4.4 Cultural Resources and Tribal Cultural Resources

This section describes the existing conditions related to cultural and tribal cultural resources conditions of the Proposed Project site and vicinity, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Newell Creek Pipeline (NCP) Improvement Project (Proposed Project). The analysis is based on an Archaeological Resources Inventory and Evaluation Report (Dudek 2021a) and Historical Resources Inventory, Evaluation and Finding of Effect Report (Dudek 2021b) prepared for the Proposed Project; both reports are included in Appendix C.

A summary of the comments received during the scoping period for this environmental impact report (EIR) is provided in Table 2-1 in Chapter 2, Introduction, and a complete list of comments is provided in Appendix A. One comment letter related to cultural resources and tribal cultural resources was received from the Native American Heritage Commission (NAHC). The letter described the lead agency's responsibilities to evaluate tribal cultural resources under Assembly Bill (AB) 52 and Senate Bill (SB) 18 and provided recommendations for cultural resource assessment for the Proposed Project.

4.4.1 Definitions

Under the sample Initial Study Checklist found in Appendix G of the CEQA Guidelines, the term "cultural resources" encompasses both unique archaeological resources and historical architectural resources. More particularly, the category "cultural resources" focuses on two statutorily defined categories of resources: unique archaeological resources (see Public Resources Code Section 21083.2 and CEQA Guidelines Section 15064.5[c][3]) and "historical resources," which includes both structures and subsurface resources (see Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5[a], [c][1]). Pursuant to AB 52, enacted in 2014, CEQA also considers a project's potential impacts on tribal cultural resources. Cultural and tribal cultural resources are further defined as follows:

- Archaeological resources are objects or structures, often below ground, that relate to previous human use of an area. Archaeological resources are often distinguished by whether they are "prehistoric" or "historic." Prehistoric archaeological resources are connected to people who occupied the land prior to European settlement; historic archaeological resources are connected to the period of continuous European settlement forward. In much of California, this generally starts from the date of the Portolá expedition in the year 1769.
- Historic architectural resources are structures and buildings that may have historical associations with
 people or events of regional significance. Sometimes, historic architecture is also referred to as the
 "historic built environment." In Santa Cruz County, historic architectural resources are typically
 associated with the Spanish, Mexican, and American periods in California's history.
- Tribal cultural resources, defined in Section 21074(a) of the Public Resources Code, are sites, features, places, cultural landscapes, sacred places, or objects which are of cultural value to a California Native American tribe. Tribal cultural resources can sometimes also qualify as "unique archaeological resources" or "historical resources" (Public Resources Code Section 21074[c]).

These cultural resource definitions are further described in Section 4.4.3, Regulatory Framework.

4.4.2 Existing Conditions

Information in this section was obtained through cultural resource records searches, archival research, pedestrian surveys of the Proposed Project sites, historical significance evaluations, and correspondence with Native American tribes and other interested parties. The information is summarized below and described in detail in Appendix C.

4.4.2.1 Cultural Context

The following overview is summarized from the Archaeological Resources Inventory and Evaluation Report (Dudek 2021a) and Historical Resources Inventory, Evaluation and Finding of Effect Report (Dudek 2021b) prepared for the Proposed Project (see Appendix C) unless otherwise cited.

Prehistoric Context

Prior to European contact, the Project site was within the territory that was occupied by the Costanoan or Ohlone people. The term Costanoan refers to people who spoke eight separate Penutian-stock language groups and lived in autonomous tribelet communities between the vicinities of the City of Richmond in the north to Big Sur in the south. The prehistoric era of the greater Central California coast spans a period of approximately 10,000–12,000 years, and divides into six different periods. Researchers distinguish these periods based on perceived changes in prehistoric settlement patterns, subsistence practices, and technological advances. The Awaswas tribelet occupied the Santa Cruz area at the time of European contact.

Paleo-Indian Period (Pre-8000 BC)

The Paleo-Indian Period represents people's initial occupation of the Monterey Bay region, which was quite sparse across the region. The traditional interpretation of Paleo-Indian lifeways is that people were highly mobile hunters who focused subsistence efforts on large mammals. In contrast, the earliest inhabitants of the region focused their economic pursuits on coastal resources. Archaeological sites that support this hypothesis are mainly from the Santa Barbara Channel Islands. Some scholars hypothesize that Paleo-Indian sites in the Bay Area/northern Central Coast region may exist but have been inundated as a result of rising ocean levels throughout the Holocene.

Millingstone Period (8000 to 3500 BC)

Settlement in the Central Coast appeared with more frequency in the Millingstone Period. Sites are often associated with shellfish remains and small mammal bone, which suggest a collecting-focused economy and a diet composed of 70% to 84% marine resources. Contrary to these findings, deer remains are abundant at some Millingstone sites, which suggests a flexible subsistence focus. Similar to the Paleo-Indian Period, archaeologists generally view people living during the Millingstone Period as highly mobile.

Early Period (3500 to 600 BC)

The Early Period corresponds with the earliest era of the "Hunting Culture." Early Period sites are located in more varied environmental contexts than Millingstone sites, suggesting more intensive use of the landscape than practiced previously. Early Period sites are common and often found in estuary settings along the coast

or along river terraces inland and are present in both Monterey and Santa Cruz counties. Archaeologists have long debated whether the shift in site locations and artifact assemblages during this time represent either population intrusion as a result of mid-Holocene warming trends, or an in-situ adaptive shift. The initial use of mortars and pestles during this time appears to reflect a more labor- intensive economy associated with the adoption of acorn processing.

Middle Period (600 BC to AD 1000)

The trend toward greater labor investment is apparent in the Middle Period. During this time, there is increased use of plant resources, more long-term occupation at habitation sites, and a greater variety of smaller "use-specific" localities. The pattern reflects a greater emphasis on labor-intensive technologies that include projectile and plant processing. Additionally, faunal evidence highlights a shift toward prey species that are more labor intensive to capture, either by search and processing time or technological needs. These labor-intensive species include small schooling fishes, sea otters, rabbits, and plants such as acorn.

Middle-Late Transition (AD 1000 to 1250)

The Middle-Late Transition is a time that appears to correspond with social reorganization across the region. This era is also a period of rapid climatic change known as the Medieval Climatic Anomaly. The Medieval Climatic Anomaly is proposed as an impetus for the cultural change that was a response to fluctuations between cool-wet and warm-dry conditions that characterize the event. Archaeological sites are rarer during this period, which may reflect a decline in regional population.

Late Period (AD 1250-1769)

Late Period sites are found in a variety of environmental conditions and include newly occupied task sites and encampments, as well as previously occupied localities. Coastal sites dating to the Late Period tend to be resource acquisition or processing sites, while evidence for residential occupation is more common inland.

Historic Context

Spanish Period (1542 to 1822)

The first European to explore the Monterey Peninsula was Juan Rodríquez Cabrillo, a Portuguese explorer who was sent by the Viceroy of New Spain in 1542 to explore the Pacific coast north of Mexico. In 1602, Sebastián Vizcaíno was sent by the Spanish government to map the Californian coastline. It was Vizcaíno who named the area "Puerto de Monterey" after the viceroy of New Spain. The Gaspar de Portolá expedition traveled through the region in 1769 and returned again in 1770 to establish the Monterey Presidio, Spain's first military base in Alta California (the Spanish colonial state that included all of the modern U.S. states of California, Nevada and Utah, and parts of Arizona, Wyoming, Colorado and New Mexico. Mission Santa Cruz was established in 1791 as the twelfth mission in California. The Spanish missions drastically altered the lifeways of the Native Americans. Spanish missionaries conscripted members of local Native American communities to move to the Mission, where they were indoctrinated as Catholic neophytes. Villa de Branciforte, one of three Spanish civil settlements in California, was established near the Mission in 1797. The land taken by the Spanish was eventually repatriated to the Native tribes, but the massive decline in the population as a result of disease and

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cultural disintegration meant that by the time the land was repatriated, few eligible recipients remained alive and in the area.

Mexican Period (1822 to 1848)

Mexico gained independence from Spain in 1821 and, in 1834, the Mexican government secularized the mission lands, releasing the Native Americans from control of the mission system. The City of Monterey continued as the capital of Alta California and the Californios, the Mexicans who settled in the region, were given land grants. These land grants covered over 150,000 acres of present-day Santa Cruz County.

American Period (1848 to Present)

The United States of America acquired Alta California in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican-American War. The California Gold Rush of 1849 led to an influx of people seeking gold in the rural counties of California. Entrepreneurs in Santa Cruz also saw the arrival of opportunity-seeking laborers to harvest natural resources found throughout the area. The lumber, fishing, lime, cement, and leisure industries formed the economic foundation of the County of Santa Cruz, while in the fertile acreage of central and south Santa Cruz County, agriculture took hold as the leading economic venture.

As the County moved into the 1900s, agriculture and tourism continued as the region's most prominent economic drivers. By the late 1950s, the population began to expand with aid from the establishment of Cabrillo College in 1959 and the University of California at Santa Cruz in the 1965. These higher education facilities brought both students and jobs as the schools became major sources of community employment throughout the County. During the 1980s, a number of technology companies settled in the area due to its proximity to Silicon Valley. Today, tourism, agriculture, manufacturing, and technology are the key industries that provide the economic base for County's residents

The Role of Water in the Early Development of Santa Cruz County

The Gold Rush accelerated the desirability of land across the state, and before long, access to water in the drought-prone region took on the highest level of importance. Instead of adopting an equal water access structure in the fashion of the eastern United States, the wealth potential of waterways during the Gold Rush shaped California water law into a "first in time, first in right" system known as Prior Appropriation. Under this system, riparian rights were granted to the first person to use a river or tributary for beneficial consumption like mining, farming, milling, or as-needed domestic use. When land in the Santa Cruz Mountains was subdivided and sold, access to the rivers and streams was enormously important. Not only did it mean that the initial use set out for a waterway was the primary use, it also meant that any subsequent uses could not supersede or negatively affect the chief use. The order that claims were recognized during this period established the foundation of the complicated system of water allocation rights still in use today in Santa Cruz County.

Many of these mountain streams and tributaries were utilized by early landowners and tenant entrepreneurs to make a profit from the natural resources that formed the early economic basis of the County. Several of these mountain creeks still bear the names of the first men who established mills or permanently settled beside them. Majors Creek was named for Joseph L. Majors who established a grist mill on the creek prior to serving as the County Treasurer between 1850 and 1853. Liddell Creek was named for George Liddell who

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moved to the Santa Cruz Mountains and established a sawmill on the creek in 1851. Newell Creek was named for Addison Newell who established a farm in the steep, "v"-shaped valley on the banks of the creek in 1867.

For others, the streams presented pure economic opportunity. The first power sawmill in California was built on Rancho Zayante by Isaac Graham in the 1842 and was driven by the waters of Zayante Creek. Isaac E. Davis and Albion P. Jordan of the Davis and Jordan Lime Company purchased a portion of Rancho Cañada del Rincon in 1853 as a promising quarry site. They also utilized the falling water on the property to process local lumber into fuel for their many kilns. The California Powder Works was established in 1865 on the bank of the San Lorenzo River on a portion of Rancho Carbonera. The Powder Works used the river to grind raw materials used in the production of the first smokeless powder manufactured on the west coast of the United States. By 1868, there were a sizable number of business and industries that relied on water from County waterways to operate, including 12 water-powered lumber mills, 10 steam-powered lumber mills, and 9 shingle mills in operation within the County.

4.4.2.2 Development of Water Supply Systems in Santa Cruz County

City of Santa Cruz

As water management techniques were being applied to a variety of industries throughout the County, the successful technologies developed and used in early natural resource harvesting such as flumes and pumps prompted local residents in the City of Santa Cruz to consider why these were not being put to use for the benefit of drinking water. Beginning in the 1860s, acute cyclical water shortages and pollution prompted the development of several for- profit water systems in Santa Cruz. By the end of the 1880s, the two surviving major water companies, F.A. Hihn Water Works and the Santa Cruz Water Company, were joined into a single private business that competed with the new municipal water system that began in 1890 for almost three decades before being purchased by the City and integrated into the municipal system in 1916. The following section provides an outline of specific projects and key milestones related to the development of water management systems in the City of Santa Cruz.

F.A. Hihn Water Works (1864)

In 1864, Elihu Anthony and Fredrick A. Hihn implored the Board of County Supervisors to allow them to dig trenches and lay redwood pipes to transport water throughout Santa Cruz. The "wooden tubes" were chosen as an inexpensive alternative to iron pipes. The source of the water was an 8,000-gallon reservoir on Anthony's property supplied by water from Scott's Creek, and eager recipients of the water could gain access for a fee. The system became known as the F.A. Hihn Water Works, and it was the largest provider of water in the newly chartered city, with Dodero and Carbonero Creeks constituting its primary sources. The company predated the incorporation of Santa Cruz by 2 years.

The Santa Cruz Water Company (1866)

A man named E. Morgan acquired rights to the waters of the San Lorenzo River in 1866, just prior to the town of Santa Cruz being officially incorporated later that year. He used these rights to install a section of pipework conveying water to the area known then as the "The Flats," which comprises the modern area of Pacific Avenue and Front Street.

In 1876, Morgan sold his system to a wealthy man from San Francisco named H.K. Lowe. Under Lowe's guidance, the Santa Cruz Water Company incorporated in July 1876 and began construction on a pumping station on the San Lorenzo River approximately 1 mile upstream from the City, as well as a new reservoir located on High Street. By the end of 1876, the Company had also installed a diversion off Branciforte Creek to deliver water to a new reservoir located at the base of School Street. As the City continued to grow and the steam-powered pumping plant installed on the San Lorenzo River became the source of repeated water-quality concerns, the Santa Cruz Water Company acquired partial water appropriation rights to Majors Creek in 1881. For the next several years, the Santa Cruz Water Company focused its attention on the construction of a pipeline to divert water from the newly acquired Majors Creek appropriations. This effort was very costly and the company slipped into dire financial standing, eventually prompting the sale of the company in 1886.

City of Santa Cruz Water Department Development

During the 1880s, the rising price of these fee-based water systems like the F.A. Hihn Water Works and the Santa Cruz Water Company prompted the City to explore their own, city-owned, public water option. After several attempts to acquire an existing system of water works, the City revised its approach and began planning to build a diversion system and storage reservoir from the ground up, prompting the development of the first municipal water project in Santa Cruz, the Laguna Creek Dam and the Cowell Reservoir. This project led the way for other water system development in the City, including several other north coast stream diversions and the first pumping plant on the San Lorenzo River. In 1916, the City acquired the rights to the Santa Cruz Water Company and began to tie in the systems as one, forming the basis of the modern City system used today. Other components of the City's water system came soon after the 1890 completion of the Laguna Creek Dam, including the Reggiardo Creek Diversion and Dam (1891 and 1912), the High Street Distribution Reservoir (1904), Liddell Spring Diversion (1913), and the Crossing Street Pump Station (1913).

After the purchase of the Santa Cruz Water Company the City developed and improved many of the elements of its modern day system, including the Bay Street Reservoir (1924), Crossing Street Pumping Plant (now known as the Coast Pump Station) (1929), Tait Diversion (1961, reconfigured in 1983), Newell Creek Dam (1960, modified in 1985), Graham Hill Water Treatment Plant (1960, upgraded in 1987), Felton Diversion (1976), as well as other components of the system.

In 1936, the County granted lowa native, Charles Lemar Beltz, the rights to begin operating a private water system in the area of the County roughly bounded by Capitola Road to the north, Rodeo Gulch and Corcoran's Lagoon to the west, the bay to the south, and 41st Avenue to the east. The service area of the Beltz system covered approximately 25% of the Live Oaks district with water sourced from ground wells located throughout the district and conveyed through pipelines situated beside Live Oak roads. By 1955, the Beltz Water Company system included six source wells that allowed the system to accommodate incremental growth from 900 customers in 1955 to approximately 1,500 customers by 1967. The City purchased the Beltz Water Company System in 1967 and also purchased the Pestana Water Company in 1961 that served the Santa Cruz Gardens subdivision and the Rolling Woods subdivision.

Newell Creek Dam Construction

On November 5, 1958, the voters of the City of Santa Cruz approved \$5.5 million in water revenue bonds necessary for the City to purchase 2,162 acres of land in the Newell Creek watershed from the San Lorenzo Valley Water District and build a dam on the site. The construction of the Newell Creek Dam and preparation

for the creation of Loch Lomond Reservoir began in 1960. The Newell Creek Dam was completed in 1961 and provides raw water storage for the City. With the help of a \$149,000 state grant, the Loch Lomond Recreation Area was completed by the spring of 1965. It included picnic areas, a concessions building, parking areas, two docks, and a boat launch. An all-weather road leading from Lompico to the Recreation Area was a crucial improvement constructed during this phase of the project. It allowed visitors to experience the new recreation activities available at Loch Lomond, while simultaneously comprehending the realities of water storage and use in the county.

Development of the Newell Creek Pipeline

Planning for the NCP began in conjunction with the development of the Newell Creek Dam and the Graham Hill Water Treatment Plant (GHWTP) following the approval of \$5.5 million in water revenue bonds by Santa Cruz voters in November 1958. In October 1959, the City received a ROW agreement from the State of California for approximately 15,000 feet of the NCP to pass through the newly formed Henry Cowell Redwoods State Park south of Felton. Construction began in June 1960 and was completed later in 1960.

San Lorenzo Valley

By the late 1800s and early 1900s several small communities were scattered throughout the San Lorenzo Valley. These areas developed as a result of mining and lumber operations, the arrival of multiple railroads into the remote areas of the valley, and the increased popularity as a tourist destination for development of vacation homes. The remote nature of these small subdivisions caused them to rely on small, self-contained water systems. The communities of Ben Lomond, Brookdale, and Boulder Creek for example, formed their own, distinct water systems designed to serve the needs of residents who occupied their vacation homes only a few weeks a year which were supplied by nearby springs and creeks by way of flumes or pipelines. When the County population doubled between 1900 to 1940 from 21,512 to 45,057 persons and more people moved permanently into the valley, the existing water systems became inadequate.

Frequent droughts between 1912 and 1939 convinced San Lorenzo Valley leaders to form a water district to better control water, to serve the needs of the valley. After one failed attempt to form a county water district by election in 1939, the San Lorenzo Valley Water Department (SLVWD) was formed by the voters on April 3, 1941. In 1959, the SLVWD signed an agreement with the City of Santa Cruz, in which the district sold the City its timber and mineral rights to the Newell Creek watershed, in exchange for one-eighth of the water rights from the water stored by Newell Creek Dam.

4.4.2.3 Archaeological Conditions of Proposed Project Sites

The following section summarizes archaeological resources and conditions in the Proposed Project's "area of potential effect" (APE) as contained in the Project archaeological report (see Appendix C). The results and findings are summarized below.

The APE includes those areas where project ground-disturbing activities would occur, including construction staging areas, along the entire NCP alignment. The width of the ground disturbance along the pipeline alignment varies between 10 to 120 feet (see Tables 3-2 and 3-3 in Section 3, Project Description). The vertical APE for the Proposed Project is generally between 5 and 15 feet below ground surface and is variable based on the diameter of the pipe

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installed, ground conditions and presence of other utilities. However, the Brackney North section may be deeper at up to 50-100 feet below ground surface.

CHRIS Records Search

A cultural records search for the Proposed Project's APE and 0.25-mile buffer was conducted through the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC). The records search covered previously recorded resources and technical reports and reviewed the following:

- Archaeological and non-archaeological resource records and reports on file at NWIC
- Built Environment Resources Directory (BERD)
- OHP Archaeological Determinations of Eligibility
- California Inventory of Historical Resources (1976)
- Historical Maps

Previously Recorded Archaeological Resources

There have been 168 previous archaeological studies conducted within in the greater study area. Of those 168 reports, 22 have project areas that intersect the APE. The CHRIS records search revealed no previously recorded archaeological resources within the APE and 36 recorded resources within the study area buffer. Of the 36 known resources three are outside the APE, but within the buffer area (CA-SCR-78, CA-SCR-112/H, and CA-SCR-162), and are further reviewed below.

CA-SCR-78 (P-44-000083)

This resource is a bedrock mortar (BRM) milling station recorded by Lönnberg in 1972. The location is estimated to be approximately 250 feet east of the APE.

CA-SCR-112/H (P-27-000116)

This resource first recorded by Jean and Don Stafford in 1975 as a light scatter of chert lithic debris. Given the site location on a gentle slope above a small unnamed stream the recorders speculated that the location may have been an indigenous hunting station. Constituents noted from the site include a medial fragment of a Monterey chert biface tool, a few lithic debitage fragments and sparse marine shell. Historical debris including ceramic was also noted. A site record update (Cabrillo College ATP 2002) noted only two Monterey chert flakes and sparse historical debris including ceramic and window glass. The is estimated to be approximately 100 feet west of the APE.

CA-SCR-162 (P-27-000165)

Morris (1977a) recorded this site as a midden deposit with flake stone tools, cores, debitage and fire affected rock. Morris interpreted the materials as a temporary indigenous campsite for short-term or seasonal use. The location is estimated to be approximately 300 feet west of Graham Hill.

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4.4.2.4 Historic Conditions of Proposed Project Sites

The following section summarizes historic resources and conditions in the Proposed Project's APE as contained in the Project historical resources report (see Appendix C). The results and findings are summarized below.

CHRIS Records Search

As indicated previously, a CHRIS cultural records search for the study area was conducted that includes the APE and a 0.25-mile buffer radius. The results of the survey were used to evaluate the site features for potential historical significance, based on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and the Santa Cruz County Historic Resources Inventory (SCCHRI) or City of Santa Cruz Historic Building Survey criteria, as relevant. See Section 4.4.3, Regulatory Framework, for information about these historic registers.

Recorded and Known Historical Resources in Vicinity of Proposed Project sites

The records search results included 168 previously conducted studies within the study area. Of those 168 reports, 22 have project areas that intersect the Proposed Project APE. The records search revealed 34 previously recorded cultural resources within the record search study area. Five previously recorded cultural resources (all built environment resources) intersect the APE, and 29 recorded resources are located within the study area buffer outside the APE. The five resources located within the APE have been previously found ineligible, so there is no potential for adverse effect.

Recorded historical resources within the 0.25-mile APE buffer area are summarized in Table 4.4-1. Three previously recorded cultural resources (all built environment resources) have been identified as being eligible or potentially eligible for listing on the NRHP and/or CRHR.

Table 4.4-1. Previously Recorded Cultural Resources Within the Records Search Area

Primary Number	Trinomial	Resource Name/ Description	Age	Year (Recorded By)	NRHP/CRHR Eligibility Status	Proximity to APE
Resources within the 0.25-mile Record Search Buffer						
P-44- 000209	CA-SCR- 000207H	Felton Covered Bridge/ Structure	Historic	1975 (Jean & Don Stafford); 1984 (Basin Research); 2002 (Foley, Connolly, Gorham, Bowen, Peebles, Edwards, Cabrillo College Archaeological Technology Program)	18	Outside
P-44- 000210	CA-SCR- 000208H	Felton Presbyterian Church/Building	Historic	1977 (Mrs. Edith E. Fikes, Faye G. Belardi Board of Trustees);	1S	Outside
P-44- 000971	_	Southern Pacific Depot/Building	Historic	1988 (Edna F. Kimbro, Historical Architectural Research); 2001 (Brett Rushing, ENTRIX Inc.)	5S2	Outside

Status Codes: (1S) Individual Property listed in the NRHP by the Keeper; (5S2) Individual property that is eligible for local listing or designation; (6) Not eligible for listing; (6Y) Determined ineligible for NRHP by consensus through Section 106 process – Not evaluated for CRHR or Local Listing; (6Z) Found ineligible for NRHP, CRHR, or Local designation through survey evaluation; and (7N) Needs to be reevaluated.

The San Lorenzo River Bridge (36C0085) is located east of the intersection of Highway 9 and Clearview Place, and it briefly transects the APE north of Felton. This local agency bridge was completed in 1920 and is included in the Caltrans Historic Bridge Survey with a NRHP historical significance status designation of 2, Eligible for National Register listing. The bridge on Graham Hill Road over Zayante Creek (referenced as Bean Creek Bridge [36C0141]) is located on Graham Hill Road just south of the intersection with East Zayante Road within the Project APE. This local bridge was completed in 1936 and is included in the Caltrans Historic Bridge Survey with a NRHP historical significance status designation of 5, Ineligible for National Register listing.

Other resources over the age of 45 years of age are located in the APE but would not be affected by Project construction or implementation. A section of the Santa Cruz and Felton Railroad is present within the APE where it briefly transects the planned path of the pipeline. Several roads also run parallel with or briefly transect the Project APE, including Graham Hill Road, Mt. Hermon Road, Glen Arbor Road, numerous small county roads, as well as several private and local agency bridges. These structures are not associated with the NCP as they maintain distinct development histories, and the Proposed Project does not include any actions related to the realignment or replacement of these structures.

Proposed Project Sites

The existing NCP is 9.25 miles long and located in the unincorporated areas of Santa Cruz County. As previously described, construction was completed in 1960 as part of the construction of the Newell Creek Dam. The segments of the NCP directly north of Felton were planned along a section of the former Felton and Pescadero Railroad bed that was decommissioned in 1934. This section of the former railroad path heads northwest from Henry Cowell Redwoods State Park where the tracks met the former Santa Cruz and Felton Railroad tracks, beneath Zayante Creek, and diagonally across Graham Hill Road and Mt. Hermon Road to the beginning of San Lorenzo Way from whence the NCP traveled northwest. This section of road includes multiple culverts which dated to the construction of the railroad in 1885.

The exiting NCP was evaluated for listing in the NRHP, the CRHR, or the SCCHRI and was found ineligible under all criteria. As such, the NCP does not appear to be a historic property under Section 106 of the NHPA or a historical resource under CEQA.

The Newell Creek Access Road Bridge is a concrete access bridge dating from 1960. It is located at the northernmost end of the existing NCP and Proposed Project. The bridge was found eligible for the NRHP and the CRHR as a contributor to the Newell Creek Dam Complex under Criterion A/1 at the local level of significance and eligible for local listing under Santa Cruz County Criterion 2. The character defining features of the bridge are limited to its existing dimensions and its continued use as a contributing component of the Newell Creek Dam Complex. As such, the Newell Creek Access Road Bridge is considered historic property under Section 106 of the NHPA and historical resource under CEQA.

4.4.2.5 Tribal Cultural Resources

To date, the City has not been contacted by Native American tribes requesting notification of projects for the purpose of consultation of tribal cultural resources pursuant to AB 52, with the exception of an individual request for consultation for a specific project. See Section 4.4.3, Regulatory Framework, for information about AB 52 requirements.

A request to the NAHC for a search of the Sacred Lands File (SLF), a list of properties important to local Native American tribes, for the Proposed Project APE. On January 27, 2021, a letter was received from the NAHC with negative findings from the SLF search. The NAHC also provided a list of Native American contacts that might have local knowledge of archaeological or tribal cultural resources near the Proposed Project.

To access additional information from local tribes, on behalf of the City, Dudek sent letters to the Native American contacts provided by the NAHC. On February 3, 2021, Valentine Lopez, Chairman of the Amah Mutsun Tribal Band, sent an email to Dudek indicating that he had no comment on the Proposed Project, but would like to request a Native American monitor from his tribe be present if cultural resources are encountered. On February 10, 2021, Mike Grone, Director of Archaeological Resource Management for Amah Mutsun Land Trust, requested an introduction to the Proposed Project and information on additional resources in the APE. Dudek provided the requested information, and Mr. Grone sent a second correspondence on February 15, 2021 indicating that Amah Mutsun Land Trust had no further comments. A complete record of the NAHC SLF search and Native American outreach effort is included in the archaeological report in Appendix C.

4.4.3 Regulatory Framework

4.4.3.1 Federal

National Historic Preservation Act

The NHPA established the NRHP and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers to carry out some of the functions of the NHPA. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that:

[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP.

Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (16 U.S.C. 470f).

36 CFR Part 800 implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values; to determine whether or not they may be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The content of 36 CFR 60.4 defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the ACHP and the California State Historic Preservation Officer to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Regarding criteria A through D of Section 106, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, cultural resources, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (36 CFR 60.4):

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are associated with the lives of persons significant in our past; or
- 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.

The 1992 amendments to the NHPA enhance the recognition of tribal governments' roles in the national historic preservation program, including adding a member of an Indian tribe or Native Hawaiian organization to the ACHP.

The NHPA amendments:

- Clarify that properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion in the National Register
- Reinforce the provisions of the Council's regulations that require the federal agency to consult on properties of religious and cultural importance.

The 1992 amendments also specify that the ACHP can enter into agreement with tribes that permit undertakings on tribal land and that are reviewed under tribal regulations governing Section 106. Regulations implementing the NHPA state that a federal agency must consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking.

4.4.3.2 State

California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Public Resources Code Section 5020.1[j]; see also CEQA Guidelines Section 15064.5[a]). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code Section 5024.1[a]). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP including associated historic integrity considerations and are enumerated below. According to Public Resources Code Section 5024.1(c)(1–4), a resource is considered historically significant meets at least one of the following criteria:

- 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.
- 4. Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 California Code of Regulations [CCR] Section 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- Public Resources Code Section 21083.2(g) defines "unique archaeological resource."
- Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would "materially impair" the significance of an historical resource (an element of a "substantial adverse change" to the resource) (see discussion below).
- Public Resources Code Section 21074(a) defines "tribal cultural resources."
- Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4(b) provide
 information regarding the mitigation framework for archaeological and historical resources, including
 examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner
 of mitigating impacts to both unique archaeological resources and "historical resources of an
 archaeological nature" because it maintains the relationship between artifacts and the archaeological
 context and may also help avoid conflict with religious or cultural values of groups associated with the
 archaeological site(s).

Historical Resources

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (Public Resources Code Section

21084.1; CEQA Guidelines Section 15064.5[b]). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources or identified as significant in a historical resources survey (meeting the requirements of Public Resources Code Section 5024.1[q]), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); Public Resources Code Section 5020.1[q]). In turn, CEQA Guidelines Section 15064.5(b)(2) states the significance of an historical resource is materially impaired when a project:

- 1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or
- 2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- 3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

Where a project has been determined to conform with the Secretary of the Interior's Standards, the project's impact on historical resources would be considered mitigated to below a level of significance and, thus, not significant (14 CCR Section 15126.4[b][1]). In most cases, a project that demonstrates conformance with the Secretary of the Interior's Standards is categorically exempt from CEQA (14 CCR Section 15331), as described in the CEQA Guidelines:

Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995), the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant (14 CCR Section 15126.4[b][1]).

The Secretary of the Interior's Standards are a series of concepts focused on maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations. They function as common-sense historic preservation principles that promote historic preservation best practices. There are four distinct approaches that may be applied to the treatment of historical resources:

- **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.
- **Restoration** depicts a property at a particular period of time in its history, while removing evidence of other periods.
- Reconstruction recreates vanished or non-surviving portions of a property for interpretive purposes.

The choice of treatment depends on a variety of factors, including the property's historical significance, physical condition, proposed use, and intended interpretation. The Guidelines provide general design and technical recommendations to assist in applying the Standards to a specific property. Together, the Standards and Guidelines provide a framework that guides important decisions concerning proposed changes to a historic property.

Unique Archaeological Resources

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Public Resources Code Section 21083.2[a], [b], and [c]).

Public Resources Code Section 21083.2(g) defines a unique archaeological resource as 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:

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

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (Public Resources Code Section 21083.2[a]; CEQA Guidelines Section 15064.5[c][4]). However, if a non-unique archaeological resource qualifies as tribal cultural resource (Public Resources Code Section 21074[c], 21083.2[h]), further consideration of significant impacts is required. CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in Public Resources Code Section 5097.98.

California Environmental Quality Act Assembly Bill 52 Consultation

State AB 52, effective July 1, 2015, recognizes that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities. The law establishes a separate category of resources in the CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation. Public Resources Code Section 21074 defines a "tribal cultural resource" as either:

- Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Nature American tribe that is either listed, or determined to be eligible for listing, on the national, state, or local register of historic resources; or
- A resource determined by the lead agency chooses, in its discretion and supported by substantial evidence, to treat as a tribal cultural resource.

The California Public Resources Code Section 21084.2 now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." The Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project.

The CEQA lead agency for consultation with local Native American tribes is the City of Santa Cruz. As previously indicated, at the time of preparation of this Draft EIR, the City has not received any AB 52 requests from local tribes that apply to all projects. The agency regulatory contact for the consultation is Danny DeBrito, Santa Cruz, Vater Department, 212 Locust Street, Suite C, Santa Cruz, CA 95060, (831) 420-5135, ddebrio@cityofsantacruz.com.

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (California Health and Safety Code Section 7050.5b). Public Resources Code Section 5097.98 outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (California Health and Safety Code Section 7050.5c). The NAHC would notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

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4.4.3.3 Local

The study area for the Proposed Project includes the unincorporated County of Santa Cruz and the City of Santa Cruz where the Graham Hill Water Treatment Plant (GHWTP) is located. The general plans and, where relevant, the local coastal programs of these jurisdictions include policies and programs related to cultural resources. Specific details are provided in this section about the County and City codes related to the historic inventories of these jurisdictions, as this information was used in the evaluation of the Proposed Project.

Santa Cruz County Code

Historic Resources Inventory

Cultural Landmarks in the County of Santa Cruz are termed Historic Resources and are under the aegis of the County of Santa Cruz Planning Department. A list of Historic Resources is maintained in the County's Historic Resources Inventory, which identifies those Historic Resources located in the unincorporated areas of the County. Historic Resource is defined in Chapter 16:42 Historic Preservation within Title 16: Environmental and Resource Protection as follows (County Code 16.42.030 (I) [Ord. 5061 § 28, 2009; Ord. 4922 § 1, 2008]):

... any structure, object, site, property, or district which has a special historical, archaeological, cultural or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the County, State, or nation, and which either has been referenced in the County General Plan, or has been listed in the historic resources inventory adopted pursuant to SCCC 16.42.050 and has a rating of significance of NR-1, NR-2, NR-3, NR-4, or NR-5.

In order to be placed on the County Historic Resources Inventory, a property must first be evaluated for its ability to meet one or more of the following criteria: (County Code 16.42.050 Historic Resource Designation [Ord. 4922 § 1, 2008]).

- 1. The resource is associated with a person of local, state or national historical significance.
- 2. The resource is associated with an historic event or thematic activity of local, State or national importance.
- 3. The resource is representative of a distinct architectural style and/or construction method of a particular historic period or way of life, or the resource represents the work of a master builder or architect or possesses high artistic values.
- 4. The resource has yielded, or may likely yield, information important to history.

Santa Cruz County Historic Districts

The County of Santa Cruz defines Historic District as (County Code 16.42.030 (E) [Ord. 5061 § 28, 2009; Ord. 4922 § 1, 2008]):

- 1. Have character of special historic or aesthetic interest or value; and
- 2. Represent one or more periods or styles of architecture typical of one or more eras in the history of the County; and

3. Cause such area, by reason of these factors, to constitute a geographically definable area possessing a significant concentration or continuity of sites, buildings, structures, or objects that are unified by past events, or aesthetically by plan or physical development.

City of Santa Cruz Municipal Code

Historic District

Chapter 24.06, Part 2 Historic District Designation, provides procedures for the designation of a historic district. The criteria of a designated historic district include:

- The proposed historic district is a geographically definable area possessing a significant concentration
 or continuity of sites, buildings, structures, or objects unified by past events, or aesthetically by plan
 or physical development.
- 2. The collective value of the historic district taken together may be greater than the value of each individual structure.
- 3. The proposed designation is in conformance with the purpose of the City's historic preservation provisions, set forth in Section 24.12.400 of this title and the City's Historic Preservation Plan and the General Plan.

Historic Preservation

Chapter 24.12, Part 5 (Historic Preservation) of the City of Santa Cruz Municipal Code outlines methods and regulations for the protection, enhancement, perpetuation and use of structures, districts, lands, and neighborhoods of historic, archaeological, architectural, and engineering significance. The purpose of provisions in this chapter related to historic preservation is to:

- 1. Designate, preserve, protect, enhance, and perpetuate those historic structures, districts, and neighborhoods contributing to cultural and aesthetic benefit of Santa Cruz;
- 2. Foster civic pride in the beauty and accomplishments of the past;
- 3. Stabilize and improve the economic value of certain historic structures, districts, and neighborhoods;
- 4. Protect and enhance the city's cultural, archaeological and aesthetic heritage;
- Promote and encourage continued private ownership and use of such buildings and other structures now so owned and used, to the extent that the objectives listed above can be obtained under such policy;
- 6. Serve as part of the Local Coastal Implementation Plan for the Coastal Program.

4.4.4 Impacts and Mitigation Measures

This section contains the evaluation of potential environmental impacts associated with the Proposed Project related to cultural resources and tribal cultural resources. The section identifies the thresholds of significance used in evaluating the impacts, describes the methods used in conducting the analysis, and evaluates the Proposed Project's impacts and contribution to significant cumulative impacts, if any are identified. Mitigation

measures are presented for identified significant or potentially significant impacts, and the level of significance with mitigation also is identified.

4.4.4.1 Thresholds of Significance

The thresholds of significance used to evaluate the impacts of the Proposed Project related to cultural resources and tribal cultural resources are based on statutory language found in Public Resources Code Sections 21083.2(a), 21084.1, 21084.2, CEQA Guidelines Section 15064.5(b), Appendix G of the CEQA Guidelines, and the City of Santa Cruz CEQA Guidelines. A significant impact would occur if the Proposed Project would:

- A. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- B. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5.
- C. Disturb any human remains, including those interred outside of formal cemeteries.
- D. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074.

4.4.4.2 Analytical Methods

This section evaluates the potential cultural resources and tribal cultural resources impacts associated with construction of the Proposed Project. Once construction is complete, operation and maintenance will occur as currently exists, and there would be no operational activities that would potentially affect cultural resources as there would be no ground disturbance or alteration of structures.

Records Search and Native American Coordination

As described above, a CHRIS records search and a NAHC Sacred Lands File search were conducted for the Proposed Project in April 2020. The CHRIS search included a review of the NRHP, CRHR, California Inventory of Historic Resources, historical maps, and local inventories. Additionally, Native American tribes and tribal organizations were contacted in response to NAHC recommendations for making contact when the Sacred Lands File search was completed by NAHC.

Surveys

Pedestrian surveys of the APE occurred December 2, 9, and 16, 2020. An archaeological reconnaissance was conducted by a qualified archaeologist using standard archaeological procedures and techniques. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory. The land area was surveyed in pedestrian transects with approximately 15- to 20-meter spacing. A qualified architectural historian also conducted a pedestrian survey of the study area. The survey entailed walking all accessible portions of the study area and documenting the site with notes and photographs, specifically noting character-defining features, spatial relationships, and observed alterations, and examining any historic landscape features on the property. See Appendix C for further details on survey methods.

Historical Resources

Projects can result in a substantial adverse change in the significance of a historical resource if they would cause physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5). According to Appendix C, two historic era-built environment resources were identified in the APE: the NCP and the Newell Creek Access Road Bridge.

Archaeological Resources

Archaeological sites are usually adversely affected only by physical destruction or damage that can be caused by grading and excavation, trenching, weather-induced erosion, etc. Impacts to archaeological resources and human remains most often occur as the result of excavation or grading within the vertical or horizontal boundaries of a significant archaeological site. Archaeological resources may also suffer impacts as the result of project activity that increases erosion, or increases the accessibility of a surface resource, and thus increases the potential for vandalism or illicit collection. Because archaeological resources often are buried or cannot be fully defined or assessed on the basis of surface manifestations, substantial ground-disturbing work may have the potential to uncover previously unidentified resources, including archaeological deposits and human remains. As precise fill depths may not be known in all cases, it must be assumed that any ground-disturbing activities in any portion of the study area where development will occur could potentially affect unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources.

Application of Relevant Standard Construction Practices

The Proposed Project includes standard construction practices (see Section 3.6.6, Standard Construction Practices), that the City would implement to avoid or minimize effects to archaeological resources and human remains. These practices and their effectiveness in avoiding and minimizing effects are described below.

If archaeological resources (sites, features, or artifacts) are exposed during construction, Standard Construction Practice #24 requires construction activities to stop within a 100 feet radius of any finds, temporary flagging around the resources, and evaluation of the significance of the finds by a qualified archaeologist. If the archaeologist observes the discovery to be potentially significant under CEQA, preservation in place or additional treatment may be required. This practice requires work stoppage to evaluate the significance of a potential archaeological resource and defers to the judgement of a qualified archaeologist as to the appropriate treatment of such a significant resource, if found, and sets forth procedures to be followed. The archaeologist may record the find to appropriate standards (thereby addressing any data potential) and allow work to continue.

If human remains are exposed during construction, Standard Construction Practice #25 requires the implementation of State and Federal laws that protect Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. The legal requirements are contained in Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Section 106 of the National Historic Preservation Act (see Section 4.4.3.2, State, for details). These laws are effective in that they require construction work to stop, notification of the lead agency staff and County Coroner, notification of the NAHC

and the MLD, and the appropriate treatment of the remains. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Impacts have been evaluated with respect to the thresholds of significance, as described above. In the event adverse environmental impacts would occur even with consideration of applicable policies and regulations and Proposed Project Standard Construction Practices described in Chapter 3, Project Description, impacts would be potentially significant, and mitigation measures are provided to reduce impacts to less-than-significant levels.

4.4.4.3 Project Impact Analysis

Impact CUL-1: Historical (Built Environment Resources) (Significance Threshold A). Construction of the Proposed Project would not result in a substantial adverse change in the significance of historical built environment resource. (Less than Significant)

The Proposed Project would result in excavation and ground disturbance to install the new pipeline. Upon completion of construction and once the Proposed Project is operational, the existing NCP would be dewatered and filled with grout as part of decommissioning the existing pipe. The existing NCP was found ineligible under all NRHP and CRHR criteria. As such, the existing NCP does not appear to be a historic property under Section 106 of the NHPA or a historical resource under CEQA, and thus, decommissioning would not result in adverse impacts to a historical resource.

The Newell Creek Access Road Bridge is a concrete access bridge dating from 1960 that is located at the northern end of the Proposed Project in the Newell Creek Road pipe section. The bridge was found eligible for listing in the NRHP and the CRHR as a contributor to the Newell Creek Dam Complex under NRHP/CRHR Criterion A/1 at the local level of significance and eligible for local listing under Santa Cruz County Criterion 2. The character defining features of the bridge are limited to its existing dimensions and its continued use as a contributing component of the Newell Creek Dam Complex. As such, the Newell Creek Access Road Bridge is considered a historic property under Section 106 of the NHPA and a historical resource under CEQA.

The Proposed Project would replace a segment of the existing NCP attached to this bridge. This activity does not pose an adverse effect to the historic resource. The Project would not demolish, destroy, or relocate the Newell Creek Access Road Bridge. Replacement of the existing NCP with a new pipeline would not diminish the integrity of the Newell Creek Access Road Bridge's significant historic features including its original alignment and configuration. The bridge would continue to serve its intended function, such that the bridge would continue to convey its significance as defined by NRHP Criterion A and CRHR 1. The modifications to the bridge would not introduce any new incompatible elements that would diminish the integrity of the bridge. Project alterations would not alter the association between the Newell Creek Access Road Bridge and events and broad patterns of water system infrastructure and water supply planning in the City and county for which the bridge has been determined eligible for listing as a historical resource in the NRHP, CRHR, and local County register. Therefore, the proposed improvements would not adversely impact the physical characteristics that convey the historical significance of the Newell Creek Access Road Bridge as none of the improvements would alter the overall historic integrity of the resource. For the reasons described above, the Proposed Project would result in a less-than-significant impact on historical resources.

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The San Lorenzo River Bridge (36C0085) has been previously determined eligible for listing in the NRHP. This facility is located west of the Proposed Project's San Lorenzo Way pipe section. However, the Proposed Project does not include any actions related to the bridge. It will be left in place and is not part of any Proposed Project related construction or implementation activities. As such there is no potential for the bridge to be adversely affected/impacted by the Proposed Project.

Therefore, construction of the Proposed Project would not result in a substantial adverse change in the significance of a historical resource. Upon completion of construction, operation and maintenance activities would continue as currently exist, and there would be no ground disturbance or alteration of structures, and thus, no impact to historical resources.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to historical resources, and therefore, no mitigation measures are required.

Impact CUL-2: Archaeological Resources and Human Remains (Significance Thresholds B and C). Construction of the Proposed Project would not cause a substantial adverse change in the significance of unique archaeological resources or historical resources of an archaeological nature, and/or disturb human remains. (Less than Significant)

No archaeological resources were identified within the APE during the CHRIS records search, Native American coordination, or archaeological field survey. Three known resources (CA-SCR-78, CA-SCR-112/H, and CA-SCR-162) previously recorded in proximity to the APE were reviewed and assessed in the Project Archaeological Report, Appendix C. The report concluded that due to the location and characteristics of these resources (I.e., areas of previous disturbances and very low artifact density), they are not likely to be impacted by the Proposed Project. Therefore, construction of the Proposed Project would not result in adverse impacts to archaeological resources and human remains, and operation and maintenance activities would be the same as currently exists. However, there is potential for previously unknown, subsurface archaeological deposits and/or human remains to be uncovered during earth disturbing activities. The City's Standard Construction Practice 24 regarding inadvertent discovery of archaeological deposits and Standard Construction Practice 25 regarding inadvertent discovery of human remains identifies measures to be taken to assess a discovery and implement measures, if needed, to avoid or reduce impacts if the resource is determined to be a historical or unique archaeological resource. Therefore, with implementation of the Proposed Project's Standard Construction Practices, impacts to any unknown archaeological resources and human remains identified during construction would be less than significant.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to unique archaeological resources or historical resources of an archaeological nature, and therefore, no mitigation measures are required.

Impact CUL-3: Tribal Cultural Resources (Significance Threshold D). Construction of the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource. (Less than Significant)

The NAHC SLF search did not identify any known tribal cultural resources that intersect the APE, as confirmed by letter from the NAHC on January 27, 2021. To access additional information from local tribes, letters were sent to Native American contacts provided by the NAHC. Valentine Lopez, Chairman of the Amah Mutsun Tribal Band, sent an email indicating that he had no comment on the Proposed Project, but would like to request a Native American monitor from his tribe be present if cultural resources are encountered. However, the correspondence did not provide information regarding potential presence of tribal cultural resources.

The Proposed Project would not impact known archaeological sites, and no tribal cultural resources meeting the definition in the Public Resources Code have been identified. The CHRIS records search, Native American coordination, and field survey did not identify any archaeological resources within the Project sites or any specific cultural resource sensitivity concerns. There are no known resources that intersect the APE that would be considered tribal cultural resources. Furthermore, in the event that unknown, archaeological sites or tribal cultural resources are uncovered during the course of construction Standard Construction Practices #24 and #25 would be implemented, as described above in Impact CUL-2. Therefore, construction and operation of the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to tribal cultural resources, and therefore, no mitigation measures are required.

4.4.4.4 Cumulative Impacts Analysis

This section provides an evaluation of cumulative cultural resources and tribal cultural resources impacts associated with the Proposed Project and past, present, and reasonably foreseeable future projects, as identified in Table 4.0-1 in Section 4.0, Introduction to Analyses, and as relevant to this topic. The geographic area of analysis for cumulative impacts to cultural resources and tribal cultural resources is the County of Santa Cruz.

Impact CUL-4: Cumulative Cultural Resource and Tribal Cultural Resource Impacts (Significance Thresholds A, B, C, and D). Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to cultural resources and tribal cultural resources. (Less than Significant)

As shown in Table 4.0-1, there are numerous cumulative projects that would be located in Santa Cruz County. Some of these cumulative projects would be approved and implemented by the City and some would require discretionary approval from other local agencies in the County. The context for the cultural resources and tribal cultural resources cumulative analysis considers the former territory of the Costanoan or Ohlone people and the historic-era settlement patterns that have occurred over roughly the past two centuries. As there are a limited number of significant cultural resources, the loss of any one cultural resource site could affect the scientific value of others in a region. Implementation of appropriate mitigation measures that are identified

during the discretionary approval process for cumulative projects can help to capture and preserve knowledge of such resources through a range of typical actions (e.g., preservation in place, data recovery, conformance with the Secretary of the Interior's Standards) and federal, state, and local laws can also protect these resources. However, preservation in place is not always feasible, and therefore cumulative projects could result in a potentially significant cumulative impact on cultural resources and tribal cultural resources.

The geographic scope for cumulative impact analysis on cultural resources includes all sites upon which past, present or future activities could affect the same cultural resources as the Proposed Project. As described in the preceding section, construction of the Proposed Project would not result significant impacts related to historic built environment resources (Impact CUL-1), historic or unique archaeological resources (Impact CUL-2) or tribal cultural resources (CUL-3). The proposed Project would not contribute to cumulative impacts related to cultural resources as no cumulative projects have been identified to which the proposed Project would contribute impacts.

4.4.5 References

Dudek. 2021a. Archaeological Resources Inventory and Evaluation Report for the Newell Creek Pipeline Improvement Project. April 2021.

Dudek. 2021b. Historical Resources Inventory, Evaluation and Finding of Effect Report for the Newell Creek Pipeline Improvement Project. June 2021.