "after induction motors start the conveyors, generators driven by gravity flow supply enough electricity to operate a five-yard shovel in the quarry".

Various articles note that when Permanente Cement Company purchased the property there was an extant stone and redwood building that was renovated as a lodge and that Kaiser built a road to the site from the plant. This building is now in ruins and is known as the Henry J. Kaiser Cabin. It is located southwest of the Quarry pit on the north side of Permanente Creek and what was once Permanente Road.

Permanente Cement Corporation was supplying not only Shasta Dam, but Navy construction sites in Hawaii, Guam, and Wake Island. Company owned ships, the S.S. Philippa and the S.S. Permanente Cement, carried bulk cement shipments into Hawaii and the Pacific. Transporting bulk cement in the hulls of the shipping boats would lead Henry J. Kaiser into a new endeavor, the shipbuilding business and establishing of the Kaiser Shipyards in Richmond, California. Kaiser was constantly expanding the capacity of the companies he operated into new areas, mostly associated with government construction contracts or materials supply for building and transportation, particularly during World War II. After initial construction of the cement plant, the Permanente Cement Corporation constructed a magnesium processing plant on the site.

Magnesium Plant

Covering 30 acres of land, the Magnesium Plant was constructed in 1941, adjacent to the Cement Plant. Kaiser was interested in a myriad of different materials, including light metals that could be used for the production of war-related items such as airplanes, jeeps and automobiles. Kaiser also thought the light metals could be used as a building material. Initially, choosing aluminum to produce, he was set back by government regulations and rival aluminum manufacturer, Alcoa. In an attempt to meet the increasing demand for light metal, Kaiser chose a different material – magnesium – which could be used for aircraft, as well as an incendiary product. Germany produced most of the magnesium products at that time. In the United States, Dow-American Magnesium had a corner on the market. Kaiser utilized a new untested process by which to refine magnesium and hired the inventor of the process to oversee operations. Backed by the Todd California Shipbuilding Company, Kaiser constructed a magnesium refinery in 1941 adjacent to the cement plant. Although brucite (the raw material used to make magnesium) was not readily available nearby, the material was shipped from Nevada to the plant in Cupertino. At the Magnesium Plant, existing piped gas was used for a dual purpose. The cold gas shot through the magnesium kilns to form the metal, and then again was used for the cement operation to burn limestone in the kilns. The magnesium fabrication also produced "goop," an incendiary bomb material which was eventually used in the final air attack on Japan in World War II.

The magnesium was produced under the company name of Permanente Metals. In 1943, Permanente Metals opened a plant in Natividad, Monterey County that processed pure white dolomite into magnesium. Magnesium production was somewhat volatile and not as successful as had anticipated. By 1947, the production of magnesium had ended and the company entered into the production of aluminum on the site backed by a loan from the Reconstruction Finance Corporation. Henry J. Kaiser was interested in using aluminum for boats, as well as a building material, particularly in geodesic domes which he hoped would expand the demand for aluminum. The predominant manufacturing site for aluminum for Permanente Metals was in Mead and Trentwood, Washington State. It appears the facility at Permanente Quarry was used mostly for the production of aluminum foil. In 1949, the company name was changed to Kaiser Aluminum & Chemical Corporation. Demand for aluminum increased during the Korean War and the company met the challenge to increase aluminum output which occurred mostly at a large plant in Louisiana. It is during this time that aluminum began to be used as a building material on large office buildings. At the Permanente Quarry site a new foil mill was installed in 1950 for the manufacturing of aluminum foil. Aluminum extruded products were manufactured at the site until 1990, when the plant was closed. Aluminum production would ultimately be the most profitable of all the companies started by Henry J. Kaiser, including those in the steel, cement, and gypsum industries.

Permanente Cement Plant – Production

In early 1941, the capacity of the Permanente Cement plant was 12,000 barrels. The capacity was increased to 16,000 barrels in late 1941 - at the beginning of the war with Japan. In 1942, the production record of 5,066,060 barrels was reached. That year's level of production made the Permanente plant the largest cement plant in the world at the time, and remained the company record for most cement produced in a year. As reported in the 1943 issue of the *Permanente News*, the catalyst for achieving this record was the bombing of Pearl Harbor on December 7, 1941 and an increase in the need for cement to fortify the Pacific Island bases. The two freighters, S.S. Permanente and S.S. Philippa were converted to bulk carriers to ship the large amounts of concrete from Redwood City to Honolulu during the war. By 1943, capacity was again increased and the plant was producing 500,000 barrels or two million sacks of cement. In one year, the quarry moved 1,500,000 tons of limestone downhill to the processing plant with a staff of 19 men. By 1945, war orders by Navy and Army contracts had put cement production into overdrive as over 18,000 barrels of cement was shipped daily. High quality raw materials and new facilities peaked production. New facilities included four coolers for the four kilns, an additional kiln fed slurry tank, new clinker conveying and crushing facilities, additional cement pumping equipment under the storage silos, and enlargement of the packhouse. The packhouse addition consisted of a four-compartment, 5,000 barrel packer bin which helped control the 17 types of cement being produced at the site. The 17 different types of cement included: Standard Portland, Modified Portland, Hi-Early Strength, Low Heat, Sulphate Resisting, Plastic, Concrete Pipe Cement, three types of oil well cement, Plastite, and Brick Mix. Permanente Cement furnished the entire 6,800,000 barrels of cement used for Shasta Dam and by the end of World War II, had filled major government contracts for $25,000,000. During World War II, production increased as demand grew and many women joined the Permanente workforce as men

went off to war. By 1947, Permanente Cement took over operation of plants in Seattle, Merced, and Redwood City, as well as Honolulu, Hawaii.

By 1949, the plant produced 1.1 million tons of cement a year and Permanente's reach continued to expand with new distribution facilities in the Pacific Northwest. As the West began to grow after World War II, the demand for cement for new construction increased. Reinforced concrete was also in high demand for commercial and industrial uses. Cement continued to be utilized in large public work projects, such as dams and highways. Cement maintained a stable pricing level during the ten years after 1939, while other building materials costs increased due to inflation. By 1949, Permanente sold 8 to 10 percent of the cement produced in the United States and was second only to Atlas Portland Cement.

The 1950s were an era of expansion for Kaiser Permanente Cement with distribution and manufacturing plants being constructed or acquired throughout the west coast, including the Olympic plant in Bellingham, Washington and Cushenbury plant in Southern California. By 1951, five kilns were in operation at the Permanente Cement Plant increasing the annual output to 7,000,000 barrels. (Division of Mines: 365) In 1956, a sixth kiln was added which increased production by 20 percent and an aggregate plant was installed to supply material for highway construction.

By the end of the 1950s and into the early 1960s, the distribution of cement products widened as the company constructed plants in Honolulu and acquired interest in cement plants in Japan (Okinawa), Thailand and in the Southwest United States, merging with Longhorn Portland Cement Company in Texas. In 1964, Kaiser Gypsum was manufacturing wallboard and other gypsum products and with new plants in the East, the company named changed to Kaiser Cement and Gypsum Corporation. At the Permanente Cement Plant, kilns were made more efficient and a rod ball mill was added to the plant for raw grinding. On August 24, 1967, Henry Kaiser died in Honolulu, Hawaii.

In the 1970s, environmental concerns weighed heavily on the company and some of the processes in place for many years were changed to accommodate the shortage of fuel and natural gas. This included replacing the six kilns with a single dry-process kiln, which was more cost effective and environmentally sound. In early 1970s, construction began on the Preblend Dome, now a commanding feature on the Quarry landscape. In the 1980s, rebuilding of the plant began as a kiln and raw grinding mill were completely rebuilt. In 1981, the six old kilns were shut down. The two 220-foot concrete stack kilns were demolished in 1982. In 1986, Kaiser Cement was purchased by the British firm, Hanson PLC. By 1989, the plant supplied nearly one-third of the all the cement used in California. Improvements continued at the plant, including installing computerized systems to increase efficiency and a rock plant was constructed to convert excess mining rock into washed concrete aggregate. In the 1990s, Hanson Permanente Cement supplied the cement and aggregate for the construction of nearby Highway 85. In 2007, Heidelberg Cement purchased Hanson PLC and the Permanente plant was merged with Heidelberg's Lehigh Cement companies and renamed Lehigh Southwest Cement Company, Permanente Plant.

4.5.1.5 Summary of Research

A records search was conducted in 2008 by Sean Michael Jensen for Lehigh Southwest Cement Company at the Rohnert Park Northwest Information Center (NWIC) for both recorded prehistoric and historic sites and field surveys within or near the subject property (Jensen, 2009a). This records search identified four prior investigations, including included Holman (1983 and 1988), Ruth and Going (1984), and PBS&J (2007).

The Ruth and Going report (1984) reviewed archival information and included a limited field investigation. Conducted for the County of Santa Clara, Ruth and Going identified an early road that had potential historical significance. This site feature was subsequently recorded in 2007 by Jurich and Grady.

The 2007 partial survey by Jurich and Grady was conducted for the County of Santa Clara, and included intensive-level investigations into selected sites within or immediately adjacent the active quarry. Jurich and Grady prepared DPR523 series forms that record the Henry J. Kaiser's Cabin and Accessory Structure, Hanson Permanente Quarry Pumphouse, Permanente Creek Road and Permanente Creek Road Retaining Wall, and identified a historic district – the Kaiser Permanente Quarry District. Jurich and Grady found the Henry J. Kaiser's Cabin and Accessory Structure, and the Kaiser Permanente Quarry District eligible for listing in the National Register of Historic Places (National Register).

In 2008 and 2009, Sean Michael Jensen conducted a survey and inventory for Lehigh Southwest Cement Company. Jensen reviewed prior surveys and recordings, and conducted a field survey of the site. In his findings, Jensen disputed the evaluation of Jurich and Grady on eligibility of the area as an historic district (Kaiser Permanente Quarry District) and stated that the site and features are ineligible for the National Register due to a general lack of integrity related to their historic period of significance. Jensen stated that the Hanson Permanente Quarry Pumphouse and the Permanente Creek Road and Permanente Creek Road Retaining Wall are ineligible for listing in the National Register. Jensen did not re-evaluate other resources recorded by Jurich and Grady, such as Kaiser's Cabin and Accessory Structure. Jensen also surveyed and evaluated additional potential resources south of Permanente Creek. Jensen identified three potential resources: 1) Cherry Orchard; 2) Sugar Shack; and 3) Homestead. These resources were considered ineligible for listing in the National Register. Jensen did not evaluate these potential resources under the criteria for listing in the California Register of Historical Resources (California Register) or the County of Santa Clara Historic Preservation Ordinance.

The buildings and sites within the project boundaries were examined in September 2011 by Franklin Maggi, Sarah Winder, and Jessica Kusz of Archives and Architecture, under contract for the County of Santa Clara. The site investigation was limited to previously-identified resources and sites within the Project Area. Identification and access to some of the sites was limited due to the terrain and overgrowth. Maggi et al. prepared notes on the architecture and characteristic features of the buildings and structures, and the setting. Photographs of the exteriors of the buildings and structures, and views of the related setting were taken where feasible.

A summary of the resources within and surrounding the project boundaries is provided below in **Table 4.5-2**.

TABLE 4.5-2
CULTURAL RESOURCES IN THE PROJECT AREA VICINITY

Name	Designation	Resource Type	Originally recorded by	Previous Eligibility Determination	Resource Location
Kaiser Permanente Quarry Mining District	P-43-001867	District	PBS&J 2007	PBS&J – eligible Jensen – not eligible Maggi et al. – eligible	RPA Footprint
Permanente Creek Wagon Road (contributing feature)	P-43-001868	Structure	PBS&J 2007	PBS&J – eligible Jensen – not eligible Maggi et al. – eligible	PCRA Treatment Area
Henry J. Kaiser's Cabin (contributing feature)	P-43-001869	Building	PBS&J 2007	PBS&J – eligible Jensen – not eligible Maggi et al. – eligible	PCRA Treatment Area
Hanson Permanente Quarry Pumphouse (non-contributing feature)	P-43-001870	Structure	PBS&J 2007	PBS&J – not eligible Jensen – not eligible Maggi et al. – not eligible	Buffer Zone
Railroad Segment (contributing feature)	CA-SCL-878H	Structure	Jensen 2008	Jensen – eligible Maggi et al. – eligible	East of EMSA
Cherry Orchard	CA-SCL-882H	Site	Jensen 2009b	Jensen – not eligible	Exploration Area
Sugar Shack	CA-SCL-883H	Building	Jensen 2009b	Jensen – not eligible	Exploration Area
McCarthy Homestead	CA-SCL-884H	Building	Jensen 2009b	Jensen – not eligible	Exploration Area

Resources on South Side of Permanente Canyon in the Exploration Area

McCarthy Homestead (CA-SCL-884H)

This early ranch site first owned by homesteader, John R. McCarthy, is located on the south side of Permanente Canyon, on the south side of an unimproved access road that originates at the southwest corner of the Permanente aggregate facility south of the cement plant. The site was recorded by Sean Michael Jensen (Genesis Society) in 2009 (CA-SCL-884H). The site is composed of two separate features which contain debris piles of two buildings.

In the late-nineteenth century, the McCarthy ranch was about 150 acres. The size of the ranch was later reduced to about 112 acres. The 1948 USGS aerial photograph of the site shows two buildings associated with the McCarthy ranch. Two building sites were identified and described by Jensen that are located about 100 feet south and above the road in a terrace. Both building pads are about 65 feet in length, and vary in width from about 25 to 30 feet. The site contains debris piles, some short lengths of wire fencing, and non-native trees (olive, English walnut and plum). Today the area consists of chaparral and some non-native vegetation remaining from the

residential occupation. The main access road, referred to in the Jensen evaluation as "Sugar Shack Road," was originally called "McCarthy Road" and provided access to the ranch site.

Kenna Orchard/Ranch (CA-SCL-882H and CA-SCL-883H)

This large ridge-top agricultural site is located on the south side of Permanente Canyon on both sides of an unimproved access road that originates at the southwest corner of the Permanente aggregate facility, south of the cement plant. The Kenna Orchard/Ranch was partially recorded by Sean Michael Jensen (Genesis Society) in 2009 as two separate sites: Cherry Orchard (CA-SCL-882H) and Sugar Shack (CA-SCL-883H). The original agricultural property was approximately 238 acres at the time of initial development in the late-nineteenth century and was later expanded westward approximately another 40 acres. Today, the area consists of chaparral and non-native vegetation remaining from the agricultural and residential occupation. Access roads transverse the site, some appear to date to the late-nineteenth century development of the hillside, and others appear contemporary and relate to testing pads at the Lehigh Southwest operations. The main access road, referred to by the Jensen as "Sugar Shack Road," was originally called "McCarthy Road" and provided access to both the site and the McCarthy Ranch further to the west.

Historical research indicates that P.J. Kenna first owned the orchard and ranch on the site sometime in the early 1890s. The 1895 Survey Map records an orchard on the Kenna property, just south of McCarthy Road, as well as multiple structures probably associated with the orchard (most likely a residence), as well as a structure identified by Jensen in 2009 as the "Sugar Shack." A 1948 USGS aerial photograph of the site appears to show three building sites associated with the Kenna ranch. Two collapsed buildings were identified and described by Jensen (extant to the north of the road). Associated with this structure is an ancillary building (described by Jensen as being to the west and about 20 feet in length by 12 feet wide) and two large non-native trees (cedar and walnut). The structures are described as having post and beam foundations, and are believed to be built of stud wall construction clad with board and batten siding. Today, the "Sugar Shack" site consists of what appears to be two single-story wood buildings that are inaccessible, as the structures are overgrown with Poison Oak. North of the road, a turnoff contains the remains of an early truck body and frame that was identified by Jensen during his archaeological Inventory Survey report prepared in October 2009 subsequent to the site historical recordings.

Above these building sites and road was once a large orchard that extended across the bluff and onto its south side. Jensen identified the remains of this orchard as "Cherry Orchard," and recorded the remaining evidence of the agricultural use as five cherry trees within an area of about 200 feet in length (east-west), a maximum width of 50 feet, and covering about 9,000 square feet. The 1948 USGS aerial photograph shows most of the early 1890s orchard intact at that time, but mid-twentieth century aerial photographs do not show evidence of this agricultural site.

Evaluation of Resources on South Side of Permanente Canyon

The two early agricultural/horticultural sites (McCarthy Homestead Site and the Kenna Orchard/ Ranch) have been abandoned since the mid-twentieth century. Today, little evidence remains of their early occupation and use. The people associated with these sites have been researched, but

none appear within local histories for their significance contributions. The remaining remnants of their habitation lack distinction, or have been lost in time. These two sites are not eligible for listing in the California Register and do not appear to qualify as historical resources.

Resources in RPA Footprint, PRCA Treatment Areas, and Buffer Zone

Kaiser Permanente Quarry Mining District (P-43-001867)

Engaged by the County of Santa Clara in 2007, Jurich and Grady identified a potential historic district at Permanente Quarry. Jurich and Grady recommended the boundaries of the potential historic district to include the extent of the Permanente Quarry site, as well as eligible elements Henry J. Kaiser's Cabin and Accessory Structure, and Permanente Creek Road and related Retaining Wall. In addition, Jurich and Grady identified important elements of the setting including intact vegetation communities such as oak woodland, oak savannah, woodland/ chaparral, and chaparral, and Permanente Creek, a perennial stream located along the southern boundary of the Permanente Quarry site.

Jurich and Grady also investigated and recorded the related Pumphouse located between the main pit and the cement plant and determined it not eligible.

Boundaries of the potential historic district as outlined by Jurich and Grady were investigated as a part of the Maggi et al. 2011 investigation and evaluation. Maggi et al. also recorded the primary remains of an early 1940s rock conveyor system built during the early 1940s, as well as railroad segment and shed. A portion of the original conveyor system continues to operate today for the transport of raw material to the processing facility. The railroad segment includes areas where products of the quarry and cement plant are loaded for shipment. Permanente Quarry has continued to evolve over the last 72 years under Kaiser's companies and subsequent owners and contains a large modern cement plant as well as some remaining structures from the early cement, magnesium, and aluminum manufacturing facilities.

Permanente Railroad Segment and Dinky Train (CA-SCL-878H)

The Permanente Railroad segment is a contributing feature to the Kaiser Permanente Mining District. The railroad parallels the southeast side of the EMSA (Aluminum Plant) and enters the quarry operations as it crosses Permanente Road. The railroad segment ends at the train shed located at the base of the aggregate facility. The Permanente Railroad segment was originally constructed circa 1940 and was composed of a network of 10 tracks inside the plant, which was served by two locomotives. SPRR Company owned the three transfer tracks and a station just outside of the cement plant that connected with the Permanente rail segment. Here, freight cars would pick up material at the cement plant, which then would be distributed via rail to various destinations.

The "dinky train" (a narrow-gauge supply railroad) that presently is operational within the railroad segment is considered part of the Permanente Railroad Segment.

Permanente Quarry Conveyor System and Crusher

The rock conveyor system and crusher are contributing features to the Kaiser Permanente Mining District. The system was developed during the first four years after the establishment of operations at the Permanente Quarry in mid-1939. The conveyor started as a rock crusher at the site of the original Upper Quarry, and dropped the material by gravity down an incline to the east and southeast to the stockpiles. By 1943, the conveyor system had been expanded westward through a 560-foot tunnel to the southwest, originating from a crusher near Permanente Creek near the Lower Quarry. The conveyor branched out northward from this location and ultimately extended for two miles. The 48-inch belt of the conveyor initially was claimed to be able to move 1,000 tons of material in an hour. According to historic accounts, the original conveyor contained brakes that generated power needed to harvest limestone. It appears that the inline shed below the tunnel contains the original turbines used to generate electricity.

The original north leg of the rock conveyor system (approximately 4,500 feet) and the lower leg of the rock conveyor system near the creek and related feeding conveyors, are no longer extant. The current lower (east) terminus is housed in an open shed. Rock diverted southward from the terminus is dropped to a stockpile and then loaded to another conveyor that delivers the rock to the aggregate facility located at the south end of the site.

The remnant of the crusher near Permanente Creek is located near what was once the Lower Quarry. The crusher was located at the upper terminus of the conveyor belt. It was here that limestone rock was crushed and then traveled on the conveyor belt to the processing plant. The conveyor branched out northward from this location to two other crushers, between the two quarry locations, and ultimately extended for two miles. The upper terminus and crusher located near the Permanente Creek remains today in ruins, with only some structural members remaining. A new larger crusher has been installed to the east of this terminus.

Permanente Quarry Pump House (P-43-001870)

The Permanente Quarry Pump House was recorded in 2007 by Jurich and Grady. The remnants of the pump house are located north of the conveyor system and east of the quarry and were determined to lack integrity and not qualify as a historical resource. Jensen concurred with those findings in 2009, but Jurich and Grady's description of the resource appears to be sufficient. Their finding that the resource lacks integrity is confirmed by Maggi et al. (2011).

Henry J. Kaiser Cabin and Accessory Structure (P-43-001869)

The Henry J. Kaiser Cabin and Accessory Structure are the remains of two buildings recorded in 2007 by Jurich and Grady. The resource is a contributing feature to the Kaiser Permanente Quarry Mining District. This resource is in the PCRA Subarea 2; however no planned treatment will occur at the specific location of the resource. The Henry J. Kaiser Cabin was resurveyed in September, 2011 by Maggi et al. The field investigation confirmed the findings recorded by Grady in 2007. The Henry J. Kaiser Cabin remains in a deteriorated state and is presently overgrown and difficult to access. The Accessory Structure to the south across Permanente Creek was not accessed and thus is not evaluated as a part of this report. There is little evidence of the larger wood building that once

rose about the stone base, aside from the extant chimney. It appears that the building may have been partially deconstructed prior to reaching its advanced state of decline.

In 2007, Grady suggested the Henry J. Kaiser Cabin could have been built as early as 1815, based on nails found at the site. No reference has been found to connect Mission Santa Clara to this site, which was under the jurisdiction of the Mission during both the Spanish and Mexican Periods. Additional archival research was conducted to investigate the origins of the structure. The 1883 GLO map does not show any extant structures on this site, although an "old road" is shown that enters into Permanente Canyon and ends to the east of the cabin site. Early ownership surveyor maps of Theodore F. Grant, George H. Grant, CPRR Company, and Revillo A. and Alice H. Swain do not clarify buildings at the site; however, when the USGS first surveyed the area in 1895 (published in 1899), it recorded four structures in the vicinity of the Henry J. Kaiser Cabin. It is likely that the Henry J. Kaiser Cabin is one of the four buildings surveyed in 1895, and may have been built as early as the early-1860s as a hunting lodge.

When Kaiser commenced operations of the Permanente Cement Plant in 1939, he rebuilt/ expanded the Henry J. Kaiser Cabin that exists today on the north side of Permanente Creek. As noted above, an article written by a historian specializing in the history of Kaiser Permanente states that when Kaiser purchased the property in 1939, a building made of stone and redwood was already extant; this large building served as a speakeasy during the Prohibition Era. The article claimed that upon an initial visit to the property, Mr. Kaiser was so taken with the beauty of the cabin's location that he had it renovated, and it became a getaway lodge, complete with a patio, for himself and his wife.

Permanente Creek Wagon Road (P-43-001868)

The Permanente Creek Wagon Road begins within the site boundary, down to and across Permanente Creek to the south, and continues along the creek. The resource is a contributing feature to the Kaiser Permanente Quarry Mining District. This resource is in the PCRA Subarea 2; however no planned treatment will occur at the specific location of the resource. Most of the road has been re-graded and widened. The earliest known map showing the road is the 1883 GLO Map, which identifies an "old road" following the alignment of Permanente Road and terminating at the dividing line between Sections 18 and 19. A 1906 California Mining Report discusses the El Dorado Sugar Company's Quarry (the owner is incorrect, as the quarry was both owned and operated by the Alameda Sugar Company during the first part of the twentieth century) and the fact that mined limestone was hauled out via a 9-mile wagon road (Permanente Road), and then shipped by rail from Mountain View to the company's factory near Alviso. The report also states that the operation had been going on for 3 years. In later maps, the road is shown passing to the south of the Henry J. Kaiser Cabin and then terminating at a point to the west, near the west end of Section 18 where another cabin site was located. Historic accounts of Kaiser's occupation indicated that he built a road up from the cabin to the limestone quarry.

Evaluation of Kaiser Permanente Quarry Mining District

Permanente Quarry is locally and regionally significant under National Register Criteria A and C, and the related California Register Criteria (1) and (3) in the areas of engineering and industry and for its direct association with military efforts during World War II. It is also nationally significant under National Register Criterion B and California Register Criterion (2), being the most important representative site related to the life of Henry J. Kaiser, a person important to the history of the United States.

Under National Register-A and California Register-1, the site represents an important event and pattern of development that is understood both locally and regionally as a significant aspect of how the contemporary industrial base of both Santa Clara County and California evolved beginning at the end of the Depression, and during World War II and the post-World War II period. The larger setting of the Quarry property remains intact, although the excavation areas have expanded greatly over the last 72 years from the early Lower Quarry near Permanente Creek.

The direct association of Permanente Quarry with Henry J. Kaiser, one of America's most prolific and successful industrialists, during a pivotal time in his career, is also important in establishing historical significance. The Permanente Quarry and Cement Plant and its rapid development in the late-1930s and early-1940s catapulted Kaiser to national prominence. Permanente Quarry is nationally significant under National Register-B and California Register-2 based on this association.

The rapid development of the site during 1939 and the early 1940s was an engineering accomplishment that was notable for its time, and within the site was perfected a unique quarry transport system that continues to operate today, although at a reduced scale than that at mid-century. The development of the facility represents a distinctive creative act within the field of engineering, and is both locally and regionally significant under National Register-C and California Register-3.

The criteria of the County of Santa Clara implemented under Ordinance No. NS-1100.96 is similar by definition to the criteria for nomination to the California Register. When evaluated under these criteria, Permanente Quarry meets the requirement for designation as a local landmark site or district.

In determining integrity, the National Park Service recommends use of seven aspects (or qualities) of integrity for consideration in determining significance. These seven aspects are codified in California under the Code of Regulations, Section 4852(c). They are location, design, setting, materials, workmanship, feeling, and association. Permanente Quarry, although now greatly expanded since its operation under Henry J. Kaiser, is largely understandable within its historic context. Historic physical aspects of the quarry remain. The location, design characteristics, setting, materials in terms of its original use, evidence of industrial workmanship, feeling, and association can all be found within the boundaries of the site, which has continued to be operated as a quarry and cement plant since the time of Kaiser's involvement. Historic components continue to have a sense of acuity within the larger contemporary setting that helps to visually understand how this site has developed over time.

In reviewing the boundaries of the potential historic district defined by Jurich and Grady, three areas warrant expansion to include: 1) the railroad line extension and engine barn on the site southeast of the cement plant; 2) the hillside above the easterly terminus of the conveyor system and powerhouse, which was the location of the original conveyor system; and 3) the greater area of the Henry J. Kaiser Cabin and Accessory Structure, which includes the road, area of the early Lower Quarry and crusher, and other yet-unidentified ancillary buildings and structures related to the Cabin area on both sides of the creek. Although some of these features pre-date the Kaiser era, they are part of the historic landscape that is discussed in biographies of the early years of the quarry development associated with Henry J. and Bess Kaiser.

4.5.1.6 Regulatory Setting

Numerous laws and regulations require federal, state, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., Office of Historic Preservation (OHP) and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Register of Historical Resources, Public Resources Code §5024, and CEQA, are the primary federal and state laws governing and affecting preservation of cultural resources of national, state, regional, and local significance. The applicable regulations for the proposed Project are discussed below.

Federal Regulations

National Register of Historic Places

The National Register was established by the NHPA, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR §60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1990):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. 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. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing (U.S. Department of the Interior, 1990).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 1990). The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

State of California

Office of Historic Preservation

The State of California implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The OHP, as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historical Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Pub. Res. Code §5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (Pub. Res. Code §5024.1[b]; 14 Cal. Code Regs. §4850 et seq.). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria. The resource:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

An eligible resource for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

Historical Resources

CEQA (Pub. Res. Code §21000 et seq.; 14 Cal. Code Regs. §15000 et seq.) is the principal state law governing environmental review and approval of discretionary projects proposed in the state. CEQA requires lead agencies to determine, prior to approval, if a project would have a significant adverse effect on historical or unique archaeological resources.

The CEQA Guidelines generally recognize that a historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1); (2) a resource included in a local register of historical resources, as defined in Public Resources Code §5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code §5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record (14 Cal. Code Regs. §15064.5[a]).

If a lead agency determines that an archaeological site is a historical resource, the provisions of CEQA §21084.1 of CEQA and CEQA Guidelines §15064.5 apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of CEQA §21083, which is a unique archaeological resource. As defined in CEQA §21083.2 of CEQA, a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource means an archaeological artifact, object or site which does not meet the criteria in Public Resources Code §21083.2(g), and need not be given further consideration other than the simple recording of its existence by the lead agency if it so elects (Pub. Res. Code §21083.2[h]). The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment (14 Cal. Code Regs. §15064.5[c][4]).

Public Resources Code §5024.1(f) requires a lead agency to make provisions for historical or unique archaeological resources accidentally discovered during construction. Provisions include an immediate evaluation of the find by a qualified archaeologist. Work can continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, Public Resources Code §5024.1(e) requires that there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the county coroner in which the remains are discovered is contacted. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

Paleontological Resources

Paleontological resources also are afforded protection by environmental legislation set forth under CEQA. Appendix G (Part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, stating that a project will normally result in a significant impact on the environment if it will "…disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a

misdemeanor. Further, the California Penal Code §622.5 sets the penalties for the damage or removal of paleontological resources.

The SVP 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, and specimen preparation, identification, analysis, and curation. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

County of Santa Clara

Historic Preservation Ordinance

The County's Historic Preservation Ordinance is set forth in Division C17 of the Municipal Code. Its provisions are intended to preserve, protect, enhance, and perpetuate resources of architectural, historical, and cultural merit within the County and to benefit the social and cultural enrichment, and general welfare of the people (County Code §C17-2). The Ordinance regulates landmark designation, alteration, and demolition; and provides preservation incentives. To further historic preservation efforts, the County maintains an inventory of historic resources and designated Landmarks known as the "heritage resource inventory" (County Code §C17-4). The Permanente Quarry (located at 24001 Stevens Creek Boulevard) is not identified on the heritage resource inventory.

4.5.2 Baseline

The environmental setting described above is consistent with paleontological, prehistoric, ethnographic, and historical conditions in the Project Area as they existed in June 2007, which constitutes the baseline for determining the significance of potential impacts of the Project on cultural resources. Although subsequent surveys and reports have supplemented what is known about these conditions and resources (including by Maggi et al. in 2011), the conditions and resources were extant in 2007. In summary, the Kaiser Permanente Historic Mining District and three contributing features (Permanente Quarry Conveyor System and Crusher, Henry J. Kaiser Cabin, Permanente Quarry Wagon Road) are located in the Project Area. No prehistoric archaeological resources, paleontological resources, or human remains have been identified in the Project Area.

4.5.3 Significance Criteria

Based on CEQA Guidelines §15064.5, CEQA Guidelines Appendix G, and the County's CEQA Guidelines (Initial Study Checklist), a project would cause adverse impacts to cultural resources if it would:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines, or the County's Historic Preservation Ordinance (§17 of County Ordinance Code) – i.e. relocation, alterations or demolition of historical resources;

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines;

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

d) Disturb any human remains, including those interred outside of formal cemeteries; or

e) If within New Almaden Historic area, conflict with General Plan policies of this designated special policy area.

4.5.4 Discussion of Criteria with No Cultural and Paleontological Resources Impacts

As analyzed in this Section, the Project does not have the potential to cause a significant impact related to criterion e). By contrast, the Project could cause a significant impact related the remaining criteria; the potential to cause such impacts is evaluated in Section 4.5.5.

e) The Project is not within the New Almaden Historic area, and so would not conflict with General Plan policies of this designated special policy area.

The New Almaden Historic area, including the village of New Almaden, is located approximately 11 miles south of San Jose to the east of the Project site (National Park Service, 2011). Because the Project Area is not within the New Almaden Historic area, the Project would not conflict with General Plan policies relating to it. The Project would cause no impact related to criterion e).

4.5.5 Discussion of Criteria with Cultural and Paleontological Resources Impacts

The Project has the potential to cause a significant impact related to criteria a), b), c), and d).

a) Would the Project cause substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines, or the County's Historic Preservation Ordinance.

Impact 4.5-1: Project activities could cause an adverse change in the significance of an historical resource pursuant to §15064.5 of the CEQA Guidelines and the County's Historic Preservation Ordinance. ***(Significant and Unavoidable Impact)***

The Project Area is located within the boundaries of a potential Kaiser Permanente Quarry Mining District. Because the potential District is eligible for listing in the California Register, it is considered an historical resource pursuant to CEQA §15064.5. The Project proposes to demolish the following contributing features of the potential District: the existing Permanente Quarry Conveyor System and related tunnel and the remains of the early 1940s crusher. The conveyor would be removed when the crusher is re-located, and the eastern portion close to the tunnel would be removed to accommodate the re-contouring that would occur in this area.

Other contributing features to the Kaiser Permanente Quarry Historic District that exist within the Project Area (including the Henry J. Kaiser Cabin and Accessory Structure and the Permanente Quarry Wagon Road and related wall) would not be affected by the Project. The Henry J. Kaiser Cabin and Wagon Road are within the PCRA Subarea 2, however no proposed treatment is planned at those specific locations and the resources will be avoided.

Potential contributing features to the Historic District within the Cement Plant but outside of the Project Area, including the Railroad Segment and "dinky train," would not be directly or indirectly affected by the Project.

Resources in the Exploration Area (including the McCarthy Homestead and the Kenna/Orchard Ranch) have been recommended not eligible for listing in the California Register and do not appear to qualify as historical resources. No additional consideration is necessary for these resources.

Because the Project would demolish contributing features of the District, the Project would cause an adverse change in the significance of these historical resources, and therefore, a significant impact on the environment under CEQA §15064.5. The overall setting within the District also would be affected by the proposed reclamation activities. While historic settings within mining districts that are currently active are dynamic by nature, reclamation would nonetheless cause an adverse change in the significance of the District relative to baseline conditions and the existing setting.

The loss of the Permanente Quarry Conveyor System and related tunnel and the remains of the early 1940s crusher would cause a substantial adverse change to a historical resource because it would demolish in an adverse manner those physical characteristics that convey the District's historical significance and that justify its eligibility for inclusion in the California Register.

Mitigation measures to reduce the significant impacts to the District are described below. These measures, however, would not mitigate the impact of demolition to a less-than-significant level; consequently, the impact would remain significant and unavoidable.

Typical measures to mitigate adverse impacts to historical resources include application of the *Secretary of the Interior's Standards for the Treatment of Historic Properties Including Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (USDI, 1995). The intent of the *Standards* and the related *Guidelines* is to assist the long-term preservation of a property's significance through the preservation, rehabilitation, restoration, and/or reconstruction of historic properties and their features. CEQA §15064.5(b)(3) states that a project that follows the *Standards* is considered mitigated to a less-than-significant level.

The conveyor would need to be largely removed when the crusher is re-located. The eastern portion of the conveyor close to the tunnel also would have to be removed to accommodate the proposed re-contouring in this area. As the Project intends to demolish historic features which contribute to a California Register-eligible historic district, such actions would run directly counter to the guidance provided in the *Standards*, and therefore, the *Standards* cannot be applied to mitigate the impacts of the Project to a less-than-significant level.

Mitigation Measure 4.5-1a: The Applicant shall document the physical characteristics and their historic context of the contributing features of the Kaiser Permanente Quarry Mining District, including archival photo-documentation, mapping, and recording of historical and engineering information including measured drawings about the property according to the standards of the Historic American Building Survey/Historic American Engineer Record/Historic American Landscapes Survey (HABS/HAER/HALS), to be placed in a local public archive such as the Archives of the County of Santa Clara;

Mitigation Measure 4.5-1b: The Applicant shall salvage and/or relocate a representative portion of the Permanente Quarry Conveyor System and the remains of the early 1940s crusher, which constitute character-defining features that otherwise would be lost as a part of implementation of the Project; and

Mitigation Measure 4.5-1c: The Applicant shall prepare public information programs to educate the general public on the historic nature of the potential Kaiser Permanente Quarry Mining District, including but not limited to exhibits at the Quarry office, publications available at the Quarry office, and an online presentation available on the Applicant's website (www.lehighpermanente.com).

Significance after Mitigation: Implementation of Mitigation Measures 4.5-1a through 4.5-1c would lessen, but not fully offset, the Project-specific impacts of demolition to a less-than-significant level. Therefore, the impacts would remain significant and unavoidable.

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b) Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines?

Impact 4.5-2: Project activities could cause an adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines. ***(Less than Significant with Mitigation Incorporated)***

The Project involves reclamation and restoration and does not establish new mining areas; very little ground-disturbing activity would occur in areas that have not already been substantially disturbed by mining. Nonetheless, while there is no indication the Project Area contains unrecorded archaeological resources, the possibility of accidentally uncovering undocumented archaeological resources cannot be entirely discounted. Accidental damage to, or destruction of, a previously unrecorded and unique archaeological resource would be a potentially significant impact. In the unlikely event that archaeological materials are discovered during Project activities, implementation of **Mitigation Measure 4.5-2** would ensure that work would cease in the immediate area and a qualified archaeologist would be hired to document the find, assess its significance, and recommend further treatment.

Mitigation Measure 4.5-2: If cultural resources are encountered during Project implementation, the Applicant shall notify the County and all activity within 100 feet of the find shall halt until it can be evaluated by a qualified archaeologist and a Native American representative. Prehistoric archaeological materials might include obsidian and chert

flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist and Native American representative determine that the resources may be significant and cannot be avoided, they shall notify the County and an appropriate treatment plan for the resources shall be developed by the Applicant in consultation with the County and the archaeologist. Measures in the treatment plan could include preservation in place (capping) and/or data recovery. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources. Ground disturbance shall not resume within 100 feet of the find until an agreement has been reached as to the appropriate treatment of the find.

Significance after Mitigation: Less than Significant.

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c) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As explained below in the context of Impact 4.5-3, the Project could directly or indirectly destroy a unique paleontological resource or site. However, it would cause no adverse effect on a unique geological feature.

Unique geological features include attractive or interesting rock formations, erosional features, and/or landforms that represent a public attraction due to their unusual appearance, exemplary characteristics, and/or educational value. Examples of unique geological features in the greater San Francisco Bay Area include sag ponds, offset creek channels, and unusual scarps created along the San Andreas Fault within the Midpeninsula Regional Open Space District; the coastal rock forms within Natural Bridges State Park along the Pacific Coastline; or the prominent and unusual volcanic features atop Round Top Mountain in the East Bay Regional Park District. The ridgeline and landform that make up the EMSA and other ridgelines that would be affected by the Project do not have geological characteristics that differ from most of the hills along the San Francisco Peninsula and within the greater Bay Area, and therefore do not represent a unique geological feature. Thus, the Project would have no impact on unique geological features. Note that the contribution of ridgelines and landforms with respect to the visual character and quality within and surrounding the project area is discussed in section 4.1, *Aesthetics, Visual Quality, and Light and Glare*.

Impact 4.5-3: Project activities could directly or indirectly destroy a unique paleontological resource or site. ***(Less than Significant with Mitigation Incorporated)***

Impacts on paleontological resources are triggered by excavation into paleontologically sensitive rock units that have not been previously disturbed. Because the Project involves the reclamation

and restoration of the property, and does not establish new mining areas, it is unlikely that previously undisturbed bedrock units would be excavated. Under the Project, the Quarry pit would be backfilled, the EMSA would undergo active restoration in its current topography, and previously mined overburden stored in the WMSA would be excavated for use as backfill material in the Quarry pit. Reclamation of the crusher/Quarry office area, surge pile, and rock crusher would involve only minor finish grading in previously disturbed areas. Reclamation of the area south of Permanente Creek that has been subject to exploratory activities would involve monitoring of revegetation efforts in progress. Establishment of additional set-asides or buffer areas would be predominantly a mapping exercise and would not involve ground disturbance. While the Project activities in the WMSA call for the removal of previously mined overburden rock and the restoration of pre-mining contours; due to the large excavation volume (48 million tons) and uncertainties regarding the exact timing and configuration of the finished topography, it is conservatively assumed that some undisturbed rock material might be excavated. Nonetheless, the rock formation underlying the WMSA is the Franciscan Complex which is considered to have a low paleontological potential.

While there is no indication that the Project contains unique or significant fossils, or that paleontologically sensitive rock formations would be disturbed, the possibility of encountering fossils in the course of earth-moving operations cannot be discounted entirely, particularly in light of the scale of earth moving operations that are proposed. The presence and significance of a fossil resource is unknown until it is uncovered and examined by a qualified paleontologist. However unlikely, if a fossil is uncovered during earth moving operations, it would represent a potentially significant impact under CEQA. In order to avoid potential damage or destruction of a paleontological resource, the Applicant shall implement **Mitigation Measure 4.5-3**, which requires any potential discovery of a fossil to be examined by a paleontologist, and recovered, if appropriate.

> **Mitigation Measure 4.5-3:** If a paleontological resource is encountered during implementation of the RPA, the Applicant shall notify the County and all activity within 100 feet of the find shall halt until it can be evaluated by a qualified paleontologist as defined by the Society of Vertebrate Paleontology Guidelines (SVP, 1995). The paleontologist shall evaluate the resource and determine its significance. If significant, the paleontologist shall notify the County and the Applicant, in consultation with the County and the paleontologist, shall prepare a treatment plan such that the fossil would be recovered and scientific information preserved. The paleontologist shall implement the treatment plan in consultation with the County and Applicant prior to allowing work in the 100-foot radius to resume.

Significance after Mitigation: Less than Significant.

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d) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Impact 4.5-4: Project activities could disturb human remains, including those interred outside of formal cemeteries. ***(Less than Significant with Mitigation Incorporated)***

While there is no indication that the Project Area has been used for human burials, the possibility cannot be discounted entirely. In the unlikely event that human remains are discovered during Project activities, implementation of **Mitigation Measure 4.5-4** would ensure that work would cease in the immediate area and the County Coroner is contacted to assess the find. The measure would ensure that any discoveries would be handled in accordance with state law and would reduce the significance of this impact.

> **Mitigation Measure 4.5-4:** In the event that human skeletal remains are encountered, the Applicant is required by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, Title 14 California Code of Regulations Section 15064.5(e), and County Ordinance No. B6-18 to immediately notify the County Coroner. Upon determination by the County Coroner that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of §7050.5 of the Health and Safety Code and the County Coordinator of Indian affairs. No further disturbance of the site shall be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of state law and the County Ordinance. If artifacts are found on the site, a qualified archaeologist shall be contacted along with the County Planning Office. No further disturbance of the artifacts shall be made except as authorized by the County Planning Office.

Significance after Mitigation: Less than Significant.

4.5.6 Alternatives

4.5.6.1 Alternative 1: Complete Backfill Alternative

Similar to the Project, selection of Alternative 1 would cause the demolition of contributing features of the Kaiser Permanente Quarry Mining District. Alternative 1 would cause an adverse change in the significance of these historical resources; therefore, it would cause a significant impact on the environment under CEQA Guidelines §15064.5. The overall setting within the District also would be affected by Alternative 1. As explained in the context of the Project, while historic settings within mining districts that are currently active are dynamic by nature, reclamation nonetheless would cause an adverse change in the significance of the District.

If Alternative 1 were adopted, the same mitigation measures that have been identified for the Project would be required to reduce the significant impacts to the District. These measures, however, would not mitigate the impact of demolition to a less-than-significant level; consequently, the impact of Alternative 1 also would be significant and unavoidable.

4.5.6.2 Alternative 2: Central Materials Storage Area Alternative

Similar to the Project, selection of Alternative 2 would cause the demolition of contributing features of the Kaiser Permanente Quarry Mining District. Alternative 2 would cause an adverse change in the significance of these historical resources; therefore, it would cause a significant impact on the environment under CEQA Guidelines §15064.5. The overall setting within the District also would be affected by Alternative 2. As explained in the context of the Project, while historic settings within mining districts that are currently active are dynamic by nature, reclamation nonetheless would cause an adverse change in the significance of the District.

If Alternative 2 were adopted, the same mitigation measures that have been identified for the Project would be required to reduce the significant impacts to the District. These measures, however, would not mitigate the impact of demolition to a less-than-significant level; consequently, the impact of Alternative 2 also would be significant and unavoidable.

4.5.6.3 No Project Alternative

Similar to the Project, selection of the No Project Alternative would cause the demolition of contributing features of the Kaiser Permanente Quarry Mining District, albeit 7 years later than is proposed for the Project. Because the No Project Alternative would cause an adverse change in the significance of these historical resources, it would cause a significant impact on the environment under CEQA Guidelines §15064.5. The overall setting within the District also would be affected by the No Project Alternative. As explained in the context of the Project, while historic settings within mining districts that are currently active are dynamic by nature, reclamation nonetheless would cause an adverse change in the significance of the District.

If the No Project Alternative were approved, the same mitigation measures that have been identified for the Project would be required to reduce the significant impacts to the District. These measures, however, would not mitigate the impact of demolition to a less-than-significant level; consequently, the impact of the No Project Alternative also would be significant and unavoidable.

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