PUBLIC REVIEW

CULTURAL RESOURCES INVENTORY REPORT FOR THE P-18 AND P-17B TRUNKLINE PROJECT (CAPITAL PROJECT NO. 50424), CITY OF CHICO, BUTTE COUNTY, CALIFORNIA

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Acronyms and Abbreviations

APE	Area of Potential Effects
BLM	U.S. Department of the Interior Bureau of Land Management
BP	Before Present
CCTS	Central California Taxonomic System
CE	Common Era
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historic Resources Information System
City	City of Chico
CRHR	California Register of Historical Resources
Diversion Channel	Butte Creek Diversion Channel
HUD	United States Department of Housing and Urban Development
NAHC	California Native American Heritage Commission
NEIC	Northeast Information Center
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
Project	P-18 and P-17B Trunkline Project (Capital Project No. 50424)
SHPO	State Historic Preservation Officer
SR 99	State Route 99
UPRR	Union Pacific Railroad
USGS	U.S. Geological Survey

Introduction

This cultural resources inventory report documents the efforts to identify cultural resources in the Area of Potential Effects (APE) for the P-18 and P-17B Trunkline Project (Project). The City of Chico (City) is proposing to install a sewer trunkline in the unincorporated region outside of the south section of the City boundary. The trunkline would service the majority of the Honey Run/Doe Mill Special Planning Area, South Entler Special Planning Area, and commercial and industrial uses in the area (Appendix A, *Figures*). The City of Chico is financing a portion of the project with grant money received from the U.S. Department of Housing and Urban Development (HUD). As described in Title 24 of the Code of Federal Regulations, Part 58 (24 CFR Part 58) Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities, the City of Chico is a Responsible Entity and assumes HUD's environmental responsibilities for environmental review, decision-making, and action that would otherwise apply to HUD under NEPA and for environmental coordination and consultation under other laws including the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA).

Preliminary work has determined that the project has potential to impact waters of the U.S. and a federal Project levee and will require a Clean Water Act Section 404 (33 U.S. Code Section 1344) permit and Rivers and Harbors Act Section 14 (33 U.S. Code Section 408) Permission from the U.S. Army Corps of Engineers (Corps). The City of Chico as lead agency is consulting on behalf of the Corps for the purpose of compliance with the ESA and Section 106 of the NHPA.

This cultural resources study included an archival records search, coordination with the California Native American Heritage Commission (NAHC), outreach to local Native American contacts, and an intensive archaeological pedestrian survey. A records search was performed at the Northeast Information Center (NEIC) of the California Historic Resources Information System (CHRIS) at California State University, Chico (Appendix B, *Records Search Results*). The records search indicated that 39 previous studies were conducted within 0.25 mile of the APE. The search also identified four previously recorded cultural resources within 0.25 mile of the APE. However, none of the previous studies or resources were within the APE.

The results of a search of the NAHC's Sacred Lands File for the APE indicated that the NAHC has no record of any sacred sites in or within the immediate vicinity of the APE. In addition to consultation with the NAHC, letters were sent to 12 Native American contacts listed by the NAHC, and follow-up outreach efforts were conducted, which consisted of phone calls and emails. As of submittal of this report, one response was received from the Mechoopda Indian Tribe of the Chico Ranchera requesting a tribal monitor be present during all earth-moving and grading activities.

On April 10 and May 3, 2023, ICF archaeologists conducted intensive pedestrian surveys of the entire APE using transects spaced no more than 10 meters apart. No archaeological artifacts or features were identified in the APE during the survey.

As a result of the cultural resources records search, Native American consultation, and pedestrian survey, no cultural resources were identified in the APE.

Pursuant to 36 CFR Section 800.5, Assessment of Adverse Effects, the results of this study conclude that the proposed Project would have no adverse effect on historic properties or significant historical resources for the purpose of CEQA (Public Resources Code [PRC] Section 5024.1[d][1]).

Project Location and Setting

The proposed Project is located in the south portion of the City of Chico in Butte County, California, at an elevation ranging from 210 to 222 feet above mean sea level. The Project extends generally southwest to northeast as follows: within the Hegan Lane right-of-way to Midway; along Midway, under the existing bike path east of the roadway, between Hegan Lane and Entler Avenue; under Entler Avenue between Midway and State Route 99 (SR 99); turning and continuing under Entler Avenue parallel to SR 99; boring under SR 99; along a section of the Union Pacific Railroad (UPRR) alignment and an unpaved alignment between the railroad grade and the paved Cramer Lane; boring under Comanche Creek; continuing along under the paved Cramer Lane between an unpaved area to the south and Morrow Lane; within Morrow Lane between Cramer Lane and Butte Creek Diversion Channel (Diversion Chanel); boring under Diversion Channel and terminate east of a manhole on the south side of Skyway. The Project would also include staging areas for equipment and supplies in various graveled or paved locations throughout the City; however, these locations have not been finalized yet (Appendix A, *Figures*).

Project Description

The Project would install a sewer trunkline mainly in the unincorporated region outside the south section of the City limits. The trunkline would service the majority of the Honey Run/Doe Mill Special Planning Area, South Entler Special Planning Area, and commercial and industrial uses in the area. The proposed trunkline pipe diameter would range from 1.25 –2.25 feet (18–27 inches), the trench width would be 6 feet wide with total easements being 40 feet wide.

The trunkline would extend approximately 2.85 miles easterly starting from the existing P-17A sewer trunkline located near the intersection of Hegan Lane and the Comanche Creek Greenway bike path. From the connection point, the trunkline would cross Hegan Lane and travel under the Class I bike lane located immediately east of the northbound lane of Midway to Entler Avenue. The trunkline may be located in the northbound lane of Midway for approximately 300 feet of this distance to avoid conflict with an existing gas line under the bike path. The trunkline would continue along Entler Avenue going east, then continue along Entler Avenue going south for approximately 530 linear feet before crossing underneath SR 99 and extending along the UPRR right-of-way for approximately 630 linear feet. The trunkline would then shift north along a City easement, continues through Cramer Lane and heads east at Morrow Lane. At the terminus of Morrow Lane, the Project would continue along the southside of Skyway and terminate just past the Potter Road intersection, 191 feet east of a manhole.

Construction

Area of Disturbance and Excavation

The proposed trunkline areas of disturbance for construction, construction equipment staging, and vegetation grubbing and clearing are described below.

The pipeline laydown and construction work-area width would be restricted to a 40-foot-wide easement, except where it would be limited to the right-of-way, as noted below.

- Hegan Lane to Midway, trenched under existing pavement to the north of the intersection. Staging and construction would be within the right-of-way.
- Midway between Hegan Lane and Entler Avenue, trenched under the existing bike path east of the roadway. The trunkline may be located in the northbound lane of Midway for approximately 300 feet of this distance to avoid conflict with an existing gas line under the bike path. Staging and construction would be limited to the eastern right-of-way line to the easterly edge of pavement of Midway, which includes removal and replacement of the bike path and sidewalk.
- Entler Avenue between Midway and SR 99, trenched within the north side/westbound lane of pavement. Equipment would work from the paved eastbound lane.
- Entler Avenue parallel to SR 99, trenched in centerline of paved roadway. Staging and construction would be limited to the southbound lane.
- SR 99 undercrossing with jack and boring that would require a 20-foot by 50-foot pit south of the south-bound lane and a 10-foot-sqaure receiving pit plus a 40-foot clearing and grubbing area on the northeast side of the northbound lane.
- Unpaved alignment between railroad grade and paved Cramer Lane, trenched in approximate centerline. Construction impacts would occur off of the pavement area and include tree removal within the 40-foot-wide disturbance area and vegetation removal.
- Paved Cramer Lane between unpaved area to the south (UPRR alignment) and Morrow Lane to the north, trenched in the centerline of pavement. This section would also require jack and boring to construct a casing pipe under Comanche Creek. Because the pavement area is narrower than the 40-foot construction area, construction impacts may occur off of the pavement area, including tree removal. The jack-and-bore pit and clearing and grubbing area would not extend into creek or wetland habitat, but it would require the removal and replacement of 22 feet of storm drain: Morrow Lane between Cramer Lane to where the road becomes Skyway, and then to Diversion Channel; trenched in south-side/eastbound lane pavement. Equipment would work from the paved westbound lane. The jack-and-bore pit located east of Diversion Channel, with the receiving pit to its west.
- Skyway west of Potter Road, trenched off-pavement to south at toe of roadway fill slope. Equipment would be staged and used from the paved eastbound lane.
- Eastern terminus of Morrow Lane includes the installation of a manhole at the south end of an existing 36-inch culvert and connection to a 40-foot-long pipe in the existing drainage ditch.
- Skyway east of Potter Road , terminating just past Potter Road intersection terminating 191 feet east of a manhole. Equipment would be staged and used from the paved eastbound lane. .

Underground boring would occur at three locations to avoid impacts on surface features; these are at SR 99, Comanche Creek, and Butte Creek Diversion Channel. Each boring location would require a rectangular 20-foot-by-50-foot jack-and-bore pit for pipeline insertion, and a square 10-foot receiving pit. The maximum grading and excavation depth needed for most Project trenching, manhole-access, and jack and boring is primarily 10 feet, with depths up to 15 feet required in some locations.

Project construction would also require temporary staging areas for construction-related items such as vehicles, equipment, office trailers, portable toilets, pipes, manholes, and other construction materials; the stockpiling of fill and backfill; and construction vehicle refueling and maintenance.

The use of these areas would be temporary, and the timeframe would not exceed the duration of Project construction. All staging areas would be restored to pre-project conditions at the completion of the Project.

Construction Schedule

The Project is proposed to be constructed within two seasonal construction windows, between April and October. Project construction would begin as early as spring 2026 and would be completed no later than fall 2030. The conceptual phasing plan includes three phases: Phase 1, from Hegan Lane to SR99; Phase 2, from SR99 to Morrow Lane; and Phase 3, from Morrow Lane to the Potter Road terminus.

Lane Closure Management

Project construction would require temporary lane closures. The bike lane along Midway would be closed during pipeline construction at this location. There may also be intermittent lane closures with one-way controlled traffic, but with no complete closures. There also would be short-term (less than 15 minutes) interrupted vehicle access to adjacent properties; apart from these minimal delays, access to properties would be ensured at all times. While the trail Comanche Creek Trail would remain accessible during construction, some off-site parking along the southern end of Cramer Lane could experience temporary closures as construction activities occur in the public right-of-way along the frontage of the Mendocino National Forest Genetic Resource and Conservation Center.

Construction Equipment

Typical construction equipment would include pneumatic jack hammers, excavators, grading equipment, paving equipment, concrete equipment, striping equipment, generators, or other similar devices.

Compliance Features

All construction noise would be temporary and subject to the noise limits in the Chico Municipal Code, Chapter 9.38 Noise Ordinance, which regulates noise generation within the City of Chico. Construction activity noise is restricted to the hours of 7:00 a.m. to 9:00 p.m. on weekdays (10:00 a.m. to 6:00 p.m. on weekends and holidays), unless otherwise approved by the City Engineer. No night or weekend work is anticipated for the Project.

At both Comanche Creek and Butte Creek Diversion Channel, the Project would install temporary silt fences in accordance with Caltrans Standard Plan T51 at top of each bank, extending 25 feet in each direction of the pipeline. The jack and bore pits would require dewatering during construction.

Area of Potential Effects

The APE includes both the horizontal and vertical maximum extents of potential impacts, including areas of new construction, temporary access, and any staging areas as described in the *Project Description* section. The horizontal APE includes the entire Project footprint as depicted in the APE map in Appendix A, *Figures*. The vertical APE consists of the height of any proposed construction and the depth of any excavations associated with the Project. It is assumed that the vertical APE

could extend down to 15 feet below the existing ground surface for the excavation and placement of buried utility infrastructure. Based on the Project description, field survey, and analysis of previously identified historical resources, there are no built environment historic properties in the APE.

Regulatory Setting

California Environmental Quality Act

CEQA requires public or private projects that are financed or approved by public agencies to assess the effects of the projects on historical resources. *Historical resources* are defined as buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. If a project would result in an effect that causes a substantial adverse change in the significance of a historical resource, CEQA requires that alternative plans or measures to mitigate the effect be considered; however, only significant historical resources need to be addressed. Therefore, the significance of cultural resources must be determined.

The following steps are normally taken in a cultural resource investigation for CEQA compliance.

1. Identify cultural resources.
2. Evaluate the significance of the resources.
3. Evaluate the effects of the project on significant resources.
4. Develop and implement measures to mitigate the effects of the project on significant resources.

The CEQA guidelines define three ways that a property may qualify as a significant historical resource for the purposes of CEQA review.

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15064.5[a]).

Each of these ways of qualifying as a significant historical resource for the purposes of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC Sections 5020.1[k], 5024.1, 5024.1[g]).

A historical resource may be eligible for inclusion in the CRHR if it is associated with, embodies, or yields one of the following.

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

Properties that are listed in or eligible for listing in the 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]).

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA (54 United States Code Section 306108) requires that effects on historic properties be taken into consideration in any federal undertaking. "Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria" [36 CFR Section 800.16(l)].

Implementing regulations in 36 CFR Part 800 outline the process whereby federal agencies, in consultation with the State Historic Preservation Officer (SHPO) and other consulting parties, identify historic properties in the APE of a proposed Project and make a finding of effect. If the Project is determined to have an adverse effect on historic properties, the federal agency is required to consult further with the SHPO and the Advisory Council on Historic Preservation to develop methods to resolve the adverse effects.

The Section 106 process has six basic steps.

1. Initiate the Section 106 process, including the identification of consulting parties, such as Native American tribes.
2. Identify the APE, in consultation with the SHPO and other consulting parties.
3. Identify if any historic properties are located in the APE.
4. Assess the effects of the undertaking on historic properties within the APE.
5. If historic properties may be subject to an adverse effect, the federal agency, the SHPO, and any other consulting parties (including Native American tribes and the Advisory Council of Historic Preservation) continue consultation to seek ways to avoid, minimize, or mitigate the adverse effect. A Memorandum of Agreement is usually developed to document the measures agreed upon to resolve adverse effects. Alternatively, the federal agency may prepare and execute a Programmatic Agreement with the aforementioned parties to comply with 36 CFR Part 800, particularly in the context of complex undertakings that entail years of implementation actions or where the undertaking's effects on historic properties cannot be well characterized during the planning phase.
6. Proceed in accordance with the terms of the Memorandum of Agreement or Programmatic Agreement.

Cultural resources are eligible for listing in the NRHP if they have integrity and significance as defined in the regulations for the NRHP. Four primary criteria define significance; a property may be significant if it displays one or more of the following characteristics.

A. It is associated with events that have made a significant contribution to the broad pattern of our history.

B. It is associated with the lives of people significant in our past.

C. It embodies the distinct characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or it represents a significant and distinguishable entity whose components may lack individual distinction.

D. It has yielded, or is likely to yield, information important in prehistory or history (36 CFR Section 60.4).

Some types of cultural resources are not typically eligible for listing in the NRHP. These resources consist of cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years. These property types may be eligible for listing in the NRHP, however, if they are integral parts of eligible districts of resources or meet the criteria considerations described in 36 CFR Section 60.4.

In addition to possessing significance, a property must also have integrity to be eligible for listing in the NRHP. The principle of integrity has seven aspects: location, design, setting, materials, workmanship, feeling, and association (36 CFR Section 60.4). To retain historic integrity, a property will always possess several, and usually most, of the qualities of integrity (U.S. Department of the Interior 1995:44).

Cultural Setting

The following setting and cultural context discussions focus on the patterns of development in the vicinity of the Project and specific resources in the vicinity of the APE.

Archaeological Context

Prehistoric Context

As a result of continuing research and interpretation, the archaeological record of the Central Valley has been approached in two fundamentally different ways: the first is chronological, and the second involves the elucidation of contemporaneous cultural patterns. The following discussion is a succinct description of both approaches to Central Valley prehistory, beginning with the nascent, salvage-oriented archaeology of the late-nineteenth century, followed by the development of cultural historical frameworks for the Central Valley under the aegis of Sacramento Junior College and the University of California. The discussion moves from this chronologically oriented approach to the functional and systems approaches favored in California archaeology from the 1960s to the present. Early explanations for cultural change usually were linked to the movements of people. In 1939, a synthesis of this research was published and later expanded into the Central California Taxonomic System (CCTS) (Lillard et al. 1939). Later refined by Heizer (1949) and Beardsley (1948, 1954a, 1954b), the CCTS was characterized by specific artifact types, mortuary practices, and other cultural features.

Subsequent archaeological research was aimed at refining the CCTS and incorporating the study of paleoenvironmental change, settlement patterns, population movement, subsistence strategies, and development of exchange networks. These studies led to the development of a second approach. As absolute dates became available for sites with early, middle, and late assemblages, it was discovered that sites with different assemblages were contemporaneous. This discovery, along with a change in archaeological paradigms to a more economic and functional orientation in the 1960s, led to a reorganization of the CCTS. This new scheme used the same archaeological manifestations to differentiate sites as did the CCTS but ordered sites into functional groups rather than temporal ones, which led to the establishment of different cultural models for many localities of central California. This approach was advanced by Fredrickson (1973), who used the term *pattern* to describe an "adaptive mode extending across one or more regions, characterized by particular technological skills and devices, and particular economic modes." These patterns, while generally corresponding to the Early, Middle, and Late horizons within the Central Valley, were conceptually different and free of spatial and temporal constraints. By changing the paradigm from a cultural/historical orientation to a more processual/adaptive one and introducing the concept of pattern, Fredrickson addressed problems with the chronological and regional sequences that had been nagging archaeologists for several decades.

The taxonomic framework of the Sacramento Valley is described in the following sections in terms of archaeological patterns, following Fredrickson's (1973) system. Following the discussion of the patterns, a brief summary is provided of four local complexes representative of the archaeology of the Augustine Pattern that were identified as a result of excavations at Lake Oroville.

Terminal Pleistocene and Early Holocene: 13,500–7000 BP

At the end of the Pleistocene (roughly the beginning of the Paleoindian Period), circa 13,500 to 10,500 Before Present (BP), parts of the Sierra Nevada adjacent to the Central Valley were covered with large glaciers (West et al. 2007:27), and the valley provided a major transportation route for animals and people. The transportation corridor, perhaps rivaled only by maritime coastal travel (Erlandson et al. 2007), was undoubtedly used heavily by early Californians. Evidence for human occupation during this period, however, is scarce, the hypothesized result of being buried by deep alluvial sediments that accumulated rapidly during the late Holocene (Westwood 2005:17). Although rare, archaeological remains of this early period were reported in and around the Central Valley. Johnson (1967:283–284) presents evidence for some use of the Mokelumne River area, under what is now Camanche Reservoir, during the late Pleistocene. Archaeologists working at Camanche Reservoir found a number of lithic cores and a flake that are associated with Pleistocene gravels. These archaeological remains were grouped into what is called the Farmington Complex, which is characterized by core tools and large, reworked percussion flakes (Rosenthal et al. 2007:151).

Middle to Late Holocene: 7000–1200 BP

During the Lower Archaic Period, beginning approximately 6000 BP, a shift to a more specialized subsistence strategy began to take place. The more specialized strategy focused on ways of increasing the amount of food that could be produced from smaller portions of land. This change can be at least partially explained by the increasing numbers of people living in the Central Valley. An increased population is indicated by a much more abundant archaeological record and by dietary stress, as indicated by dental pathologies (Moratto 1984:203–204). As the population slowly increased, it became more difficult for people to obtain seasonally available resources across large

areas of land. The beginnings of this intensification can be seen in the Middle-Archaic Windmiller Pattern (4500–2800 BP) and is based on the assemblage at the Windmiller site (CA-SAC-107). Windmiller Pattern origins are believed to be linked to the arrival of Utian peoples from outside California who were adapted to riverine and wetland environments. Settlement strategies during the Windmiller period reflect seasonal adaptations; habitation sites in the valley were occupied during winter, but populations moved into the foothills during summer (Moratto 1984).

Material culture from the Windmiller Pattern include mortars and millingstones, quartz crystals, charmstones, projectile points, shell beads and ornaments, and bone tools. New elements include steatite beads, tubes and ear ornaments, slate pendants, and burial of the dead in flexed positions with variable orientation or cremations accompanied by fewer grave goods. During this period, flexed burials are found alongside extended burials at CA-COL-247, contrary to the pattern elsewhere in the valley, which saw near exclusive use of flexed burials for interment of the deceased (Moratto 1984; Rosenthal et al. 2007:155; White 2003:175). The use of grave goods generally declined (Moratto 1984), and trade continued to be important (Beardsley 1948; Fredrickson 1973; Heizer and Fenenga 1939; Lillard et al. 1939; Moratto 1984).

Late Horizon: 1200 BP to Historic Period

The predominant generalized subsistence pattern during this period is called the Augustine Pattern (1200 BP) and shows a high degree of technological specialization (Fredrickson 1973). Development of the Augustine Pattern was apparently stimulated by the southward expansion of Wintuan populations into the Sacramento Valley (Moratto 1984). The Augustine Pattern reflects a change in subsistence and land use patterns to those of the ethnographically known people of the historic era. This pattern exhibits a great elaboration of ceremonial and social organization, including the development of social stratification. Exchange became well developed, and an even more intensive emphasis was placed on the use of the acorn, as evidenced by the presence of shaped mortars and pestles and numerous hopper mortars in the archaeological record.

Other notable elements of the artifact assemblage associated with the Augustine Pattern include flanged tubular smoking pipes, harpoons, clam shell disc beads, bone awls for basketry, bone whistles, stone pipes, and an especially elaborate baked clay industry, which includes figurines and pottery vessels (Cosumnes Brownware). The presence of small projectile point types, referred to as the Gunther Barbed series, suggests the use of bow and arrow. Other traits associated with the Augustine Pattern include the introduction of preinterment burning of offerings in a grave pit during a mortuary ritual, increased village sedentism, maintenance of extensive exchange networks, population growth, and an incipient monetary economy in which beads were used as a standard of exchange. Burials were flexed with variable orientation and generally lacked grave goods (Beardsley 1948; Fredrickson 1973; Moratto 1984; Ragir 1972).

Lake Oroville Complexes

Moratto (1984) summarizes the archaeological work done at Lake Oroville by Jewell in 1964, Olsen and Riddell in 1963, and Ritter in 1968. These studies resulted in the identification of four Lake Oroville complexes: Mesilla, Bidwell, Sweetwater, and Oroville.

The Mesilla Complex (1000 Before Common Era to 1 Common Era [CE]) may exemplify "…a local western foothills manifestation of the Martis occupation of the Northern Sierra" (Dreyer and Kowta 1986). Associated with sporadic occupation and the use of the atlatl and dart points made of basalt, slate, and cryptocrystalline silicates, the Mesilla Complex is characterized by the use of bowl

mortars, milling slabs, *Haliotis* and *Olivella* shell beads, and limited charmstones and bone pins, suggesting contact with Sacramento Valley peoples.

The Bidwell Complex (1 to 800 CE) may represent a transition to more permanent villages from which smaller groups ventured to hunt, fish, and gather acorns, seeds, and freshwater mussels. The Bidwell Complex is characterized by steatite vessels, net sinkers, and large basalt drills. The use of the bow and arrow appears to arise during this period.

The Sweetwater Complex (800 to 1600 CE) represents a phase of population growth, increased use of acorn, and an increased emphasis on luxury items. The number, variety, and embellishment of material goods also increase during the Sweetwater Complex. These include bone artifacts (pins, fish gorges, awls), shell artifacts (abalone ornaments, freshwater clam spoons, and *Olivella* beads), and goods manufactured from steatite (tubular pipes, cups, platters, and bowls) (Dreyer and Kowta 1986).

Trends from the Sweetwater Complex continue in the Oroville Complex (1600 to 1833 CE). Incised bones, tubes, gorge hooks, gaming bones, and clamshell disc beads are some of the distinctive artifacts of the Oroville Complex.

Ethnographic Context

Ethnographically, the Konkow Maidu occupied the areas surrounding Chico and Oroville, along the Sacramento and Feather Rivers as well as a portion of the Sacramento Valley (Riddell 1978). From the Sacramento Valley, the Konkow territory extended northeast into the Feather River Canyon along areas surrounding the North Fork of the Feather River. Konkow is one of three languages composing the Maiduan language family of the Penutian linguistic stock. Several dialects of Konkow were spoken from the lower extent of the Feather River Canyon to the surrounding hills and in the adjacent parts of the Sacramento Valley (Shipley 1978).

The Konkow lived in communities of three to five villages, in round semisubterranean houses covered with earth. It is estimated that a typical village consisted of approximately 35 people during ethnographic times. Villages were made up of smaller groups. Family units usually were made up of two to five people. A major village with a large assembly and subterranean ceremonial lodge served as the central ceremonial and political focus for affiliated villages in the vicinity. The political leader (chief) lived in the ceremonial lodge. The chief's primary roles were advisor and spokesman. The individual villages were self-sufficient, not under the control of a headman (Riddell 1978).

In winter, the Konkow settled in widely dispersed patterns along river canyons, usually on ridges high above rivers and generally on small flats on the crest of the ridge, or halfway down the canyon side. A village-community owned and defended a known territory, which served as a communal hunting and fishing ground. Some villages were located strategically atop isolated knolls in consideration of attack and defense. The Konkow followed an annual gathering cycle that made it necessary for them to leave their winter settlements on the river ridges. In the summer, they traveled into the mountains to hunt. In the spring, they ventured into the valley areas to collect grass seeds (Riddell 1978).

The Konkow economy was a mixture of hunting, fishing, and gathering. They managed their food resources skillfully, which made it possible for them to have a surplus during the nonharvest times. During harvest times, families gathered greens, tubers and roots, seeds, nuts, and berries. Although wild rye was common in their diet, and pine nuts were highly valued, the most important of the

harvested foods were acorns, from black oak in particular. The Konkow managed their environment with a method of burning, which enhanced favorable ecozones. The Feather River provided a wealth of fish resources, mainly in the seasonal salmon runs. Lamprey eel also were abundant and favored by the Konkow in ethnographic times. Hunting was also an important source of food for the Konkow. Deer was the main game animal, but others included elk, rabbits, squirrels, and birds such as quail, pigeons, and ducks (Riddell 1978).

Because the Konkow had no complex political organization, the shaman was an important figure in their society. With his mysterious powers and spiritual communication, he provided a sense of unity in the village community. He functioned in ceremonies and festivals and served as a medical doctor. The office of shaman was an inherited one, falling to a son after the shaman's death (Riddell 1978).

The Konkow held an annual mourning ceremony, the Keruk, for the recently deceased, which reenacted the death of the creator, Kukumat. For this ceremony, a male and female effigy were created, clothed, and burned. Other things such as food, money, and blankets were given to the god by burning. The Maidu participated in the Kuksu cult, also practiced by the Patwin, Pomo, northern Costanoans, and the Coast and Sierra Miwok. Kuksu, "the South God," renews the world each year. The ritual was celebrated in round dance houses by dancers with elaborate costumes, including large feather headdresses (Riddell 1978).

Konkow life was little affected by European contact until the gold rush in 1849, which was particularly devastating for them. The abundant gold in the Feather River and surrounding foothills lured hordes of miners to the area. The miners brought diseases that were deadly to the native peoples, decimating the population. These miners also destroyed the landscape with their mining techniques and violently drove the surviving Konkow from their lands. When the mining craze was over, the miners settled in the area and turned large tracts of land into agricultural fields.

Because the miners wanted their land, the Konkow were driven off their traditional lands twice. In 1853 they, along with other Native American groups, were rounded up and sent to the Nome Lackee reservation in Tehama County. This was not a successful reservation, and most of the families returned to their original lands. In 1863 the Konkow again were rounded up by the militia and driven in what is now remembered as the Death March across the Coast Range to the Round Valley Reservation in northern Mendocino County. Many of these families remain in Round Valley today. Around the turn of the twentieth century, several small Rancherias were created, finally establishing a legal land base for them and formalizing their tribal status with the federal government. Today, the Konkow are very active in cultural preservation in and around the Palermo/Feather River area (California Department of Water Resources 2004).

Historic Context

Rancho Arroyo Chico Land Grant

Governor Manuel Micheltorena of Alta California, Mexico granted a large tract "east of the Sacramento River at its confluence with Chico Creek," to William Dickey in 1844. The roughly 22,000-acre tract was then known as Rancho Arroyo Chico, or "Little Stream Ranch." Dickey was part of a community of businessmen in the Sacramento Valley that included George W. McKinstry Jr., and John Bidwell, as well as the more established John Sutter. Dickey eventually sold interest in his land grant to McKinstry in 1849. Between 1849 and 1850, McKinstry sold his interest in two halves: Bidwell purchased half and Justus McKinstry, a relative, purchased the other half. In 1851, Justus

McKinstry sold his interest to Bidwell, who then became the sole owner of Rancho Arroyo Chico (Beckham 2006:5–6; Hunt 1942:247–249).

John Bidwell

Born in New York in 1819, John Bidwell served as a primary member of the first emigrant party to cross the desert west to California in 1841. John Sutter, founder of Sutter's Fort in Sacramento, employed Bidwell as his business manager for Sutter's Hock Farm. Bidwell spent almost a year in Bodega Bay on the Pacific Coast overseeing disassembly of Fort Ross, which was purchased by Sutter to recycle as building materials for Sutter's Fort in Sacramento. In 1843, Bidwell was pursuing horse thieves when he passed through the area surrounding Big Chico Creek and Rancho Arroyo Chico, catching his first glimpse of what he described as "one of the loveliest places" in the region.

In 1846, Bidwell purchased a part-interest in Rancho Farwell in present-day Butte County and purchased lands south of Chico Creek by 1847. Bidwell served in the California Battalion of the American armed forced under John C. Fremont in the United States' war with Mexico over control of Alta California and other Mexican interests. He remained in Fremont's command until May 1847, after which he began pursuing his interests in gold mining. Following Sutter's example, Bidwell exploited indigenous people to reduce labor costs (White 2015:vii, 16, 20–21; Beckham 2006:6).

Utilizing indigenous labor and inspired by James Marshall's gold discovery in 1848 east of Sacramento around Sutter's Mill in Coloma, Bidwell began scouting streams around Rancho Farwell, eventually developing gold mining sites along "Bidwell Bar" on the Feather River. Bidwell's fortune from these ventures gave him the means to purchase more landholdings. By 1851, Bidwell had acquired the entire acreage of Rancho Arroyo Chico, directly north and east of Rancho Farwell. He established agricultural and commercial interests in anticipation of population influxes following the disclosure of the discovery of gold at Sutter's Mill (White 2015:21). However, the legality of Bidwell's ownership took several years to secure, due in part to the disputes surrounding recognition of ownership of Mexican land grants after California became part of the United States. Bidwell's ownership of the 22,214-acre Rancho Arroyo Chico was as recorded in a deed held at Butte County, California in March 1859 (Beckham 2006:6).

From the late 1840s through 1860s, Bidwell focused on his agricultural pursuits, as well as founding the town of Chico. Bidwell began an experimental orchard at Rancho Arroyo Chico in 1847, planting over 400 varieties of fruits on roughly 1,800 acres. By 1857, Bidwell cultivated some 350 acres, including a "diverse array of tree and row crops." Records indicate that by 1860, Bidwell's household included 28 Euro-American males employed to operate his estate, but there is no record of the indigenous laborers upon whose labor Bidwell's agricultural certainly interests relied. Bidwell also operated a vineyard in the mid-1860s, despite his support of the prohibition of alcohol. After his marriage to Annie E. Kennedy in 1868, the vineyard was removed, and no wine grapes ever were planted on his land again. His farming operations included founding one of the first raisin operations in the area, as well as the manufacturing of olive oil (Kyle et al. 2002:37; White 2015:16; California Department of Parks and Recreation 2023).

City of Chico

Founded in 1860 by John Bidwell and incorporated as a city in 1872, the City of Chico came to prominence as an important economic hub for settlers seeking gold after its regional discovery by

Bidwell and his business partners along the Feather River in 1848. The grid-pattern of the City sits northwest of the APE, skewed slightly northwest–southeast in aerial images, and grew from this original orientation of the Sacramento Northern Railroad lines and the Esplanade (a major city thoroughfare) (Nationwide Environmental Title Research (NETR) 1941; Huberland 2016:1–2). Naming conventions for streets branching off the route highlight this point as the East and West directions originate at the Esplanade. When Bidwell laid out the town, he donated land to churches and schools, most notably setting aside a plot of land for what would become California State University, Chico. Bidwell also encouraged Chico's growth as an important agricultural and commercial center. Crops grown in the area included almonds and peaches, as well as wheat, flour and lumber (City of Chico 2017:11-1). One of the most noteworthy public spaces in Chico is Bidwell Park, north of the APE. Bidwell Park was first established in 1905 with 1,900 acres of land along Big Chico Creek that was donated by Annie Bidwell, the widow of John Bidwell. Six years later, an additional 301 acres were donated as part of the park. To this day, Bidwell Park is the second-largest park in the state (Kyle et al. 2002:38). Today, Chico supports a core population of some 107,394 people (as of 2023) with a wider urban population of 224,601 with key business industries of food and beverage, agriculture, consumer products, and manufacturing (Constantin 2019, CA DOF 2023).

Methods

Identifying cultural resources in the APE for the Project included conducting a records search and a review of the archaeological, ethnographic, and historical literature; consulting with NAHC and Native American representatives from federally recognized tribes; examining historic maps and aerial imagery; conducting archival research; and performing a field survey. These methods and their results are described in this section.

Records Search and Prefield Research Methods

Records Search

On March 2, 2023, Stephen Pappas of ICF conducted a records search at the NEIC of CHRIS at California State University, Chico (IC File No. #NE-108; Appendix B). The NEIC maintains the State of California's official records of previous cultural resource studies and recorded cultural resources for Butte County. The records search area included the Project, as well as a 0.25-mile buffer around the APE. Additional sources of information were reviewed, including historic maps from the U.S. Geological Survey and the General Land Office, to determine areas that have a high potential for the presence of historic and prehistoric sites.

The following resources were also reviewed.

- The Office of Historic Preservation (OHP) Historic Property Data File for Butte County (Office of Historic Preservation 2012a)
- The OHP Archaeological Determinations of Eligibility for Butte County (Office of Historic Preservation 2012b)
- NRHP website (National Park Service 2023)
- California Historical Resources website (Office of Historic Preservation 2023)

- U.S. Department of the Interior Bureau of Land Management's General Land Office Records database (Bureau of Land Management 2023)

Previous Research

The records search indicates that 39 cultural resources studies have been conducted within the 0.25-mile records search radius, including within the APE. Of the 39 studies within the records search radius, 14 intersected a portion of the APE (Table 1).

Table 1. Previous Cultural Resources Studies Conducted in the APE

Study #	Year	Author(s)	Title
NEIC-000164	1977	Janet P. Friedman, John D. Furry, Dawn Henrici, William White, and Edward I. Friedman	*Emergency Archaeological Excavation (Phase I) and Surface Reconnaissance (Phase II), Chico Tree Improvement Center, Butte County, California*
NEIC-000164	1978	Peter Jensen	*Second Season's Fieldwork at CA-BUT-296 (Locus I) Mendocino National Forest Chico Tree Improvement Center*
NEIC-000827	1987	Trudy Vaughan	*US Sprint Fiber Optic Cable Project Oroville, California to Eugene, Oregon: Addendum #4 to the Technical Report, Cultural Resources Survey of the Proposed Regeneration Stations and Point of Presence Sites from Oroville to Eugene*
NEIC-001984	1998	Peter M. Jensen	*Archaeological Inventory Survey: Proposed Midway Bike Path, c. 1/2 Mile Linear Corridor, Hegan Lane to Intersection of East Park Avenue and Park Avenue, Chico, Butte County, California*
NEIC-002243	1998	Peter M. Jensen	*Archaeological Inventory Survey for the CASCO Asphalt Co. Proposed Relocation Site on the Skyway, Chico, Butte County, California*
NEIC-005967	1978	James P. Manning	*Archaeological Reconnaissance of three properties: Messerole, Hobson, and Brown, c. 22.6 acres, Butte County, California, Letter Report to Earl Nelson, Director, Environmental Review*
NEIC-006407	2005	Lori Harrington	*An Archaeological Evaluation of the Chico Neighborhood Church Project, Chico, California.*
NEIC-006750	2005	Lori Harrington	*An Archaeological Evaluation of the Potter Bike Path Project, Chico, Butte County, California.*
NEIC-007232	1978	James P. Manning	*Archaeological Reconnaissance of 329 acres of the Southgate Industrial Park, Butte County, California*
NEIC-007234	1980	James P. Manning	*Archaeological Reconnaissance of the Jack Norton Property, Ray Holt Property, Robbins King et. al. Property, and the Neighborhood Church Expansion Property, Butte County, California*
NEIC-007238	1991	Peter M. Jensen	*Archaeological Inventory Survey of the Proposed Chance Subdivision of 9.98 Acres, on the Midway South of Chico, Butte County, California*
NEIC-010705	2009	Meredith Pecora	*Final Cultural Resources Technical Report: Levee Geotechnical Evaluation Program, Butte Creek - Right Bank Levee near Chico, Durham and Nelson, California*

Study #	Year	Author(s)	Title
NEIC-014380	2019	Katherine Cleveland and Ashleigh Sims	*California Department of Water Resources Sacramento Yard and Sutter Yard 2019-2020 Channel Maintenance Areas: Archaeological Architectural Resources Inventory and Evaluation Report*
NEIC-014485	2019	Ashleigh Sims and Robin Hoffman	*California Department of Water Resources, Sutter Maintenance Yard Levee Units Archaeological Survey Report*

As shown in Table 2, four resources were identified outside of the APE but are within the 0.25-mile records search radius. All four resources are built environment resources associated with residences, agriculture, and water conveyance.

Table 2. Previously Recorded Cultural Resources within 0.25 Mile of the APE

Primary/ Trinomial	Age	Archaeological/ Built Environment	Description
P-04-000575	Historic	Built Environment	Stacked rock wall
P-04-001455	Historic	Built Environment	Other—CASCO #1
P-04-003800	Historic	Built Environment	Wright-Patrick House, Patrick House
P-04-004209	Historic	Built Environment	Crouch Ditch

Records

The OHP *Directory of Properties, Historic Property Data File* for Butte County (Office of Historic Preservation 2012a) and *Archaeological Determinations of Eligibility* for Butte County (Office of Historic Preservation 2012b) did not identify any properties or archaeological sites listed in the APE.

The NRHP website interactive map (National Park Service 2023) did not identify any NRHP properties in the APE or within the 0.25-mile records search radius.

The OHP California Historical Resources website (Office of Historic Preservation 2023) identifies the Wright-Patrick House (listed as Old Patrick House, Patrick Ranch) in the California Built Environment Resources Directory as a resource within 0.25 mile of the APE with a Status Code of "3S," which means the property "Appears eligible for listing in the NRHP as an individual property through survey evaluation." There is no indication that this recommendation has been reviewed or confirmed by the California SHPO.

The 1867 General Land Office plat map for Township 21 North, Range 2 East identified the "Road from Chico to Oroville" following the approximate alignment of modern-day Midway Road. Little Butte Creek is depicted south of the APE, and few houses and roads were shown in the vicinity but no mapped features were identified in the APE.

Native American Correspondence

On February 7, 2023, ICF sent a letter to NAHC requesting a search of its Sacred Lands File and a list of individuals and organizations that may have knowledge of properties of cultural or religious importance to Native Americans in the vicinity of the APE. On February 23, 2023, NAHC replied that there were "no Sacred Lands" in the Project vicinity and provided a list of 12 contacts.

On April 21, 2023, ICF mailed letters via certified mail to all 12 contacts provided by the NAHC. ICF conducted follow-up correspondence concerning the outreach letters via phone call, voicemail, and email on May 9, 2023.

On April 24, 2023, ICF received a letter from Mechoopda Indian Tribe of Chico Rancheria representative Kyle McHenry (Tribal Historic Preservation Officer) stating that the areas [redacted] are extremely sensitive, as well as [redacted] and requested a tribal monitor during all earth-moving and grading activities. ICF responded and acknowledged receipt of the tribe's information and forwarded it to the lead agency.

No contact could be made with the Tsi Akim Maidu. The initial letter was returned to ICF on April 26, 2023. ICF then followed up with phone calls on May 9, 2023, to the numbers provided by the NAHC and those provided online. Both numbers had been disconnected. No responses have been received to the multiple outreach attempts.

Outreach efforts to the Mooretown Rancheria of Maidu Indians indicated that the tribe is not aware of any cultural resources but would like to be notified if any human remains or sacred artifacts are found during construction.

Outreach efforts to the Konkow Valley Band of Maidu Indians indicated that the tribe recommended that any projects in the city be deferred to the Mechoopda Indian Tribe.

In all, as of this report's writing, only one informational response and request was received (Mechoopda Indian Tribe of Chico Rancheria) as a result of the outreach efforts. All Native American correspondence and a tracking log is included in Appendix C.

Historical Society Correspondence

In order to gather information on historical built environment resources, outreach was conducted by ICF's architectural historians on April 7, 2023 to five local historical parks, associations, and museums. As part of outreach efforts, letters were emailed to:

- Chico Heritage Association
- Association of Northern California Records and Research
- Bidwell Mansion State Historic Park
- Chico Museum, and
- Valene L. Smith Museum of Anthropology at CSU Chico.

As a result of outreach efforts, no responses were received with any information on historical resources in the area. A correspondence log and letters are provided in Appendix C.

Field Methods

On April 10 and May 3, 2023, ICF Archaeologist Breidy Quispe Vilcahuaman and Marlene Saucedo conducted an intensive pedestrian survey of the entire APE. The survey was conducted by walking 10-meter-wide, east–west, and north–south-oriented transects in order to ensure optimal coverage of the APE.

The surveyed area varied, consisting largely of asphalt highway, gravel paths, large residential and commercial plots, and densely vegetated land adjacent to Comanche Creek. The APE included segments of Morrow Lane, Cramer Lane, Comanche Court, Entler Avenue, Midway Road, and gated private property. Ground visibility varied from excellent (90–100%) along graded sections of public roads, residential driveways, and private driveways, to poor (10–20%) in the densely vegetated pastures adjacent to Comanche Creek.

As a result of the intensive field survey, no new evidence of prehistoric (i.e., Native American) and/or historic resources were encountered in the APE. The records search indicated that two historic-era built environment resources (P-04-004209 and P-04-003800) were previously recorded adjacent to the APE. Site P-04-004209 consists of four segments of Crouch Ditch built in 1888 and located outside of the proposed sewer trunkline. Furthermore, Site P-04-003800 consists of the Wright-Patrick House, a one-story structure located across Midway Road, near staging area 2. During the pedestrian survey, it was confirmed that neither of these two historic-era sites were in the APE.

Once ICF completed the field survey, architectural historians reviewed the Project description, geographic information system mapping of the APE in Google Earth and Google Maps, field survey photographs, and previously identified built environment historical resources identified in the records search to complete a desktop survey and confirm that there were no built environment resources or potential for built environment historical resources in the APE. Particular attention focused on the staging areas across the APE, as well as locations of previously identified built environment historical resources adjacent to, but outside, the APE, such as the Wright-Patrick House (P-04-003800).

Through field and desktop survey analysis, ICF confirmed that all proposed staging areas were void of of-age built environment resources. Outside of the staging areas, ICF confirmed that Project activities adjacent to known built environment historical resources occurred at-grade such that they would have no potential for impacts on built environment historical resources.

Photo 1. Overview of the western end of the APE, view north, parallel to Midway. Photo taken May 3, 2023.

Photo 2. Overview of staging area 1, view east. Photo taken April 10, 2023.

Photo 3. Overview of Entler Avenue, view southwest. Photo taken May 3, 2023.

Photo 4. Overview of the APE, near the California Highway Patrol Office on Southgate Avenue. Photo taken May 3, 2023, view west.

Photo 5. Overview of the area along Cramer Lane, view south. Photo taken May 3, 2023.

Subsurface Sensitivity Identification Efforts

ICF performed additional research to address sensitivity of the APE for buried archaeological sites. Research and review of pertinent geologic, soil survey, and geoarchaeological data for the APE included the following resources.

- U.S. Department of Agriculture, Natural Resources Conservation Service soil survey data (U.S. Department of Agriculture 2023)
- Geoarchaeological Overview and Assessment of California Department of Transportation (Caltrans) District 3—Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways (Meyer and Rosenthal 2008)
- Geologic Map of California: Chico sheet (Burnett and Jennings 1962)

Soil survey data and soil classification types were identified across the APE and cross-referenced with the age of the landforms associated with the identified soils (Meyer and Rosenthal 2008). According to Meyer and Rosenthal's analysis, the surface soils in the APE contain mostly Latest Holocene (2,000 to 150 years old) with areas of Latest Pleistocene (22,000 to 11,000 years old). The APE is adjacent to Comanche Creek and directly west of Chico Creek, both of which are prone to alluvial sediments. Additionally, Burnett and Jennings 1962 geologic map shows the entire APE as Quaternary fan deposits. Because these soils are prone to sediment accumulation, they could contain buried archaeological materials that were previously exposed on the surface. In addition, due to the overall landform age being in the Holocene, which is consistent with human occupation in the area, the majority of the APE is identified as having a high sensitivity for buried archaeological sites.

Conclusions and Recommendations for Cultural Resources

No archaeological resources were identified in the APE as a result of the background search and intensive pedestrian survey.

Geoarchaeological research indicated the presence of Late Holocene soils in the APE. With the presence of Holocene soils in alluvial fans, this area is identified as sensitive for buried archaeological material. Given that the Project involves excavating buried utilities in these areas of Holocene-aged soils, there is a likelihood of encountering buried archaeological deposits.

The overall finding for this study is that no historic properties recognized under Section 106 and no historical resources recognized under CEQA were identified in the APE. All previously recorded built environment resources are outside of the APE and the Project activities are at grade or subsurface level. Therefore, no nearby built environment resources would be affected by the Project.

Inadvertent Discovery of Archaeological Resources

Given the Project location's sensitivity for buried archaeological material, there is a chance of unearthing an archaeological site during ground-disturbing activities. The procedures provided here are for reference and will be followed in the event of a discovery of archaeological resources, including human remains, during Project construction.

If cultural resources are discovered during construction, all construction will immediately stop within 100 feet (30 meters) of the discovery, the location of the discovery will be marked for avoidance, and efforts will be made to prevent inadvertent destruction of the find.

The contractor will notify the city and a qualified archaeologist will be consulted for an onsite evaluation. If the site is eligible or appears to be eligible for listing in the NRHP or CRHR, additional mitigation (e.g., further testing for evaluation or data recovery) may be necessary. In the event that resources are discovered, the city of Chico will retain a qualified archaeologist to assess the find and to determine whether the resource requires further study. Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria.

If human remains are present, treatment will conform to the requirements of state law under California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98.

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Preparers' Qualifications

Stephen Pappas is a Registered Professional Archaeologist with close to 20 years of experience in cultural resources management. He has participated in all aspects of archaeological fieldwork, including survey, test excavation, data recovery, and construction monitoring projects throughout California, Nevada, Arizona, and New Mexico. Stephen has extensive familiarity with meeting the cultural resource requirements of CEQA, NEPA, Section 106 of the NHPA, Clean Water Act Section 404 permits, and other environmental laws and regulations. He exceeds the Secretary of the Interior's Professional Qualifications Standards for work in archaeology.

Appendix A
Figures

Appendix B
Records Search Results

Appendix C

Native American Consultation and Historical Society Correspondence