IV. ENVIRONMENTAL IMPACT ANALYSIS
E. CULTURAL RESOURCES

INTRODUCTION

This section of the DEIR evaluates potential impacts to cultural resources that may result from implementation of the Stonegate Vesting Tentative Subdivision Map and General Plan Amendment / Rezone ("proposed project"). The information and analysis in this section is based on the following cultural resources reports prepared for the proposed project, which are included in Appendix E of this Draft EIR:

- Far Western Anthropological Research Group, Inc. (Far Western), Archaeological Survey and Extended Phase I Report for the Stonegate Subdivision Project, Butte County, California, June 2017.
- ECORP Consulting, Inc., Cultural Resources Evaluation and Finding of Effect for the Stonegate Subdivision Project, City of Chico, Butte County, California, August 2017
- Sub Terra Consulting, Archaeology and Paleontology, Peer review of Cultural Resources Evaluation and Finding of Effect for the Stonegate Subdivision Project, City of Chico, Butte County, California, November 2017

Methodology

Far Western conducted cultural resources studies for a subdivision, general plan amendment and rezoning of the proposed project in southeast Chico, Butte County, California. These studies included an archival records search at the Northeast Information Center at Chico State University, online research of historical maps and land records, a buried site sensitivity analysis, Native American and Historical Society consultation, and an intensive pedestrian survey and partial metal detector survey. The records search included a one-quarter mile buffer around the Area of Potential Effect ("APE") and the following sources were reviewed:

- National Register of Historic Places listing
- California Office of Historic Preservation Historic Properties and Archaeological Determinations of Eligibility Data Files
- California Inventory of Historic Resources
- California Department of Transportation Historic Bridge Survey
- General Land Office Plat Maps
- 1912 Chico US Geological Survey 7.5-minute topographic map
- 1895 Chico US Geological Survey 30-minute topographic map

Six previous studies have been conducted within the APE, approximately 50% of which had been previously surveyed. Thirteen additional studies were identified within the one-quarter mile records search buffer zone, and one regional study was identified which encompasses the entire APE and records search area. A letter was also sent on July 26, 2016 to the Butte County Historical Society, requesting information on the project area. A follow-up telephone message with the same information was left on March 8, 2016. As of March 2017 no response has been received.

A letter was sent to the Native American Heritage Commission ("Commission") on July 8, 2016, requesting a review of the Sacred Lands file and a list of interested Native American tribes and individuals. On July 13, 2016, the Commission responded indicating that they have no knowledge of Native American resources within the Project site and providing a list of five individuals/organizations to contact. Letters were sent to these individuals/organizations on July 26, 2016, requesting information on the project area and soliciting comments on the proposed general plan update. Michael DeSpain from the Mechoopda Indian Tribe called on August 8, 2016, to discuss the project and requested that tribal monitors be present during future ground-disturbing activity, including coring. No other comments were received from interested Native American parties.

Following submittal of a Far Western's report that recommended further excavation at BUT-4210H and BUT-2207H and formal evaluation of BUT-4209H and BUT-1281H, Westwood and Fuerstenberg (2017) conducted additional field studies. Sub Terra Consulting, Archaeology and Paleontology provided a peer review for the City of Chico of these additional field studies.

ENVIRONMENTAL SETTING

Sacramento Valley Setting

The study parcels are situated in the northern end of the Sacramento Valley, which is the northern portion of the Great Central Valley drained by Sacramento River. The Sacramento Valley is bounded on the east by the Sierra Nevada Mountains, on the west by the Coast Ranges, the Siskiyou Ranges to the north, and the Sacramento-San Joaquin Delta to the south. The principal feature of the valley is the Sacramento River flowing southeast for about 240 kilometers (149 miles) along the valley axis until it merges with San Joaquin River to form the Delta before draining into San Francisco Bay. The Sacramento River is fed by several tributaries; the American and Feather rivers are among the largest. The level valley floor is underlain by alluvial sediments up to 17 meters (55.8 feet) thick, derived mostly from sierra streams.

Non-tidal marshlands in the Sacramento Valley formed a continuous strip along the Sacramento River to approximately the modern town of Willows. Extensive tule marshes were also found in the natural flood basins which occupied much of the lower valley between the narrow river levees and mountain-front alluvial fans. Combined, these marshlands are estimated to have once covered some 300,000 acres.

In addition to the Sacramento River, all of the major watercourses draining the Sierra Nevada and Cascade Range, including the Cosumnes, American, Yuba, and Feather rivers, were largely or partially flanked by broad gallery forests. Modern estimates suggest that as much as 364,000 acres of the Sacramento Valley was once covered by distinct riparian vegetation including valley oak woodlands and river-bank forests. The breadth of these habitats varied depending on the width of the natural levees, but is thought to have ranged from as much as five miles wide along lower portions of the Sacramento River to less than one to two miles along the smaller tributaries. While these communities would have been found west of the project area, they would have represented the most resource-rich habitats in the region and therefore exerted a strong influence on prehistoric settlement.

Riparian forests along the middle and lower reaches of these rivers often formed dense, multi-tiered canopies of primarily deciduous species. The lowest terraces were occupied by a thick forest of willows and Fremont cottonwood. On the adjacent levees and floodplains, the over-story was dominated by cottonwood (*Populus* sp.), valley oak (*Quercus lobata*), California sycamore (*Platanus racemosa*), Oregon ash (*Fraxinus latifolia*), and black walnut (*Juglans nigra*). The subcanopy commonly included white alder (*Alnus rhombifolia*), box elder (*Acer negundo*), buckeye (*Aesculus californica*), big leaf maple, and elderberry (*Sambucus nigra* subsp. *caerulea*), while the understory was composed of willows (*Salix* sp.), grape vine (*Vitus* sp.), blackberry (*Rubus ursinus*), poison oak (*Toxicodendron pubescens*), and numerous other shrubs and herbaceous species forming dense thickets.

Farther from the rivers and streams, oak woodlands formed uniform tracts up to three to five kilometers (about two to four miles) wide, consisting almost exclusively of valley oak. These forests were more common on the eastern side of the valley and often created a dense canopy. The underlying savanna was open, carpeted by native bunch and annual grasses including abundant wild rye (*Elymus triticoides*). A sparse understory in the oak woodland also included poison oak, elderberry, buckeye, and wild rose. Large expanses of the valley between the oak savanna and the lower foothills were blanketed by open grassland of the California prairie. Covering much of the deep alluvial fans and floodplains along the valley margins, the pristine Central Valley prairie formed a thick mat of annual and perennial grasses. Perennial purple needlegrass (*Stipa pulchra*) is thought to have been a dominant species, along with nodding needlegrass (*Stipa cernua*), blue wild rye (*Elymus glaucus*), pine bluegrass *(Poa secunda* ssp. *secunda*), and deergrass (*Muhlenbergia rigens)*.

Sacramento Valley Fauna

Among the most prominent mammals in the Sacramento Valley were three species of ungulate: tule elk (*Cervus elaphus*); pronghorn (*Antilocapra americana*); and black-tailed deer (*Odocoileus hemionus*). Early historical accounts suggest that elk were common in all habitats on the valley floor. Historically, the valley is estimated to have had one of the largest populations of pronghorn in North America. These animals would have been found throughout the prairie grasslands from the outer border of the riparian forests and marshes to the lower limits of the foothill woodland. Black-tailed deer would have been most common in the riparian forests and

oak woodlands, but reached highest densities in the chaparral and woodlands of the surrounding foothills. Deer, unlike other ungulates of the Sacramento Valley, tend to be more solitary, residing individually or in groups of just a few animals.

Grizzly bear (*Ursus arctos*) were once common throughout the Sacramento Valley, as were black bears. Puma (*Felis concolor*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), and coyote (*Canus latrans*) were the principal carnivores, along with badger (*Taxidea taxus*), spotted skunk (*Spilogale gracilis*), and striped skunk (*Mephitis mephitis*); all could have been found in a variety of valley habitats. A host of other smaller mammals were common in the riparian and woodland communities including beaver (*Castor canadensis*), weasel (*Mustela frenata*), mink (*Neovision vision*), and river otter (*Lutra canadensis*), as well as raccoon (*Procyon lotor*), ringtail (*Bassariscus astutus*), gray squirrel (*Sciurus griseus*), ground squirrel (*Spermophilus beecheyi*), woodrat (*Neotoma* sp.), cottontail rabbit (*Sylvilagus* spp.), and brush rabbit.

Marsh, grassland, and riparian habitats were home to resident waterfowl such as ducks (*Aythya* spp.), coots (*Fulica americana*), cormorants (*Phalacrocorax auritus*), grebes (*Aechmophorus occidentalis*), herons (*Ardeidae*), cranes (*Grus* spp.), egrets (*Ardea* spp.), and gulls (*Larus* spp.). Between about November and February, enormous flocks of waterfowl migrating along the Pacific Flyway arrived in the Sacramento Valley. These included as many as 39 different species of ducks, geese (*Anser* spp. and *Chen* spp.), brants (*Branta* spp.), and swans (*Cygnus* spp.). Although much reduced from the historic period, modern singleseason population counts of migratory waterfowl reach as many as 335,000 individuals. In the spring, these species migrate as far north as Alaska and the Bering Strait to breed.

A diverse resident avifauna was also present historically in the Sacramento Valley, composed primarily of hawks, eagles, doves (*Columbinae*), quail, flicker, woodpeckers (*Picidae*), various other accipiters (*Accipitridae*), owls (*Tytonidae* and *Strigidae*), turkey vulture (*Cathartes aura*), and numerous passerine (i.e., perching) birds.

Open channels and lentic habitats of the river system each supported different types of fishes. In the open fast-moving waters of the rivers and larger streams were found resident hardhead and sculpins. Sacramento sucker and western pike-minnow were common in both fast- and slow-water habitats, while the calmer waters of the Delta and rivers were home to splittail (*Pogonichthys macrolepidotus*), hitch (*Lavinia exilicauda*), thicktail chub (*Gila crassicauda*), Sacramento blackfish (*Orthodon microlepidotus*), Sacramento perch (*Archoplites interruptus*), and tule perch.

While all five species of Pacific west coast salmon are known from the Sacramento Valley, Chinook salmon is the principal species. Four large runs of Chinook occurred annually in the Sacramento-San Joaquin system, with fall and spring runs the most significant. It is estimated that each year, Native American fishers in the Central Valley harvested upwards of 8.5 million pounds of salmon. Other economically important anadramous fishes in the river system included white and green sturgeon (*Acipenser* spp.), Pacific lamprey (*Lampetra lethophaga*), and steelhead rainbow trout. Aquatic environments also supported pond turtle (*Clemmys*

marmorata) and populations of freshwater mussel including ridged mussel (*Gonidea angulata*) and pearl mussel (*Margaritifera* spp.).

Prehistory

The archaeological record of the Sacramento Valley is complicated by a variety of factors, some caused by geomorphic processes and others resulting from the high degree of cultural diversity that characterized much of northern California deep into prehistory. As a result of geomorphic processes in the oft-flooded Sacramento River Valley, there is a lack of appreciable material pre-dating 4300 cal BP from the lowlands, and information about the post-4300 cal BP record is relatively sparse when compared to the surrounding foothill and mountainous areas.

Paleoindian Period (13,500-10,000 cal BP)

The earliest evidence of human occupation in north-central California comes from isolated projectile points found in just a few locations adjacent to the Sacramento Valley. These distinctive artifacts are morphologically similar to Clovis points which have been traditionally dated to a relatively brief interval at the end of the Pleistocene between 13,500 and 11,500 cal BP (Fiedel 1999). A recent reconsideration of radiocarbon dates from Clovis sites has led Waters and Stafford (2007) to conclude that these projectile points may have been in use for a much shorter period—just 450 years—between 13,250 and 12,800 cal BP. They believe that the widespread distribution of Clovis points across much of North and South America was the result of technological diffusion rather than cultural migration. If so, they suggest that a pre-Clovis human population must have existed in the Americas, a contention that remains highly controversial but is beginning to be more widely accepted by archaeologists.

No fluted projectile points have yet been reported from the Sacramento Valley, but isolated Clovislike points have been recovered in the adjacent North Coast Ranges and Sierra Nevada, including finds made near Thomes Creek in Tehama County (Dillon and Murphy 1994), at Big Meadows in Plumas County (Kowta 1988), and near Loyalton in Sierra County (Kowta 1988). The most substantial collection of fluted points and other early tools in northern California, however, comes from the Borax Lake site (CA-LAK-36) located southwest of the current study area in the Clear Lake Basin (Harrington 1938, 1948). Meighan and Haynes (1970) have shown that fluted points from LAK-36 are contained in a Holocene-age debris flow and are mixed with substantially younger archaeological materials. This has made interpretation of the Borax Lake assemblage difficult, despite strong evidence for paleoindian occupation of the site (Fredrickson and White 1988; Meighan and Haynes 1970).

Lower Archaic Period (10,000-7500 cal BP)

More definitive evidence of human occupation in the Sacramento Valley region emerges after 9000 cal BP, but not within the valley itself. Most of the artifacts dating to this time are found in upland areas to the north and west and are affiliated with the *Borax Lake Pattern* (Hildebrandt 2007; Sundahl 1992). The Borax Lake Pattern spans a great deal of time (9000 to 5000 cal BP) and is defined by wide-stemmed projectile points, handstones, millingslabs, ovoid flake tools, and a variety of other utilitarian items (Clewett and Sundahl 1983; Fitzgerald and Hildebrandt

2002; Hildebrandt and Hayes 1983, 1993; Kowta et al. 2000; Sundahl 1988, 1992; Sundahl and Henn 1993). Most sites appear to represent short-term residential areas created by small family bands that used a subsistence-settlement strategy characterized by high degrees of mobility. This system, often referred to as a "forager" adaptation (*sensu* Binford 1980), focused on moving human groups from one resource patch to another as the seasons changed throughout the year. Although residential sites have not been found on the valley bottom, largely due to the high rates of alluvial deposition mentioned previously, it seems likely that these habitats were also important parts of the larger subsistence-settlement system.

Middle Archaic Period (7500-2500 cal BP)

Little is known about what Meyer and Rosenthal (2008) call the Early Middle Archaic (7500 to 5000 cal BP), as no sites dating to this interval have ever been excavated in local valley settings. Our knowledge increases significantly for the post-5000 cal BP period, here identified as the Late Middle Archaic. During this period, cultural diversity increased, and our first glimpse of the valley bottom archaeological record emerges. White (2003) collected several auger samples from the Reservation Road site (COL-247) and discovered a deeply buried component (3.0 to 3.5 meters below surface) dating to 6020 cal BP, but was not able to formally excavate it. Archaeological samples improve at about 4300 cal BP, as residential midden deposits have been excavated at COL-247 (Stratum 3; 4385 to 3575 cal BP; White 2003) and Llano Seco (BUT-233; 4300 to 2200 cal BP; Dreyer and Kowta 1984). These components include a combination of contracting-stemmed, notched, and concave-base dart points that are somewhat consistent with Middle Archaic findings in the larger region, but do not reflect clear associations with either the Martis (Bucks Lake) or Squaw Creek patterns defined for the outlying areas. Artifact assemblages from these sites are variable in size, but include a wide diversity of domestic tools and the first evidence for the use of mortars and pestles in the local area. Acorn macrofossils have also been found in both sites, clearly documenting the long-term importance of this dietary staple.

Upper Archaic Period (2500-1000 cal BP)

Although not matching up precisely with the Middle-Upper Archaic boundary defined by Rosenthal et al. (2007), the Sacramento Valley sequence shows a major break in the archaeological record at about 3000 cal BP. The Whiskeytown Pattern of the Upper Sacramento is characterized by a wide range of corner- and side-notched dart points, handstones, millingslabs, notched pebble net weights, and a limited number of mortars and pestles (see also the Deadman and Kingsley complexes in Tehama County; Greenway 1982; Johnson 1984).

White's (2003) discovery of a component dating between 3222 and 2750 cal BP at COL-247 seems to represent a permanent village with affinities to those associated with Windmiller Pattern sites in the Delta and Berkeley Pattern (Houx Aspect) settlements in the Clear Lake Basin. Major residential components have also been identified at BUT-233 (Dreyer and Kowta 1984), the Cana Highway site (BUT-288; Deal 1987), and the Wurlitzer site (BUT-294; Dreyer and Kowta 1984), although their relationships to other cultural complexes have not been

proposed. Artifact assemblages from these sites reflect a greater reliance on mortar-pestle technology, have a wide range of cooking features, show more intensive use of bone tools, and where analyzed, tend to have floral and faunal remains reflecting multiple seasons of occupation. Combined, these attributes appear to represent the development of a fundamentally new collector adaptation (*sensu* Binford 1980) where centralized villages were supported by logistical forays to outlying areas, exchange relationships with neighboring groups, and greater dependence on long-term storage.

Emergent Period (Post-1000 cal BP)

Many significant changes took place throughout northern California by the Emergent Period, increasing the cultural complexity and diversity of the region. The Augustine pattern developed along the Colusa Reach (White 2003) and down into the Sacramento-San Joaquin Delta (Rosenthal et al. 2007). The Augustine reflects the establishment of large riverine villages supported by intensified subsistence economies with increasing dependencies on fish. Bow and arrow technology appears for the first time (represented by Gunther Barbed and later Desert Side-notched projectile points), as do a variety of fishing implements including composite harpoons and bone fishhooks. Large numbers of hopper mortars and pestles reflect the intensive use of plant foods, while the artistic and recreational parts of culture are revealed through items like incised bone and stone pendants, abalone shell pendants, bone gaming pieces, and a variety of shell beads. Clam disk beads became popular after 500 cal BP, and were commonly used as money throughout the region.

The large village sites of the Augustine Pattern contain the remains of house structures, cooking features, and formal cemetery areas. Dark charcoal-rich midden deposits are also quite common and include freshwater shellfish, butchered mammal bone, and an abundance of fish bone (including salmon in northern latitudes), as well as the charred remains of acorns, small seeds, and a variety of other plant foods. These findings clearly show that the mobile settlement systems of the Whiskeytown and Mendocino patterns along the northern and western reaches of the Sacramento Valley were a thing of the past, as the local populations settled into more permanent villages made possible by the large-scale storage of fish and acorns, and the inter-regional exchange of other important commodities.

Ethnography

Following is a brief overview of the lifeways of the Konkow. For a thorough, recent study of the Konkow Peoples the reader is referred to McCarthy (2004), which includes detailed ethnographic, ethnohistoric, and historical information. McCarthy's report includes the Mechoopda, their interactions with John Bidwell, and the effects of the Euro-American community on the environment and lifeways of the Native Americans.

The project parcel is within the traditional range of the Northwestern Maidu, though the dividing lines between the Northeastern Maidu to the east, Nisenan (or Southern Maidu) to the south, and Yana to the north are not well-established for the protohistoric period. The name Konkow, an anglicization of the Maidu word kóyo·mkàwi for "meadowland," has more commonly been

assigned to groups living in this area. However, Konkow (a.k.a. Cou-Cou, Cancow, KanKau) may actually refer to the more specific tribelet of Northwestern Maidu living in the Konkow Valley near Oroville. This term has since been applied to all Northwestern Maidu groups. Maidu living in the region today generally self-recognize as Konkow, and this term is retained below.

Konkow, along with Nisenan and Maidu (or Northeastern Maidu) is one of three major subgroups of the Maiduan language family, which itself is part of the Penutian stock. Divisions of Konkow are recognized, including Foothill and Valley (or Mechoopda), which at the time of contact could be further divided into regional dialects. The 645-acre parcel falls within Valley Konkow territory.

Ethnographic information indicates that at the time of contact, Konkow were organized into village communities of approximately 150–400 individuals. The village community was an autonomous unit consisting of several nearby and self-sufficient villages, each of which may have housed 40 or more people. Villages were usually located on higher ridges or knolls overlooking more permanent creeks and rivers, particularly the North, Middle, and South Forks of the Feather and Sacramento rivers. Such locations provided views of the surrounding landscape and gave protection from high water during floods. Rathbun identified 14 such village communities in the Butte County area, one of which is Chico or *Michupta*. The Mechoopda Tribe is active today.

Village communities owned fixed fishing, hunting, and gathering territories, the boundaries of which were actively protected against poachers and intruders. A large semi-subterranean earth-covered lodge, or kùmi, served as an assembly chamber in the central, though not necessarily the most populous, village. Often, the headman in the village community would live in and keep up the kùmi. This person was selected based on his ability, generosity, maturity, and wealth. While they could influence or encourage others to behave in particular ways (i.e., authority), headmen did not have any true power over other villages or people.

The traditional Konkow subsistence economy was based on a hunting and gathering way of life. Small seeds and acorns formed the staple of the diet, though fishing and hunting provided sustenance as well. Mobility, both logistical and residential, was an important facet of the subsistence-settlement pattern to exploit locally abundant and spatially variable food resources. Hunting and gathering, however, does not indicate a passive harvesting of available resources from the landscape. Grasslands and other environments were carefully managed and manipulated by Konkow and other Native Californians through clearing, pruning, sowing seeds, and especially burning.

The seasonal round was organized around various activities. In spring, families would collect various small seeds and leafy greens as they would ripen, especially Indian rice grass, in the valley bottom. Seeds may have been collected on a logistical basis, with groups of women making daily forays into the surrounding area to harvest seeds with seed beaters and burden baskets. Seeds were likely parched and ground into a flour prior to consumption. Men would hunt and fish to supplement the gathered food resources. In most years, spring salmon runs

would have been an important source of food. During this time, families resided in valley bottom base camps in more substantial and formal semi-subterranean houses.

In the summer, men would venture into the nearby Sierra foothills and mountains to fish and hunt deer, which were brought back to the base camp. Occasionally, the entire village would relocate to these areas to inhabit summer camps. During occupation, families would live in open (i.e., roofless) and more ephemeral brush enclosures. While the men would fish and hunt, women would gather various seeds, roots, and other plant products. Families might stay in these higher-elevation base camps through early fall to gather pine nuts, manzanita berries, acorns, and buckeye. The latter two resources required extensive processing (i.e., leaching) to remove various toxins (tannic and prussic acids) and were typically boiled in baskets using heated stones. Other resources collected during this time might include various insects and berries. Many of these resources would be over-harvested and stored in anticipation of winter.

If they had summered in the Sierran foothills, groups would move back to the valley-bottom base camp in winter. People would live off of stored goods harvested in the summer and fall, as well as winter runs of salmon and migratory waterfowl. Because fewer foods are available in winter, wintertime activities may have included production of various material goods, such as basketry items, clothing, cordage, stone tools, and decorative ornaments.

While much time was surely spent foraging and producing the material goods used in those activities (e.g., baskets, grinding stones, bows, projectile points, nets), the hunting and gathering lifestyle of the Konkow undoubtedly afforded much time for socializing—talking, storytelling, dancing, gambling, visiting family and friends, etc.—trading goods and information, and performing rituals. Konkow mythology deals mainly with animals, such as hummingbird, lizard, dog, rattlesnake, and coyote, and their interactions within and with the natural landscape and the supernatural. These myths served to embody Konkow values and world views, and were told to children by elders on various occasions. Singing, dancing, and feasting marked different events, both happy and sad, including male and female initiation into adulthood, death, and the passing of various seasons. Associated rituals observed at these events often served an important role in maintaining balance in both the natural and spiritual worlds. Singing, dancing, and gambling also served as a form of pleasure and amusement during more normal or every-day types of activities. Although these activities would have been of much importance in prehistoric times, as they continue to be among present-day Konkow, they are, unfortunately, less visible in the archaeological record.

Ethnohistoric Context

The first contacts with Euro-Americans probably occurred in the early part of the nineteenth century. Gabriel Moraga seems to have been one of the earliest explorers moving through this section of the Sacramento Valley. Moraga was looking for mission sites and apparently met with Maidu near the Sutter Buttes. Other early explorers included Padre Arbella in 1811 and Captain Lewis Arguello in 1820. These early contacts seem to have had only minimal effects on Native lifeways.

Although no settlements were established by Spanish explorers, beginning in 1824, the Mexican regime divided California lands into large parcels referred to as ranchos. Land grants were awarded in the Central Valley, including the "Boga," or Butte grant, covering acreage within present-day Sutter and Butte counties and "New Helvetia" John A. Sutter's 1839 grant of lands in Sutter, Sacramento, and Yuba counties. The Boga was a 22,185-acre grant north of Sutter Buttes.

The pace of Euro-American contact increased from 1820 to 1848. Various trappers, the occasional homesteader, and different exploration teams moved through the valley, interacting with Maidu inhabitants, some in negative and racist ways and others indifferently. More drastic, diseases were introduced and quickly spread among the Maidu in this period. Several epidemics, including smallpox and malaria, were responsible for many deaths among the Konkow, which had devastating and lasting effects on social conditions.

Due to the 1848 discovery of Sierran gold, New Helvitia developed into the City of Sacramento, which became the hub of northern California. By 1849, traditional Maidu lands were overrun with gold miners. Explorers, miners, and settlers brought livestock that changed the ecology of native lands, reducing food resources, and eventually becoming targets for people whose food was becoming scarce or extinct. Konkow and Nisenan populations were nearly halved between 1846 and 1850. In the years that tens of thousands of miners and accompanying settlers flocked to the state, they invaded Konkow territory and created tensions, often violent, between the two ethnic groups. Killings are reported on both sides, though Euro-Americans had greater access to guns and were backed by lawmakers (who were also white) and were responsible for greater numbers of homicides. Native people were often killed indiscriminately and villages burned when oxen or other livestock went missing. In many cases, Native people may not even have been involved, and the disappearance of livestock presented a convenient excuse to help exterminate and remove the Maidu from their land. Moreover, grazing, farming, and the spread of introduced species caused great ecological change, restructuring the availability of hunted and gathered food sources and placing further stress on Maidu populations.

Despite strained relations, Indians often worked for the miners and ranchers. John Bidwell was one of those who profited from Indian labor for both mining and ranching endeavors. There are different views about John Bidwell's treatment of local Indians. The Maidu village of "Mechoopda" may have existed prior to Bidwell's Rancho or formed serving Bidwell's operations, but a substantial settlement existed near the Rancho Chico headquarters beginning in 1849. The Bidwells deeded an allotment of Ranch lands to the Mechoopda Rancheria holdings. It is said by some that he was a fair man and a protector of his Indians, but others considered him harsh.

The state attempted to settle conflicts through the establishment of a reservation, and in 1854 a Konkow Reservation was established at Nome Lackee. However, in 1863 its residents were forced to abandon the reservation and march to the Round Valley Reservation in Mendocino County. Of the 461 people leaving Nome Lackee, only 277 arrived in Round Valley, many having been killed or dying along the way. As well, poor conditions in Round Valley prompted many to return to Butte County and the traditional Konkow homeland, where they worked as

wage laborers on mines and ranches, along with the small number of Konkow who had never left.

By now their traditional subsistence and settlement activities were no longer possible, and Konkow were forced to assimilate into the dominant White culture. As a result, a great loss of language and traditional culture ensued. However, this process was not complete, and many traditional crafts, dances, and myths continue to be passed down through the generations, in one form or another. As well, there have been recent attempts to revive the language and other elements of traditional culture.

History of Central Butte County

The history of Butte County centers around the diversified themes of mining, cattle ranching, agriculture, and the timber industry, interspersed with continued growth in population, cities, and transportation. However, the history of central Butte County is largely centered on cattle ranching. Butte County was organized in 1850 as one of California's original counties, including within its boundaries areas of what later became Lassen, Plumas, Tehama, Colusa, and Sutter counties. It received its name from the Sutter Buttes, now located in Sutter County. Hamilton was the original county seat until 1853, when it was moved to Bidwell's Bar, before finally being transferred to Oroville in 1856.

The beginning of ranching in Butte County can be traced to 1845, when Samuel Neal and David Dutton settled on the 22,000-acre Esquon Grant, seven miles south of Chico near Durham, bringing in cattle acquired from John Sutter. There were eight other early land grants in Butte County, including John Bidwell's Rancho del Arroyo Chico to the north, but Neal is generally credited with establishing the cattle industry in the county.

Shortly after the discovery of gold at Coloma in 1848, Bidwell, Neal and others left their ranchos to search for gold, making discoveries at various places along the Feather River, including Bidwell's Bar, Monterey Bar, and Adamstown, near Oroville. Gold hunters swarmed to the area, and by the end of 1850 there were 214 mining camps in Butte County. Travel increased through the area with the opening of the Beckwourth Trail over Donner Summit (later the Oroville-Quincy Wagon Road incorporated into State Route 70) through Bidwell Bar to Marysville in 1851. Butte County was one of the chief gold-producing sections of the state, with conservative estimates of production by the turn of the twentieth century exceeding $200 million.

With the rush for gold came a need for supplies for the growing towns and camps in the region. Sam Neal returned to his ranch in 1849 with $110,000 he earned from gold mining, and stocked it with cattle and horses. The Esquon Rancho was confirmed to Neal in 1852, and a patent was issued in 1860 for the 22,000-acre ranch. In 1852, he built a sawmill at the head of Little Butte Creek, leading the way in the developing timber industry in the county. Thirteen other mills were in operation by the end of 1852.

Also in 1849, John Bidwell closed his gold diggings and turned to agriculture and merchandise to supply the swelling population of the state (see White 2002 for more detail). He acquired the

Rancho del Arroyo Chico, a 22,214.47 acre land grant in two purchases in 1849 and 1851. Bidwell's Rancho Chico headquarters had included multiple structures and ranch operations, some just south of the proposed project area. Between 1849 and 1892, Bidwell was active in California State politics, and served one term in Congress from 1865 to 1867. He is considered a builder of the California commonwealth.

The cattle business in Butte County thrived owing to the demand for meat produced by the mining and lumbering communities, and the railroads rushed to provide freight service for these expanding industries. The first train arrived in the region at Oroville in 1864 on the Northern California Railroad from Marysville. The town of Chico, which had been growing since 1849 on Big Chico Creek on Bidwell's Rancho, was founded in 1860 and became one of the largest settlements in the area, surpassing Oroville by 1870. In that year, the Central Pacific celebrated the opening of its line to Chico (the California and Oregon Railroad). The California and Oregon Railroad stopped at Chico to take advantage of the cattle, agricultural, and timber industries there. The towns of Gridley, Biggs, Nelson, and Durham sprung up along the railroad. Also in 1870 the California Pacific Railroad was completed to Marysville, where a connection was made with the California Northern to Oroville. The Southern Pacific Railroad ("SPRR") acquired the California & Oregon Railroad in 1989. The SPRR now runs through the west side of Butte County, through Chico, with a branch line from Marysville to Oroville, while the Western Pacific runs through the Feather River Canyon on the east side. The Sacramento Northern runs southeast from Chico to Oroville Junction.

While the cattle and timber businesses boomed in Butte County, agriculture continued to hold promise. By 1857, Bidwell had 350 acres at Rancho Chico under cultivation for tree and row crops. By 1867, there were 240,664 acres enclosed, and by 1915, more than 275,000 acres were available for agriculture, encompassing the eastern half of the county closest to the Sacramento River. The central part of the county, from Neal's land east to the foothills, was heavily used for cattle and sheep raising, while the timber industry thrived in the northern and western part of the county.

Increased attention to roads and bridges followed as a result of mining, agriculture, increased population and stable settlements. By 1895, Butte County had 100 miles of graveled road and 600 miles of graded roads. One of these roads, existing by 1886 was a road from Oroville to Chico, later called the Oroville-Chico Highway.

In 1860, Bidwell founded the town of Chico on his ranch and later donated land for a public school, and a large area for the Northern Branch State Normal School, started in 1887, which is today California State University, Chico. Bidwell died in Chico in 1900, and with his wife's death in 1918 the proposed site for the Natural History Museum was deeded from the Bidwell estate to the state along with the Bidwell Mansion and some lands.

Previously Recorded Resources

CA-BUT-1281H

Site BUT-1281H is a "rock wall" or stone fence. Just one segment was originally recorded, but noted that it extended to the east. The segment was re-recorded by Far Western and designated as BUT-1281H Segment A, and the resource extent expand. The feature also intersects with the stone fence recorded as BUT-1281H Segment B, and a final section as BUT-1281H Segment C. The wall was initially recommended ineligible for the National Register but no formal determination was made (Jensen and Associates 1992). It is worth noting that "rock walls" (more accurately described as fences) are called out in the City of Chico's General Plan as features of local significance. As part of the initial recordation, Jensen and Associates (1992) recommended the resource ineligible for the National Register under all criteria. However, those authors provided no evidence to support their recommendation that the feature is ineligible. There is no indication in their report that they conducted any subsurface testing, metal detection, archival research, or oral history investigations.

Other researchers provide the following information. Swinlinger and Bayham (1988:3) report that "the stone fence that still stands on Bruce and Humboldt Roads was built [for] Mr. Bruce in the early 1870s." They cite a "letter on file at the California State University, Chico Archives" as saying that the fences built on the Bruce Ranch were built by a Charles Royls. They also note that "a portion of this stone fence near the intersection of Bruce and Humboldt Roads [outside the current project APE] was set back 20 feet by the City of Chico to widen Bruce Road" in 1988. Swilinger and Bayham conclude that "for both reasons of historic significance and their value as an intangible asset of the landscape, stone fences should be preserved when possible". They recommend avoiding impacts to the wall, possibly by incorporating it into development plans. In a later study, Harrington reports that an in-situ part of the "wall" (BUT-1071H) was to be moved and rebuilt "to match the alignment of the previously relocated wall." She recommends the resource as ineligible due to lack of integrity—though presumably she evaluated only that portion in her study area, which was to the north of, and outside, the current APE.

Westwood and Fuerstenberg (2017) did not conduct any additional fieldwork, but evaluated the stone fence for eligibility to the California and National Registers. They concluded that the fence was not associated with important events in local, state, or national history, was not the work of a master nor did it possess high artistic value, and did not provide important information regarding local history. The fence was, however, associated with three well-known local land owners (Bruce, Entler, and Lucas) and therefore qualifies for listing under Criterion 2/B (association with people important to the past). They concluded, therefore, that the resource was eligible for listing on the California and National Registers. The project will require cutting the fence segments in certain locations to accommodate access to the new development, but the majority of the fence lines will be preserved and incorporated into the project design. Westwood and Fuerstenberg (2017:42) concluded that these changes would not alter character-

defining features of the resource and therefore would not constitute an adverse effect and no mitigation would be required.

CA-BUT-2207H (P-04-002207)

Site BUT-2207H is the partial remains of a historic-era building foundation. Jensen and Associates suggest that this foundation may have been a barn. They concluded that the site was not associated with events which have made a significant contribution to broad patterns of history (California Register Criterion 1), nor was it associated with significant persons (Criterion 2). They also found that the foundation did not embody characteristics of a type, period, or method of manufacture (Criterion 3). The apparent lack of associated artifacts, according to Jensen and Associates, limited the data potential of the foundation, making it ineligible under Criterion 3.

However, as with BUT-1281H, there is no indication that those authors carried out any kind of formal evaluation (metal detector survey, surface scrapes, archival research) to support their recommendations; instead it appears that they based their conclusions on surface observations only. Moreover, there is no evidence to suggest that a formal determination of eligibility has ever been made for this site. Far Western found that there is insufficient integrity for BUT-2207H to be considered eligible under Criteria 1, 2, or 3, Far Western recommended that it had not been properly evaluated under Criterion 4.

Subsequently, Westwood and Fuerstenberg (2017) carried out subsurface testing at the foundation of a former historic-era structure on July 20–21, 2017. Fieldwork included metal detection, surface survey and the excavation of eight shovel test probes (STPs) around the existing concrete pads to depths between 15 and 28 centimeters below surface (cmbs). This excavation resulted in the recovery of five wire nails, four masonry mortar fragments, and two brick fragments. Based on these findings they concluded that the site was an agricultural building occupied during the twentieth century.

Based on historical mapping, Westwood and Fuerstenberg (2017) concluded that it is possible that the site is associated with Bruce or Lucas, but this association is insufficient under Criterion 2/B. Similarly, there is no evidence that the site is associated with events important to history and the foundation lacks extant architecture and therefore cannot be eligible under Criterion 3/C. Finally, insufficient archaeological materials were recovered during excavation to conclude that the site has any research potential and it is not eligible under Criterion 4/D. Overall, the site was recommended as ineligible for listing on the California and National Registers and no further action was recommended.

Newly Identified Resources

Two additional and previously unrecorded cultural resources were documented: the historic-era Crouch Ditch and a series of mine tailings along a shallow, seasonal drainage.

Crouch Ditch (CA-BUT-4209H)

This ditch is depicted on USGS topographic maps as early as 1912. The ditch segment within the APE has been bisected by the Butte Creek Diversion Channel, and therefore has been recorded as two segments: Segment A, which is west of the channel, and Segment B, to the east. Segment A also includes the remains of what appears to be a dilapidated wooden footbridge or possibly a small check dam. Approximately 80 feet of the central portion of Segment B has been leveled by heavy equipment.

The Crouch Ditch is described as "a[n] historic irrigation canal" that "flows periodically and provides habitat to wild animals. It diverges from Butte Creek at a point roughly 2.5–3.0 miles east of the project area and continues west and south for several miles to where it merges into a series of sloughs, canals, and drains on the east side of the Sacramento River. Modern aerial photographs suggest that the segment east of the Butte Creek Diversion is abandoned.

Only that part of the ditch within the project parcels was recorded for this study, consisting of two segments that total 1,342 feet. The segments are separated by the Butte Creek Diversion Channel. This portion of the ditch is a shallow, earthen feature. The only associated feature is a collapsed wooden structure interpreted as a small footbridge or check dam, with 8-x-8 inch beams and 10-x-2-inch boards. One of the beams still straddles the ditch; the rest of the feature has fallen into the ditch. Many pieces are burnt and broken. Segment A runs between the Diversion Channel and Skyway Road, where it turns to parallel the road as a drainage ditch. Segment B, east of the Diversion Channel, appears to end just before it reaches Skyway Road.

Historical Background

While the entire Crouch Ditch has not been evaluated for eligibility to the National Register or California Register, the portion in our study area does not appear to qualify for either register at the state or national level. However, the ditch could be eligible at the local and/or regional level for its association with the development of agriculture in Butte County (Criteria A/1), and for its association with the Crouch family, early pioneers in the county (Criteria B/2). It does not include physical elements that might embody distinctive artistic or engineering values (Criteria C/3); nor is the ditch likely to yield important information on local, regional, state, or national history (Criteria D/4), beyond its recordation. As to integrity, those segments of the ditch within the town of Chico have been channelized or otherwise altered, while those to the east, including the project area, appear to retain much of their original character and alignment.

In sum, the Crouch Ditch is recommended as eligible to the California Register under Criteria 1 and 2, at the local level of significance. However, any impacts to the sections within the project site have been mitigated through the recordation and archival research performed.

Westwood and Fuerstenberg (2017) conducted further archival research and determined that the ditch was constructed between 1895 and 1912, prior to its association with Crouch, who took ownership at a later date. While archival research suggests that it is associated with agriculture in Butte County, there is nothing to suggest that it was the earliest ditch or played an important role in the history of the county. Since the original builders of the ditch could not be

determined and since Crouch was not important to local history, the site is also not significant under Criterion 2/B. The ditch is typical of irrigation ditches and does not embody characteristics of a type, period, or method of manufacture and is not eligible under Criterion 3/C. Finally, there is no information potential that may be gained from further study of the ditch and it is not eligible under Criterion 4/D. The site is recommended as not eligible for listing on the California and National Registers and no further management actions are recommended.

CA-BUT-4201H- Mine Tailings, Possible Privy, and Associated Artifacts

This newly recorded historic-era resource, is a series of at least 18 discrete features. The features consist of piles of water-worn cobbles averaging roughly four to five feet in diameter and 18 inches tall; many other piles that lie side-by-side and form a nearly contiguous alignment along the bed of a shallow seasonal drainage; a partially in-filled pit, a concentration of late nineteenth or early twentieth-century domestic artifacts; and several low silt piles on a low terrace slightly above and parallel to the seasonal drainage. Artifacts found directly on the piles included a large, smashed bucket, two “church-key” opened beverage cans, and two bent sections of galvanized metal.

The area is part of the Butte Creek Watershed historic-era gold mining region, which drew local and international immigrants, starting in about 1850. The region was mined heavily between the 1850s and 1950s. A review of historic-era maps, histories, and records search results provided no direct information on who created the tailings features, or when. Online Land Patent Records maintained by the Bureau of Land Management list a Benjamin Franklin Potter as having filed a Homestead Entry on January 27, 1880, for 160 acres in Section 32, “Lot/Tract1” and “lot/Tract 2”, which correspond to the location of the recoded tailings.

Because of the likelihood of additional artifacts and the possibility of structural remains, the presence of numerous discrete features reflecting small placer mining landscape and its association with a known household, the site may be eligible for the California and/or the National Register; however, it could not be formally evaluated at the survey level. For the sake of the project the site will be assumed eligible under the California Register under Criterion 4 and a data recovery plan will be developed and implemented prior to construction to realize the data potential of the site.

LE-1P- Prehistoric Isolate

A single isolated flake of dark grey cryptocrystalline silicate material was also recorded during the pedestrian survey. No additional evidence of prehistoric occupation was observed despite more intensive survey and removal of ground cover in the immediate area of the isolate. Isolates are, by definition, ineligible for listing on the National and California Registers. No further management of this isolate is recommended.

Westwood and Fuerstenberg carried out fieldwork on July 21, 2017. This included metal detection and subsurface archaeological testing. Five STPs were excavated based on visual inspection of the surface and metal detection results. The five units ranged in depth from 10–27 cmbs. Excavation resulted in the recovery of a modern beer can, several nail fragments, pieces

of aqua, clear, and brown glass, and various ceramic and metal artifact fragments. Westwood and Fuerstenberg (2017) concluded that the 70 artifacts recovered represent a mixture of domestic and industrial activities with some evidence of trash burning and perhaps more recent looting or prospecting. They concluded that the placer tailings were consistent with shallow placer mining using hand-screening techniques—this type of mining was common throughout the second half of the nineteenth century in California.

Although the property was owned by Potter, Bruce, and Lucas during the period of mining, there is no evidence that they, themselves were the miners. As a result, the site is not associated with people important to the past (Criterion 2/B). Similarly, there is no evidence that the site was associated with gold discovery or even fruitful mining and therefore is not associated with events important to the past (Criterion 1/A). Lacking architecture, the site does not embody characteristics of a type, period, or method of manufacture and is not eligible under Criterion 3/C. Finally, fieldwork in 2017 did not yield sufficient artifacts to answer regional research questions associated with regional history and the site lacks eligibility under Criterion 4/D. Taken together, the site is recommended not eligible for listing on the California and National Registers and no further management actions are recommended.

REGULATORY SETTING

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 ("NHPA"), as amended, established the National Register of Historic Places ("NRHP"), which contains an inventory of the nation's significant prehistoric and historic properties. A stated by 36 CFR 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets at least one of the following criteria:

- Association with significant events in history, or broad patterns of events.
- Association with significant people in the past.
- Embodiment of distinctive characteristics of an architectural type, period, or method of construction; or work of a master or possesses high artistic value; or representation of a significant and distinguishable entity whose components may lack individual distinction.
- Has yielded, or may yield, information important in history or prehistory.

Properties including religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are typically excluded from consideration for listing in the NRHP; however, they can be considered if they meet special requirements in addition to meeting the criteria listed above.

State

California Register of Historic Resources

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources ("CRHR"). The State Historic Preservation Office ("SHPO") maintains the CRHR. Properties that are listed on the NRHP are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Tribal Consultation

SB-18 Tribal Consultation

SB-18 Tribal Consultation; Government Code Section 65352.3 ("Senate Bill [SB] 18") requires local governments to consult with California Native American Tribes identified by the California Native American Heritage Commission ("NAHC") regarding proposed local land use planning

decisions and prior to the adoption or amendment of a general plan or specific plan. The purpose of this consultation is to preserve or mitigate impacts to cultural places.

AB-52 Tribal Cultural Resources

In September of 2014, the California Legislature passed Assembly Bill ("AB") 52, which added provisions to the Public Resources Code concerning the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze a project's impacts on "tribal cultural resources," separately from archaeological resources (PRC Section 21074; 21083.09). The Bill defines "tribal cultural resources" in a new section of the PRC, Section 21074. AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3). Finally, AB 52 requires the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09). AB 52's provisions apply to projects that have a notice of preparation filed on or after July 1, 2015.

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human grave. In the unlikely event that human graves are encountered, work should halt in the vicinity and the County Coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification.

According to Section 15064.5 of the CEQA Guidelines, all human remains are a significant resource. Section 15064.5 of the CEQA Guidelines also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are spelled out under Public Resources Code Section 5097.

Local

City of Chico Municipal Code

Historic Preservation Ordinance

A historic preservation ordinance of the Chico Municipal Code specifically affords protection for properties listed on the City's Historic Resources Inventory and provides a mechanism to add historic properties to the Inventory through Landmark Overlay zoning districts. The ordinance also provides development incentives to owners of designated historic property and establishes a number of exempt activities such as ordinary maintenance and repair. Proposals to significantly alter or demolish structures listed on the City's Historic Resources Inventory are reviewed by the City's five-member Architectural Review and Historic Preservation Board. The Board also reviews nominations to the City's Inventory and forwards recommendations to the City Council for a final determination of listing.

City of Chico General Plan

Policy CRHP-1.1 (Historic Preservation Program) – Maintain a comprehensive Historic Preservation Program that includes policies and regulations which protect and preserve the archaeological, historical, and other cultural resources of Chico.

Action CRHP-1.1.6 (Best Management Practices) – Update the City's Best Management Practices Manual to include environmental review protocol, communication with appropriate agencies, and standard conditions of approval for discretionary projects that protect cultural and paleontological resources.

Action CRHP-1.1.7 (Public Resources) – Maintain all City-owned historic and cultural resources in a manner that is consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

Action CRHP-1.1.8 (Records Search) – Continue to consult and require record searches for discretionary projects with the Northeast Center of the California Historical Resources Information System ("CHRIS") located at CSU Chico.

Action CRHP-1.1.9 (Architectural Historian Consultation) – Use the California Historical Resources Information System (CHRIS) Consultant's List to identify qualified architectural historians for project consultation. Require consultants for City and private development projects to meet the minimum Professional Qualification Standards adopted by the Secretary of the Interior's Standards and Guidelines for Archaeology and Historical Preservation.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, a project would have a significant impact on cultural resources if the project would:

(a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

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

(d) Disturb any human remains, including those interred outside of formal cemeteries.

For purposes of CEQA, to determine whether cultural resources could be significantly affected, the significance of the resource itself must first be determined. Section 15065 of the CEQA Guidelines mandates a finding of significance if a project would eliminate important examples of major periods of California history or prehistory.

In addition, pursuant to Section 15064.5 of the CEQA Guidelines, a project could have a significant effect on the environment if it "may cause a substantial adverse change in the significance of an historical resource." A "substantial adverse change" means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is impaired." Material impairment means altering "…in an adverse manner those characteristics of an historical resource that convey its historical significance and its eligibility for inclusion in the California Register of Historical Resources." Impacts to those cultural resources not determined to be significant according to the significance criteria described above are not considered significant for the purposes of CEQA.

Historical Architectural Resources

Pursuant to Section 15064.5 of the CEQA Guidelines, a historical resource (including both built environment and prehistoric archaeological resources) is presumed significant if the structure is listed on the CRHR or has been determined to be eligible for listing by the State Historical Resources Commission. An historical resource may also be considered significant if the lead agency determines, based on substantial evidence, that the resource meets the criteria for inclusion in the CRHR. The criteria are as follows:

1. The resources is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. The resource is associated with lives of persons important in our past;

3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological Resources

Pursuant to Section 15064.5 of the CEQA Guidelines, archaeological resources, not otherwise determined to be historical resources, may be significant if they are unique. Pursuant to Public Resources Code Section 21083.2, a unique archaeological resource is defined 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 of the following criteria:

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

A non-unique archaeological resource means an archaeological artifact, object, or site that does not meet the above criteria. Non-unique archaeological resources receive no further consideration under CEQA.

Human Remains

According to Section 15064.5 of the CEQA Guidelines, all human remains are a significant resource. Section 15064.5 of the CEQA Guidelines also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are spelled out under Public Resources Code Section 5097.

Paleontological Resources

According to Appendix G of the CEQA Guidelines, a project could have a significant effect if it would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Cultural Resources Impacts Not Further Analyzed

The following issues were addressed in the Initial Study (see Appendix A) and Section IV.A of the Draft EIR, and were determined to result in a less-than-significant impact and not warrant further analysis:

- Disturb any human remains, including those interred outside of formal cemeteries.

Project Impacts and Mitigation Measures

Impact CULT-1: Historical Resources

Two historic-era resources, BUT-1281H and BUT-2207H, were identified within the APE during the Records Search. Site BUT-2207H, a historic-era building foundation initially recorded in February 1992, was recommended at that time as ineligible for the National Register, however the recommendation was based on surface observations only. Based on historical mapping, Westwood and Fuerstenberg (2017) concluded that it is possible that the site is associated with Bruce or Lucas, but this association is insufficient under Criterion 2/B. Similarly, there is no evidence that the site is associated with events important to history and the foundation lacks extant architecture and therefore cannot be eligible under Criterion 3/C. Finally, insufficient archaeological materials were recovered during excavation to conclude that the site has any research potential and it is not eligible under Criterion 4/D. Overall, the site was recommended as ineligible for listing on the California and National Registers and no further action was recommended.

Similarly, BUT-1281H, initially recorded as a small segment of historic-era rock wall which was expanded to include two other connected segments, was also recommended as ineligible for the National Register, but with no supporting data. An earlier study by Swinglinger and Bayham (1988:3) reported that "the stone fence that still stands on Bruce and Humboldt Roads was built [for] Mr. Bruce in the early 1870s" and concluded "for both reasons of historic significance and their value as an intangible asset of the landscape, stone fences should be preserved when possible" (1988:5). The current project plan include cutting the fence to create two entrances to the property but maintaining the majority of the rock fence line as part of final design and therefore it would be preserved the resource to the maximum extent feasible. A less than significant impact regarding impacts to resource BUT-2207H would result.

An additional two historic resources and one isolate were identified through pedestrian survey; Crouch Ditch and Mine Tailings. Recordation and archival research performed for the project have mitigated any impacts to the sections of the ditch within the project parcel and no further action would be required. Furthermore, Westwood and Fuerstenberg (2017) conducted further archival research and determined that the ditch was constructed between 1895 and 1912, prior to its association with Crouch, who took ownership at a later date. While archival research suggests that it is associated with agriculture in Butte County, there is nothing to suggest that it was the earliest ditch or played an important role in the history of the county. Since the original builders of the ditch could not be determined and since Crouch was not important to local history, the site is also not significant under Criterion 2/B. The ditch is typical of irrigation ditches and does not embody characteristics of a type, period, or method of manufacture and is not eligible under Criterion 3/C. Finally, there is no information potential that may be gained from further study of the ditch and it is not eligible under Criterion 4/D. The site is recommended as not eligible for listing on the California and National Registers and no further management actions are recommended. A less than significant impact regarding the Crouch Ditch resource would occur.

The second newly recorded historic-era resource, CA-BUT-4209H, contains a relatively dense artifact locus, and at least 18 other features. Although the property was owned by Potter, Bruce, and Lucas during the period of mining, there is no evidence that they, themselves were the miners. As a result, the site is not associated with people important to the past (Criterion 2/B). Similarly, there is no evidence that the site was associated with gold discovery or even fruitful mining and therefore is not associated with events important to the past (Criterion 1/A). Lacking architecture, the site does not embody characteristics of a type, period, or method of manufacture and is not eligible under Criterion 3/C. Finally, fieldwork in 2017 did not yield sufficient artifacts to answer regional research questions associated with regional history and the site lacks eligibility under Criterion 4/D. Taken together, the site is recommended not eligible for listing on the California and National Registers and no further management actions are recommended. A ***less than significant*** impact regarding CA-BUT-4209H would occur.

Impact CULT-2: Archaeological and Paleontological Resources

The cultural resources studies conducted at the site resulted in the recovery by Far Western of 25 artifacts, consisting of a horseshoe nail, a child's doll fragment, a tablespoon, and several pieces of tableware vessels suggest a family occupation; the cut nails and window glass. Westwood and Fuerstenberg recovered 70 artifacts including a modern beer can, several nail fragments, pieces of aqua, clear, and brown glass, and various ceramic and metal artifact fragments. Westwood and Fuerstenberg (2017) concluded that the 70 artifacts recovered represent a mixture of domestic and industrial activities with some evidence of trash burning and perhaps more recent looting or prospecting. They concluded that the placer tailings were consistent with shallow placer mining using hand-screening techniques—this type of mining was common throughout the second half of the nineteenth century in California. Although the property was owned by Potter, Bruce, and Lucas during the period of mining, there is no evidence that they, themselves were the miners. As a result, the site is not associated with people important to the past (Criterion 2/B). Similarly, there is no evidence that the site was associated with gold discovery or even fruitful mining and therefore is not associated with events important to the past (Criterion 1/A). Lacking architecture, the site does not embody characteristics of a type, period, or method of manufacture and is not eligible under Criterion 3/C. Finally, fieldwork in 2017 did not yield sufficient artifacts to answer regional research questions associated with regional history and the site lacks eligibility under Criterion 4/D. Taken together, the site is recommended not eligible for listing on the California and National Registers. Despite the negative findings on the site, there is still the potential for accidental discovery of archeological or paleontological resources. The potential for discovery and disturbance of any of these resources during excavation is considered potentially significant.

Implementation of *Mitigation Measure CULT-2* would ensure that potentially significant impacts to archaeological and paleontological resources are reduced to a ***less-than-significant*** level.

Mitigation Measure CULT-2: Archaeological and Paleontological Resources

Prior to the start of grading operations for each phase of the project the Applicant shall provide reasonable notice and site access for a tribal representative to be present at the project site during any ground disturbing activities in areas mapped by the Mechoopda Indian Tribe of Chico Rancheria as High Sensitivity areas. If any archaeological or paleontological deposits are encountered, all soil-disturbing work shall be halted at the location of any discovery until a qualified archaeologist or paleontologist evaluates the significance of the find(s) and prepares a recommendation for further action. If the project site is expanded beyond its current limits, additional cultural resource studies shall be required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the mitigation measures prescribed above would reduce significant project impacts on prehistoric archeological and paleontological resources to a ***less-than-significant*** level.

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