

4.4 CULTURAL RESOURCES

4.4.1 INTRODUCTION

This section addresses the potential for the Proposed Project to impact cultural resources both on the project site and in an off-site area that would be disturbed for sewer system upgrades as a result of this project. Following an overview of the environmental setting in **Section 4.4.2** and the relevant regulatory setting in **Section 4.4.3**, project-related impacts and recommended mitigation measures are presented in **Section 4.4.4** and **Section 4.4.5**, respectively.

4.4.2 ENVIRONMENTAL SETTING

The project site consists of approximately 118 acres located within the boundaries of unincorporated Siskiyou County (County), adjacent to the northern limits of City of Mt. Shasta (City; refer to **Figure 3-2**). The defined Study Area for cultural resources as discussed in this section includes the project site, and the right-of-way of South Old Stage Road, South of Ream Road, between Manholes 20 and 19, where construction activities associated with off-site sewer improvements under Options P1 and P2 would occur (refer to **Figure 3-13**). All project construction and staging will be limited to these locations. The final construction plans for the Proposed Project have not been completed, and so the depth of vertical impacts resulting from construction are unknown; however, project construction impacts will be no greater than eight feet deep.

Prehistory

The project region lies in the intermediary valley zone between the Klamath Mountains to the west, the Siskiyou Mountains to the northwest, and the southern Cascade Range to the east, providing access to multiple floral and faunal environments, as well as natural resources created by volcanic activity (e.g. obsidian and basalt).

The earliest known and least understood occupation of California occurred during the Late Pleistocene and Early Holocene eras (10,000 to 8,000 years Before Present [BP]). Early Holocene populations were highly mobile hunter-gatherers. The tool technology of California during the Paleo-Indian period is delineated by fluted projectile points similar to Clovis projectile point types found to the east in the Great Basin. Clovis-type points have been found as close as the McCloud River in Shasta County and the Alkali Basin in southern Oregon (Crawford and Roeder, 2013a; Crawford and Roeder, 2013b).

Greater indications of occupation occur during the Archaic periods (8,000 B.P. to the historic era). Regional activities focused on exploitation of seasonably available resources such as deer, elk, mountain sheep, rabbit, quail, salmon, acorns, grasses, roots, berries, etc. (Hamusek-McGann et al., 1998). The Archaic has been divided into several different patterns reflective of changing cultural groups and technologies.

Borax Lake Pattern (8000 B.P.-5000 BP)

This post-Pleistocene period marked the entry of Hokan speakers into the region. Temperatures were warmer during this pattern than today, displacing vegetation types (and the attendant fauna) upwards to

higher altitudes than the present day. During this time people made extensive use of grass seeds, and so the tool kit is partially represented by milling stones. Other Borax Lake Pattern artifacts include large, wide-stemmed projectile points, manos, and grinding stones. Subsistence likely depended on a combination of big-game hunting supplemented with plant gathering, practiced by small, mobile groups exploiting broad geographic areas (Sundahl, 1992).

Squaw Creek Pattern (5000 BP-3000 BP)

During this time, there was increasing dependence on foraging and a broader tool kit reflecting a more stable hunting/gathering strategy accessing seasonally available resources from a base camp. Stone tools from this pattern included Squaw Creek Contracting Stem and leaf-shaped projectile points, McKee unifaces, manos, cobble spalls, and the introduction of mortar/pestle technology. Inter- and intra-site patterning suggests more intensive habitations, with multiple obsidian sources utilized. This period was coeval with the Windmill period farther south in the Central Valley (Sundahl, 1992).

Whiskeytown Pattern (3000 BP-1700 BP)

The environment became similar to the present day during this period. The tool kit was characterized by large and medium-sized side- and corner-notched points, manos and millingsstones, mortars and pestles, and notched pebble net weights. There was an emphasis on riverine resources, but seasonal foraging in the foothills was still clearly practiced. Basketry cooking was likely introduced in this period (Sundahl, 1992).

Shasta Complex (1700 BP-100 BP)

The Shasta Complex (also known as the Shasta Aspect of the Augustine Pattern) is the best understood period in the region, typified by sedentary villages focused on major rivers and tributaries. Site testing has defined a pattern of recent occupation typified by small projectile points used for bow and arrow (Gunther Series, Desert Side-Notched), drills, large chert blades, shaft smoothers, hopper mortars, bone fishing tools, charmstones, spire-lopped Olivella beads, and pine-nut beads. This assemblage dates within the past 1,500 years, and appears to represent the migration into northern California of the ethnographic Wintu (Sundahl, 1992), though Meighan acknowledged influences from both northwestern and central California.

Ethnography

Three different ethnographic groups occupied the Proposed Project region, including the Wintu in the immediate vicinity, the Yana to the east, and the Nomlaki to the south. As each occupied a slightly different environment, their subsistence strategies and tool kits varied, though overall lifeways were similar.

The distribution of ethnic groups coupled with linguistic studies indicates that the Wintu were a dynamic population, rapidly increasing in numbers, establishing new villages, and expanding their territory. A study of the organization of Wintu villages suggests a comparatively recent expansion eastward by the Wintu into former Yana territory, resulting in a shifting of boundaries. Yana populations were small, and disappeared rapidly after the beginning of the historic era. Jerald Johnson has suggested that the Yana

were dwindling as the result of eastward expansions by the Wintu and Nomlaki and probably would have disappeared completely even if the pressure from Anglo-Americans had not hastened the event.

The Wintu spoke a Penutian language, whereas surrounding tribes spoke Hokan languages; the Wintu may have pushed into the region from the south approximately 1,200-1,300 years ago (Sundahl, 1992). They were a semi-sedentary, foraging group occupying permanent villages near rivers and streams. The availability of resources allowed the Wintu to live in dense settlements, politically organized into independent tribelets, with the largest villages containing about 250 people. Settlements would contain conical bark houses or temporary brush shelters in the summer, with domed brush sweathouses and roundhouses for gatherings.

The Wintu diet would have included deer, rabbits, and other small mammals; fish including salmon, steelhead, Sacramento sucker, freshwater shellfish, and lamprey; grasshoppers, salmon flies, and other insects; acorns, pine nuts, and buckeye, manzanita and other berries, *Brodiaea* spp., and other bulbs, clovers, miner's lettuce, and other greens, grass seeds, and migratory waterfowl.

The Wintun toolkit included grinding implements, digging sticks, fishing equipment, and basketry. Mortars and pestles were used to grind seeds, acorns, pigment, and soften meat. Manos and metates were also used. Bone was used as awls for basketry, harpoons and hooks, and wedges for wood cutting, as well as digging sticks for root retrieval, house excavation, and grave digging made from sharpened hardwood. Soaproot fibers were used for acorn meal brushes, paintbrushes, and hair brushes. Rope and cordage were usually made from iris fibers. Materials such as hazel, skunkbrush, willow, grapevine, redbud, pine root, poison oak, maidenhair fern, porcupine quills, and some grasses were used to create baskets and traps, including sifters, seed beaters, trays, bowls, hats, dippers, hoppers, cooking baskets, burden baskets, storage, and fish traps. Logs were used as bridges; rafts of lashed-together logs were poled across streams, and at several locations along major tributaries, bridges lashed together by grapevines could be found (Crawford, 2007).

History

The first record of European exploration of the County came from Hudson's Bay Company trappers, under Peter Ogden, who passed through the area in the 1820s. Ogden named Mt. Sastise based on the Indian name for what would become Mt. Shasta (Siskiyou County Sesquicentennial Committee, 2016). The County was created in 1852, formed from parts of Shasta and Klamath counties, though it may have been mentioned earlier by Spanish explorers who observed the mountain from a distance, christening the peak Jesus Maria (Hoover et al., 2002). The discovery of gold in the mid-19th century led to a rapid influx of miners, and the founding of a number of towns and camps, including Yreka and the Strawberry Valley area, near the project site. As the rush for gold died out, people turned to ranching and logging, establishing industries that continue to provide work for many County residents.

A trail from the California Bay Area to Oregon was pioneered as early as 1834, curving around the western base of Mt. Shasta, first used for cattle drives, then followed by would-be gold miners and other immigrants, finally operating as a stage route until the establishment of a railroad in the late 1880s (Hoover et al., 2002). One of the stage stops was in Strawberry Valley. A post office was established there in 1870 under the name Berryvale, and J.H. Sisson served as postmaster as well as hotelkeeper.

In 1887 a rail line was built a mile to the east, and the town that sprang up around it was called Sisson. In 1924, the town was renamed Mt. Shasta.

Paleontological Setting

The Study Area is located in the Cascade Range geomorphic province of California, which lies between the Klamath Mountains and Sierra Modoc Plateau provinces north of the Sierra Nevada province in the northernmost portion of California (CGS, 2002). The Cascade Range province is characterized by volcanoes, in addition to being in a region of high seismic activity (USGS, 2014). This region is typically underlain by lava and volcanic debris formed by thousands of small, short-lived volcanoes (NPS, 2014). The Cascade Range first appeared in the late Eocene (36 million years ago [MYA]), with the major peaks visible today created since the Pleistocene (1.6 MYA) (USGS, 2014).

The County is comprised of the Modoc Plateau and Klamath Mountains geomorphic provinces in addition to the Cascade Range province (CGS, 2002). These provinces are similar to the Cascade Range province, in that they are characterized by volcanic activity. The Study Area is located southwest of Mt. Shasta, which has erupted every 600 to 800 years in the past 10,000 years (USGS, 2012). The Study Area is located in an area predicted to have moderate mud flows as a result of volcanic activity at Mt. Shasta and Shastina.

Analytical Environmental Services (AES) completed an online search of the University of California Museum of Paleontology's (UCMP) online database in August 2016 to identify unique paleontological resources in or near the Study Area (UCMP, 2016). This database search indicated that fossils have been recorded in the County, primarily in the mountains north and west of the Study Area. These fossils include marine species such as gastropods, bivalves, and trilobites, though some tree species, microfossils, mammoth, camel, and shrub-ox have also been found. The closest specimens identified come from Grizzly Peak, approximately 20 miles west of the City. The project site is underlain by pyroclastic volcanic flows from Mt. Shasta, which would not include fossil remains (Wagner and Saucedo, 1987). The volcanic activity which characterizes the geology of the project region largely precludes the possibility of fossil resources.

Cultural Resources Identification Efforts

Records Search and Literature Review

A records search for the Proposed Project site and off-site sewer improvements area was conducted at the Northeast Information Center (NEIC) of the California Historical Resources Information System by NEIC staff, on August 24, 2016 (NEIC File No. D16-84). The NEIC, an affiliate of the state of California Office of Historic Preservation, is the official state repository of archaeological and historic records and reports for an 11-county area that includes the County. Additional research was conducted using files and literature maintained at AES, as well as internet resources.

The records search and literature review for this study were done to (1) determine whether known cultural resources have been recorded within or adjacent to the study area and determine if the project site has been subject to survey in the past; (2) assess the likelihood of unrecorded cultural resources based on

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archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

Sources reviewed include:

- The National Register of Historic Places (2012);
- The California Register of Historical Resources (2012);
- California Points of Historical Interest (2012);
- California Inventory of Historic Resources (1976);
- California Historical Landmarks (2012);
- Directory of Properties in the Historic Property Data Files for Siskiyou County;
- Handbook of North American Indians, Vol. 8, California (1978);
- Historic Spots in California (2002); and
- Various historic maps.

General Land Office Plat maps for the Study Area were examined; the 1877 survey map included early roads crossing Section 21, near the off-site sewer improvements area, including a road from Yreka to Redding, as well as Sissons Fish Pond located east of what is now the City; other historic roads appear by the 1883 revision of that map. The City of Mt. Shasta historic USGS quadrangle (1894) and Shasta Special Map (1897) do not reveal any resources within the Study Area, though by 1954 (as depicted on the USGS quadrangle map), the McCloud River Railroad, Southern Pacific Railroad, and various other roads and structures are visible near the project site. A search of land patent records (BLM, 2016) indicates that in 1882 Jane White was granted a homestead patent on portions of Section 21, near the off-site sewer improvements area, and that in 1887 Maria White was similarly granted portions of Section 21.

Historic Spots in California states that the Oregon-California Trail passed near the Study Area, and identifies Strawberry Valley Stage Station as California State Landmark No. 396. The stage station operated from 1857 to 1886.

The records search revealed that portions of both the project site and off-site sewer improvements area have been previously subject to a cultural resources study, that no prehistoric resources have been identified within the Study Area, and that historic resources have been found within 0.25 miles of both the project site and off-site sewer improvements area (**Tables 4.4-1** and **4.4-2**).

TABLE 4.4-1
CULTURAL RESOURCES WITHIN 0.25-MILE OF THE AREA OF POTENTIAL EFFECTS (APE)

| Primary No. | Trinomial No. | Description | Date Recorded | In Study Area? |
|---------------------|---------------|--|--|----------------|
| P-47-2325 | CA-SIS-2325H | McCloud River Railroad Historic District | 1988, 1995, 1996, 1997, 2001, 2002, 2003, 2004, 2005 | No |
| P-47-2446 | CA-SIS-2446H | Barnard to Rainbow Railroad or Deer Creek Railroad | 1996, 1997 | No |
| P-47-3890 | CA-SIS-3890H | Big Springs Ditch | 2004 | No |
| P-47-4095 | CA-SIS-4095 | Prehistoric lithic scatter | 1991 | No |
| Source: NEIC, 2016. | | | | |

TABLE 4.4-2
CULTURAL RESOURCES STUDIES WITHIN 0.25-MILE OF THE APE

| Report No. | Author(s) | Title | Date | Report include Study Area? |
|------------|--|---|------|--|
| 585 | Martin, Ilse B., David T. Hodder, and Clark Whitaker | Overview of the Cultural Historic Resources of Euro-American and Other Immigrant Groups in the Shasta-Trinity National Forest | 1981 | Yes – both Project Site and Off-Site Improvements Area |
| 1421 | Peak, Ann | Cultural Resources Assessment of AT&T's Medford, Oregon, to Redding, California, Fiber Optic Cable | 1988 | No |
| 1620 | Jensen, Peter M. | Archaeological Inventory Survey for City of Mt. Shasta Proposed Annexation Project | 1997 | Yes - Off-Site Improvements Area |
| 3684 | Winthrop, Kathryn | Cultural Resource Survey of Approximately 237 Acres for The Siskiyou Lake Highlands Development, Siskiyou County, California | 1991 | No |
| 7167 | Jensen, Peter M. | Archaeological Inventory Survey Roseburg Infrastructure Improvement Project, Mt. Shasta, Siskiyou County, California | 2004 | No |
| 7362 | Arrington, Cindy, and Bryon Bass | Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California | 2006 | No |
| 12349 | Meyer, Jack | A Geoarchaeological Overview and Assessment of Northeast California; Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties | 2013 | Yes - Project Site and Off-Site Improvements Area |

Source: NEIC, 2016.

Native American Consultation

On June 2, 2016, AES sent a request to the Native American Heritage Commission (NAHC) on behalf of the County, requesting both a search of the Sacred Lands files and for a list of contacts appropriate for Assembly Bill (AB) 52 consultation. The NAHC replied on June 6, 2016 and identified two tribes, the Quartz Valley Indian Community and Shasta Nation; no sites were identified in the Sacred Lands files.

On June 10, 2016, the County sent letters to the Karuk Tribe, Quartz Valley Indian Community, the Shasta Nation, Winnemem Wintu Tribe, and the Torres Martinez Desert Cahuilla Indians, all of whom had previously contacted the County, asking to be included on a contacts list for AB 52 notifications. As a result, the County sent letters to those five tribes, initiating consultation under the requirements of AB 52.

On July 14, 2016, the Winnemem Wintu Tribe emailed the County with a formal request for AB 52 consultation, and has stated that the Proposed Project would have potentially significant adverse effects on Tribal Cultural Resources (TCRs). The Winnemem Wintu Tribe then provided the County with information concerning the TCRs and what would constitute effects on those TCRs. As required by CEQA (PRC 21082.3), this information is maintained in **Confidential Appendix V**, which is not subject to disclosure to the public in order to protect the cultural resources.

Field Survey

On August 24, 2016, AES archaeologist Charlane Gross, M.A., RPA, conducted a pedestrian survey of the potential areas of ground disturbance within Study Area, including the central portion of the project site (fenced plant area south of Ski Village Drive, which is inclusive of all areas of impact under the Proposed Project Wastewater Treatment Options 1-3), potential irrigation areas in the eastern and northern portions of the project site (which, when added to the Central site, is inclusive of all areas of impact under Option 4 for water treatment), and off-site sewer improvements area.

In both the eastern and northern proposed irrigation areas (refer to **Figure 3-11**) and along the reclaimed water line corridor (**Figure 3-12** and **3-13**), vegetation, primarily consisting of manzanita and pine, was dense, preventing regularly spaced transects. Because there was no nearby water source elevating the potential for prehistoric sites, transects consisted of meandering lines spaced approximately 100 feet apart which targeted open spaces between the manzanita patches. The un-vegetated areas offered excellent ground surface visibility, averaging approximately 25 percent overall. A rock-lined ditch was visible crossing the proposed northern irrigation area. Sparsely scattered glass, industrial earthenware, and plastic fragments were noted in the northern section of the project site. The proposed eastern irrigation area likewise included a sparse modern debris scatter as well as a consistent layer of shredded bark from former lumbermill operations. A large earthen berm separated the eastern irrigation area from the central plant section of the project site. No cultural resources were identified.

Within the central section of the project site, it was noted that an asphalt apron surrounds the plant building, with an unpaved slope to the south of the building; this sloped area has been contoured and altered from its natural condition. The slope was investigated utilizing parallel pedestrian transects spaced approximately 25 feet apart. No cultural resources were identified.

The off-site sewer improvement area, including the entire right-of-way of South Old Stage Road between Manholes 20 and 19, was surveyed by a single linear transect on either side of the roadway. The right-of-way area consisted of pavement and areas heavily vegetated with grasses, blackberry, and other plants which precluded ground surface visibility. Overall, ground surface visibility averaged less than one percent in the right-of-way as well as areas immediately adjacent to the road and road shoulder. No cultural resources were identified.

4.4.3 REGULATORY CONTEXT

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Several laws and regulations at the state level govern archaeological and historic resources deemed to have scientific, historic, or cultural value. The pertinent regulatory framework, as it applies to the Proposed Project, is summarized below.

State

California Environmental Quality Act (CEQA)

California Environmental Quality Act (CEQA) requires that, for projects financed by or requiring the discretionary approval of public agencies in California, the effects of the project on historical resources must be considered (Public Resources Code [PRC] Section 21083.2). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 50201).

Under the CEQA Guidelines, an effect is considered significant if a project will result in a substantial adverse change to the resource (PRC Section 21084.1). Actions that would cause a substantial adverse change to a historical resource include demolition, replacement, substantial alteration, and relocation. Before the significance of impacts can be determined and mitigation measures developed, the significance of cultural resources must be determined. The 2000 CEQA *Guidelines* (Section 15064.5) define four cases in which a property may qualify as a significant historical resource for the purposes of CEQA review:

- A. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR). Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:
 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, 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.
- B. In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association. Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC section 5024.1[d][1]).
- C. The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the PRC, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- D. The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record.

- E. The lead agency determines that the resource may be a historical resource as defined in PRC section 5020.1(j) or 5024.1.

CEQA also provides for the protection of *unique archaeological resources*. PRC Section 21083.2 defines 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 one or more of the following criteria: (1) that it contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information; (2) that it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA provides protection for unique paleontological resources and unique geologic features, and requires that planners consider impacts to such resources in the project review process. CEQA distinguishes between ubiquitous fossils that are of little scientific consequence, and those, which are of some importance by providing protection for the latter. While CEQA does not precisely define unique paleontological resources, criteria established by the Society of Vertebrate Paleontology (SVP) provide guidance. The SVP defines a significant paleontological resource as one that meets one or more of the following criteria (SVP, 1995):

Provides important information shedding light on evolutionary trends and/or helping to relate living organisms to extinct organisms; provides important information regarding the development of biological communities; demonstrates unusual circumstances in the history of life; represents a rare taxon or a rare or unique occurrence, is in short supply and in danger of being destroyed or depleted; has a special and particular quality, such as being the oldest of its type or the best available example of its type; or provides important information used to correlate strata for which it may be difficult to obtain other types of age dates.

Assembly Bill 52

AB 52 mandates early tribal consultation prior to and during CEQA review for those tribes which have formally requested, in writing, notification on projects subject to AB 52, i.e. projects which have published Notices of Preparation (NOPs) for Environmental Impact Reports (EIRs) or Notices of Intent to adopt Negative Declarations or Mitigated Negative Declarations since July 1, 2015 (PRC section 21080.3.1). The bill establishes a new category of TCRs for which only tribes are expert; these resources may not necessarily be visible or archaeological, but could be religious or spiritual in nature. Significant impacts to a Tribal Cultural Resource are considered significant effects on the environment (PRC section 21084.2).

Local

Siskiyou County General Plan: Conservation Element

The project site is located within unincorporated Siskiyou County and thus is subject the County's General Plan. The Conservation Element of the Siskiyou County General Plan (1980) contains the following objective and recommendations relating to historic and archeological resources that are applicable to the Proposed Project.

Objective

Preserve, protect and develop the County's Archaeological, Paleontological and Historic as well as Geologic sites.

Recommendation:

- 1: Siskiyou County strictly enforce the State Laws prohibiting the unauthorized excavation of artifacts on all lands under its jurisdiction.

- 2: Scientific excavation should be encouraged and directed to the Siskiyou County Museum or Historical Society for guidance and to assure the proper excavation, cataloging and documentation procedures are followed to assure the validity and authenticity of any and all finds.

City of Mt. Shasta General Plan: Open Space and Conservation Element

Potential off-site sewer improvements related to the Proposed Project (Options P1 and P2) would occur within the jurisdiction of the City.

Goal OC-8 Preserve areas of significant cultural resources.

Policy OC-8.1 Ensure that appropriate measures are taken concerning protection or study of significant cultural resources.

Implementation Measure OC-8.1(a): When projects are proposed on lands identified as having High Cultural Resource Sensitivity, the application shall be accompanied by a Cultural Resources Reconnaissance and Archival Report conducted and compiled by a qualified archaeologist. If there is the likelihood that cultural resources are present on the site, the City may require field study to determine the location, potential for disturbance, and scope of mitigation.

Implementation Measure OC-8.1(b): When projects are proposed on lands identified as having Medium Cultural Resource Sensitivity, the application shall be accompanied by an Archival Report compiled by a qualified archaeologist. If there is likelihood that cultural resources are present on the site, the City may require a field reconnaissance or other similar study to determine the location, potential for disturbance, and scope of mitigation.

Implementation Measure OC-8.1(b): The scope of mitigation shall conform to the requirements of the California Environmental Quality Act with an emphasis on avoiding, if feasible, disturbance of the cultural resource. Avoidance may be accomplished by capping the site, if appropriate.

Implementation Measure OC-8.1(d): When approving construction projects, the City shall incorporate the following mitigation measure, or a similar measure that would fulfill the intent: Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, or architectural remains be encountered during development activities, work shall be suspended and the City Planning Department shall be

immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with an appropriate specialist (e.g., archaeologist or architectural historian). The project proponent shall be required to implement mitigation necessary for the protection of cultural resources. The City and the project applicant shall consider mitigation recommendations presented by a qualified archeologist for any unanticipated discoveries. The City and the project applicant shall consult and agree upon implementation of a measure or measures that the City and project applicant deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.

Implementation Measure OC-8.1(e): When approving construction projects, the City shall incorporate the following mitigation measure, or a similar measure that would fulfill the intent: If human remains are discovered, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code [PRC] and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

Implementation Measure OC-8.1(f): When approving construction projects, the City shall incorporate the following mitigation measures, or similar measures that would fulfill the intent: Should any potentially unique paleontological resources (fossils) be encountered during development activities, work shall be suspended and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist. The project proponent shall be required to implement mitigation necessary for the protection of paleontological resources. The City and the project applicant shall consider the mitigation recommendations of the qualified paleontologist for unanticipated discoveries. The City and the project applicant shall consult and agree upon implementation of a measure or measures that the City and project applicant deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.

4.4.4 IMPACTS

Method of Analysis

The analysis included a combination of background and online research, an archaeological record search, historic map review, Native American consultation, and a field survey.

As discussed in **Section 4.0**, to provide a conservative analysis, this EIR evaluates impacts resulting from all modifications undertaken and proposed by Crystal Geysers Water Company (CGWC) to operate the proposed bottling facilities; therefore, the environmental impacts of construction activities occurring prior to the publication of the NOP in June 2016, proposed future construction activities, and operation are evaluated below. The environmental setting as it existed in 2013, when CGWC purchased the property,

forms the baseline from which impacts associated with prior construction activities are measured and evaluated, and the existing environmental setting (2016) forms the baseline from which proposed construction activities and operation is measured. Because the facilities previously installed by CGWC were installed within paved, graveled, or landscaped areas of the project site, the environmental baseline setting for cultural resource areas has not changed between 2013 and June 2016.

The potential for cultural resource impacts resulting from off-site sewer improvements in South Old Stage Road is addressed below. The potential for environmental impacts from the off-site improvements described in **Section 3.7** that would serve the Proposed Project, but would occur with or without the Proposed Project, is analyzed in **Section 4.12, Utilities**. Environmental effects from the planned City of Mt. Shasta State-Mandated Wastewater Treatment and Outfall Improvement Project are discussed in **Section 4.12.1, Impact 4.12-4**. Environmental effects from the proposed Lassen Substation Project are discussed in **Section 4.12.3, Impact 4.12-7**.

Thresholds of Significance

The following significance criteria associated with cultural resources have been adapted from Appendix G of the CEQA *Guidelines*. An impact to cultural resources is considered significant if implementation of the Proposed Project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in PRC 21083.2, CEQA *Guidelines* Section 15064.5; or
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA *Guidelines* Section 15064.5; or
- Destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries; or
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k)? or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

CEQA *Guidelines* Section 15064.5 defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

Project Impacts

| | |
|--------------------------------------|---|
| IMPACT 4.4-1 | CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL OR ARCHAEOLOGICAL RESOURCE AS DEFINED IN CEQA GUIDELINES, SECTION 15064.5 |
| Significance | Potentially Significant |
| Mitigation Measures | MM 4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries MM S-4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries at Off-Site Sewer Improvements |
| Significance After Mitigation | Less than Significant |

As discussed in **Section 4.4.2**, no known archaeological or historical resources were identified within either the Proposed Project or Off-Site Improvements areas either during the record search or field survey. Plant operations would therefore not have any impacts to cultural resources. There is always the possibility, however remote, that previously unknown resources could be encountered during subsurface construction activities. This is a **potentially significant** impact. Recommended mitigation for potential impacts to as-yet unknown cultural resources are specified below. Implementation of **Mitigation Measure 4.4-1** for the project site and **Mitigation Measure S-4.4-1** for the off-site sewer improvements area would ensure that inadvertently discovered resources that may be eligible to the CRHR are identified and important information these sites is recovered. These actions would reduce potential impacts to previously unidentified cultural resources to a **less-than-significant** level.

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| IMPACT 4.4-2 | DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE |
| Significance | Potentially Significant |
| Mitigation Measures | MM 4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries MM S-4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries at Off-Site Sewer Improvements |
| Significance After Mitigation | Less than Significant |

As discussed in **Section 4.4.2**, it is highly unlikely that unique paleontological or geologic features exist within either the project site or off-site sewer improvements area for Options P1 and P2. There is a possibility, however remote, that previously unknown paleontological or geologic features could be encountered during subsurface construction activities. This is a **potentially significant** impact. Implementation of **Mitigation Measure 4.4-1** for the project site and **Mitigation Measure S-4.4-1** for the

off-site sewer improvements area would ensure that inadvertently discovered paleontological or geologic features are identified and important information these features is recovered. These actions would reduce potential impacts to previously unidentified paleontological or geologic features to a **less-than-significant** level.

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| IMPACT 4.4-3 | DISTURB HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES |
| Significance | Potentially Significant |
| Mitigation Measures | MM 4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries MM S-4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries at Off-Site Sewer Improvements |
| Significance After Mitigation | Less than Significant |

As discussed in **Section 4.4.2**, no known human remains or cemeteries occur within the project site or off-site sewer improvements area. There is always the possibility, however, that previously unknown human remains could be encountered during subsurface construction activities. This is a **potentially significant** impact. Recommended mitigation for potential impacts human remains is specified below. Implementation of **Mitigation Measure 4.4-1** for the project site and **Mitigation Measure S-4.4-1** for the off-site sewer improvements area would ensure that inadvertently discovered burials are addressed in accordance with applicable sections of the PRC and Health and Safety code. These actions would reduce potential impacts to previously unidentified human remains to a **less-than-significant** level.

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| IMPACT 4.4-4 | CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE, DEFINED IN PUBLIC RESOURCES CODE SECTION 21074 AS EITHER A SITE, FEATURE, PLACE, CULTURAL LANDSCAPE THAT IS GEOGRAPHICALLY DEFINED IN TERMS OF THE SIZE AND SCOPE OF THE LANDSCAPE, SACRED PLACE, OR OBJECT WITH CULTURAL VALUE TO A CALIFORNIA NATIVE AMERICAN TRIBE |
| Significance | Less than Significant |
| Mitigation Measures | None Required |
| Significance After Mitigation | Less than Significant |

As discussed in **Section 4.4.2**, the Winnemem Wintu Tribe contacted the County to request AB 52 consultation, and has stated that the Proposed Project would have significant adverse effects on TCRs.

During consultation, the County received information from the Winnemem Wintu Tribe concerning TCRs that could potentially be affected by the Proposed Project and what would constitute effects on the TCRs. The Tribe has stated that it wishes to continue consultation regarding measures to mitigate or avoid a significant effect and the County is continuing to consult at this time. Consultation under AB 52 will conclude when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

Based on the information received regarding the TCRs, the County concludes that should there be effects on groundwater levels or on surface or groundwater quality as a result of the project, there could be a significant impact on TCRs. These issues are addressed in **Section 4.8** of the EIR, and the findings are summarized as follows:

Groundwater and Surface Water Effects

The potential impacts of the project on groundwater and on Big Springs are presented in detail in **Impact 4.8-2** of this EIR. Substantial data is presented in this analysis from long-term monitoring of wells and springs, including during the previous operation of the bottling plant. Based on this data and on modeling of projected water use, the conclusion of the analysis is that the Proposed Project will not result in significant impacts to groundwater supplies, wells, and stream flows.

Water Quality

Options 1 and 2 - Industrial Wastewater Treated and Discharged from the City's Wastewater Treatment Plant (WWTP)

Industrial process and rinse wastewater would be discharged into the City's sewer system under Wastewater Treatment Option 1 and industrial process wastewater would be discharged into the City's sewer system under Wastewater Treatment Option 2 (**Section 3.5.8.3**). As discussed above, the City's wastewater treatment plant (WWTP) compliance with the Waste Discharge Requirement (WDR) and Time Schedule Order would ensure that impacts to water quality would be less than significant.

The potential for the City's WWTP to exceed wastewater treatment requirements of the Central Valley Regional Water Quality Control Board (CVRWQCB) as a result of the treatment of industrial wastewater generated by the Proposed Project is analyzed in **Section 4.12.1, Impact 4.12-1**. As discussed therein, the City has issued a draft of the Permit for Industrial Wastewater Discharge for the Proposed Project (**Appendix I**) which, as required by the City's Code, includes conditions and sampling and testing protocols for the Proposed Project that are designed to ensure that the City's WWTP will be able to comply with the requirements set forth in the WDR Order and Time Schedule Order issued to the City by the CVRWQCB. The analysis concludes that compliance with the Permit for Industrial Wastewater Discharge, once issued by the City, would ensure that the Proposed Project would result in less-than-significant impacts related to the wastewater treatment requirements of the CVRWQCB and no mitigation is required. Therefore potential impacts to water quality from the treatment and disposal of industrial wastewater generated by the Proposed Project under Wastewater Treatment Options 1 and 2 would be **less than significant** and no mitigation is required.

Options 2, 3, and 4 - Industrial Wastewater discharged on the Project Site

As described in **Section 3.5.8.3**, industrial rinse wastewater would be disposed of on site under Wastewater Treatment Option 2 and industrial process and rinse wastewater would be disposed of on site under Wastewater Treatment Options 3 and 4. The impacts of these alternatives are presented in detail in the discussion of **Impact 4.8-1** of this EIR. The following is a summary of the findings of that analysis.

Wastewater Treatment Option 3

Under Wastewater Treatment Option 3, industrial process and rinse wastewater from the production of sparkling and flavored water would flow to a series of two below grade concrete holding tanks and then sent to the pH neutralization system to treat the pH of the flow stream to acceptable pH limits before being discharged to the existing leach field system. The water proposed to be discharged to a leach field under Wastewater Treatment Option 3 would involve different constituents than what is currently permitted under WDR Order 5-01-233; therefore, implementation of Wastewater Treatment Option 3 would require a modified WDR permit from the CVRWQCB.

As shown in **Table 4.8-4** and **4.8-5**, the estimated concentration of constituents in the industrial process wastewater effluent generated by the Proposed Project under Wastewater Treatment Option 3 would be much less than the California Maximum Contaminant Level (MCL) for drinking water and the resulting concentration in the shallow aquifer underneath the leach field would be even less than the generated effluent due to the natural filtration during percolation and dilution from mixing with the existing groundwater. Therefore, although the resulting concentration of constituents in shallow groundwater is higher than existing conditions, the impact to water quality would be less than significant. Further, prior to discharge into the leach field under Wastewater Treatment Option 3, a modified WDR would be obtained from the CVRWQCB which, similar to the current WDR permit, would include monitoring and reporting requirements to ensure impacts to groundwater quality are minimized. Potential impacts to groundwater quality from the disposal of industrial rinse and process wastewater generated by the production of sparkling and flavored water under Wastewater Treatment Option 3 would be, therefore, **less than significant** and no mitigation is required.

Wastewater Treatment Option 4

Under Wastewater Treatment Option 4, industrial rinse water would be discharged into the Plant's on-site leach field, as described in Wastewater Treatment Option 2, while industrial process wastewater would be treated on site before being discharged into the Plant's existing on-site leach field, which would be expanded to accommodate additional flows, or the proposed on-site irrigation system. The water proposed to be discharged to a leach field under Wastewater Treatment Option 4 would involve different constituents than what is currently permitted under WDR Order 5-01-233; therefore, implementation of Wastewater Treatment Option 4 would require a modified WDR permit from the CVRWQCB. Once treated at the proposed on-site wastewater treatment system (WWTS) the water quality of the effluent to be discharged via the leachfields or the proposed on-site irrigation system would be similar to the water quality of the groundwater under the project site. The water quality of the effluent would be further improved through the natural filtration during percolation and dilution from mixing with the existing groundwater. Further, prior to discharge into the leach field under Wastewater Treatment Option 3, a

modified WDR would be obtained from the CVRWQCB which, similar to the current WDR permit, would include monitoring and reporting requirements to ensure impacts to groundwater quality are minimized. Potential impacts to groundwater quality from the disposal of industrial rinse and process wastewater generated by the under Wastewater Treatment Option 4 would be, therefore **less than significant** and no mitigation is required.

Based on the analysis presented in **Impacts 4.8-1** and **4.8-2**, the Proposed Project would not result in significant impacts on the TCRs that have been identified through AB 52 consultation.

Cumulative Impacts

| IMPACT 4.4-5 | CUMULATIVE IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES |
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| Significance | Potentially Significant |
| Mitigation Measures | MM 4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries MM S-4.4-1: Cease Work and Implement Procedures for Unanticipated Discoveries at Off-Site Sewer Improvements |
| Significance After Mitigation | Less than Significant |

Potential cumulative projects in the vicinity of the Study Area, including growth resulting from build-out of the City and County General Plans have the potential to impact cultural and paleontological resources. Archaeological, historic, tribal and paleontological resources are afforded special legal protections designed to reduce the cumulative effects of development. Potential cumulative projects and the Proposed Project would be subject to the protection of cultural resources afforded by the CEQA *Guidelines* Section 15064.5, related provisions of the PRC, AB 52, and relevant local policies, including the City’s required mitigation measures for construction projects. Given the non-renewable nature of these resources, any impact to CRHR-eligible sites, paleontological resources, or TCRs could be **potentially significant**. As discussed in **Section 4.4.4**, no known archaeological or historical resources were identified within the Study Area. **Mitigation Measures 4.4-1** and **S-4.4-1** provide for the protection of unanticipated discoveries, including human remains, during ground disturbing activities. With the implementation of these mitigation measures, the Proposed Project’s incremental contribution to cumulative impacts to cultural and paleontological resources is **less than significant**.

4.4.5 MITIGATION MEASURES

The following mitigation measures shall be implemented to reduce potential impacts associated with the Proposed Project:

MM 4.4-1 Cease Work and Implement Procedures for Unanticipated Discoveries

The following mitigation measures shall be included in final improvement plans for the Proposed Project:

- a) Should any cultural resources, such as wells, foundations, or debris, or unusual amounts of bone, stone or shell, artifacts, burned or baked soils, or charcoal be encountered during subsurface excavation or construction activities, work shall immediately be suspended within 100 feet of the discovery. CGWC and the County shall be notified, and a qualified professional archaeologist shall be retained to determine the significance of the discovery. Determination of impacts, significance, and mitigation shall be made by the archaeologist in consultation with recognized local Native American groups, if the find is prehistoric.

Prior to the commencement of Proposed Project excavations, all construction personnel shall be informed of the potential to inadvertently uncover cultural or paleontological resources and human remains and the procedures to follow subsequent to an inadvertent discovery. In addition, should excavations for site testing or data recovery become necessary, the Winnemem Wintu Tribe shall be informed in order to provide on-site tribal monitors.

- b) If human remains are uncovered during project construction, pursuant to PRC Section 5097.98 and Section 7050.5 of the California Health and Safety Code, all activities within a 100-foot radius of the find shall be halted immediately and the County's designated representative shall be notified. The County shall immediately notify the County coroner. California law recognizes the need to protect interred human remains, particularly Native American burials and items of cultural patrimony, from vandalism and inadvertent destruction. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The County shall contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the County and a qualified professional archaeologist, shall develop a plan of action to avoid or minimize significant effects to the human remains prior to resumption of ground-disturbing activities.
- c) In the unlikely event that any evidence of paleontological resources (e.g., fossils) are encountered, work shall immediately be suspended within 100 feet of the discovery, and CGWC and the County shall be notified immediately. A note shall be required on the final improvement plans to be approved by the County, that if paleontological resources are discovered on site, CGWC shall retain a qualified professional paleontologist or registered geologist to observe all grading and excavation activities throughout all phases of project construction and to salvage fossils as necessary. The paleontologist shall determine appropriate actions, in cooperation with the

County. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Excavated finds shall first be offered to a State-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to the Siskiyou County Museum for purposes of public education and interpretive displays. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the County. The paleontologist shall submit a follow-up report to the County, which shall include the period of inspection, an analysis of the fossils found, and present repository of fossils.

The following mitigation measures shall be implemented to reduce potential impacts associated with the off-site sewer improvements under Options P1 and P2:

MM S-4.4-1 Cease Work and Implement Procedures for Unanticipated Discoveries at Off-Site Sewer Improvements

The following mitigation measures shall be included in final improvement plans for the off-site sewer improvements:

- a) Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, or architectural remains be encountered during development activities, work shall be suspended and the County and City Planning Departments shall be immediately notified. At that time, the County and City will coordinate any necessary investigation of the discovery with an appropriate specialist (e.g., archaeologist or architectural historian). The project proponent shall be required to implement mitigation necessary for the protection of cultural resources.

The County and City shall consider mitigation recommendations presented by a qualified archeologist for any unanticipated discoveries. The County and CGWC shall consult and agree upon implementation of a measure or measures that the County and CGWC deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.

- b) If human remains are discovered, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified, according to Section 5097.98 of the State PRC and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the NAHC, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.
- c) Should any potentially unique paleontological resources (fossils) be encountered during development activities, work shall be suspended and the County and City Planning Department shall be immediately notified. At that time, the County will coordinate any necessary investigation of the discovery with a qualified paleontologist. The project proponent shall be required to implement mitigation

4.4 Cultural Resources

necessary for the protection of paleontological resources. The County and CGWC shall consider the mitigation recommendations of the qualified paleontologist for unanticipated discoveries. The County and CGWC shall consult and agree upon implementation of a measure or measures that the County and CGWC deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.