

APPENDIX F
EXTENDED PHASE I INVESTIGATION (XPI)

EXTENDED PHASE I INVESTIGATION FOR THE COUNTY ROAD 305 OVER WATSON CREEK BRIDGE REPLACEMENT PROJECT, GLENN COUNTY, CALIFORNIA

Federal Aid #: BRL0-5911 (056)



Prepared for:

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and
California Department of Transportation, District 3
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June 2022

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GLENN COUNTY**

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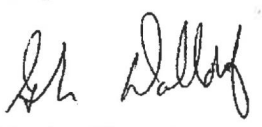

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USGS 7.5-Minute Topographic Quadrangle: Chrome, CA (1995)

June 2022

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SUMMARY OF FINDINGS

This report documents an Extended Phase I (XPI) archaeological investigation for the proposed County Road (CR) 305 at Watson Creek Bridge Replacement Project (Project) in rural north-central Glenn County, California (Figure 1). The County of Glenn Public Works Agency (County), in conjunction with the California Department of Transportation (Caltrans), is proposing the replacement of Watson Creek Bridge (Bridge No. 11C-0091). The purpose of the Project is to improve traffic safety conditions on a public roadway and comply with current County and American Association of State Highway and Transportation Officials (AASHTO) guidelines by: (1) replacing a structurally deficient bridge with a new structure that meets current standards and (2) reconstructing the approaching roadway to transition between the new construction and the existing roadway from both east-bound and west-bound directions.

The XPI investigation was conducted by Pacific Legacy, Inc. under authorization from the County in support of the Project and in compliance with Section 106 of the National Historic Preservation Act. The primary purpose of the XPI investigation was to determine if subsurface archaeological deposits are present that may be adversely affected by ground-disturbing activities associated with Project construction. The Area of Potential Effects (APE) is an irregularly shaped corridor with maximum dimensions of about 329 meters (m) (1,080 ft) east to west and 178.3 m (585 ft) north to south. It extends from west of the intersection of CR 305 and CR 306 eastward beyond the Watson Creek Bridge. The APE is 6.2 acres (2.5 hectares) and encompasses all possible project-related activities including the new road alignment and staging areas. Pedestrian survey of the APE produced negative results for cultural resources (DiMaggio 2020), but the APE lies in an area of very recent sediment deposition adjacent to Grindstone and Watson Creeks, resulting in a high sensitivity for buried archaeological resources that likely lack surface indicators (Meyer and Rosenthal 2008).

The XPI investigation included the mechanical excavation of approximately 15.7 cubic meters (m³) total from eight exploratory trenches located in the APE. The XPI investigation found no evidence of subsurface archaeological deposits in the exploratory trenches, and only modern refuse was noted near or at the surface. However, one buried soil of limited lateral extent was identified in trench sidewalls and spoils in the northwestern portion of the APE (Trench 4), confirming a moderate to high sensitivity for buried archaeological resources in that area. These buried soils are characterized by weakly developed buried AC horizons that are interpreted as being late Holocene in age and available for human occupation for a relatively brief period of time as evidenced by the lack of soil development. Apart from this buried soil, coarse alluvium of extremely gravelly sand and loamy sand that lacked any soil development was observed in a majority of the Project APE. The coarse gravelly alluvium, although of geologically recent deposition, is unlikely to contain any intact archaeological deposits, and none were observed.

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1.0 INTRODUCTION

1.1 PROJECT LOCATION AND DESCRIPTION

This report documents an Extended Phase I (XPI) archaeological investigation for the proposed County Road (CR) 305 at Watson Creek Bridge Replacement Project (Project) in rural north-central Glenn County, California (Figure 1). The County of Glenn Public Works Agency (County), in conjunction with the California Department of Transportation (Caltrans), is proposing the replacement of Watson Creek Bridge (Bridge No. 11C-0091).

The Project is located on CR 305, one mile north of State Route 162, approximately 5.06 miles north of the community of Elk Creek and 3.5 miles south of the community of Chrome. The Project location is within Township 21 North, Range 6 West, Sections 15 and 16, as depicted on the Chrome, California (1995) 7.5-minute USGS Topographic Quadrangle (Figure 2).

The purpose of the Project is to improve traffic safety conditions on a public roadway and comply with current County and American Association of State Highway and Transportation Officials (AASHTO) guidelines by: (1) replacing a structurally deficient bridge with a new structure that meets current standards and (2) reconstructing the approaching roadway to transition between the new construction and the existing roadway from both east-bound and west-bound directions.

The Project would replace the existing one-lane bridge with a new, standard width, two-lane, multi-span, continuous reinforced concrete slab bridge, including replacing/reconstructing the approaching roadway to transition between the new construction and the existing roadway. In addition, two potential staging areas are proposed. One is located on the west side of CR 306 north of Grindstone Creek and the other at the northeast corner of CR 306 and CR 305. The proposed alignment would tie into CR 306, 20 feet (ft.) south of the existing intersection. The CR 305 east approach would conform back to the existing road section 450 ft. east of Watson Creek.

The new roadway geometrics would bring the alignment up to current Caltrans and AASHTO design standards. The new bridge would be located 45 ft. to 50 ft. downstream (south) of the existing bridge location with a more favorable skew angle to the creek with respect to hydraulics and seismic design. As a result of the Project improvements, the new bridge would increase the width of the current bridge from 19 ft. to 32 ft. to safely accommodate two-way travel. Traffic would be maintained through the construction area using the existing west approach roadway and existing bridge. The east approach roadway would be detoured to the north, immediately adjacent to the existing road, to allow the contractor to utilize the existing road for haul activities and reduce phasing and traffic staging complications associated with constructing the new approach roadway under traffic. The detour road profile would generally follow existing grade.

A Phase I (i.e., surface) archaeological survey of the Area of Potential Effects (APE) conducted by Pacific Legacy in June 2019 was negative for archaeological resources (DiMaggio 2020). However, the geomorphic setting of the APE indicates that there is a high potential for buried archaeological deposits. Because these archaeological materials are unlikely to be identified through standard

pedestrian surface survey, an XPI study is the best means to accomplish the objective of determining the presence or absence of buried cultural deposits within the APE.

1.1.1 Regulatory Requirements

Local assistance funding, approval, or assistance to the County through Caltrans for activities that may affect historic properties constitute an "undertaking" subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966. A good faith effort to identify cultural resources in the APE is necessary for the County/Caltrans to comply with their obligations under Section 106 and its implementing regulations found at 36 CFR 800.4(c)(1).

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA). The Section 106 PA stipulates that Caltrans shall identify historic properties that may be within an undertaking's APE in accordance with 36 CFR § 800.4(a)(2-4) and 800.4(b).

Stipulation VIII of the Section 106 PA governs evaluation of potential historic properties in order to determine whether a site or portions of a site within the APE contain data that would contribute towards its potential National Register of Historic Places (NRHP) eligibility. In addition, the project is subject to state historic preservation laws and regulations set forth in the California Environmental Quality Act (PRC§21000 et seq.).

To assist in compliance with the regulatory requirements, Pacific Legacy was retained by Stantec Consulting Services Inc. (Stantec) on behalf of the County to perform the present XPI investigation of the APE to identify any historic properties located therein.

1.1.2 Area of Potential Effects

The APE is an irregularly shaped corridor with maximum dimensions of roughly 329 meters (m) (1080 ft) east to west and 178.3 m (585 ft) north to south (Figure 2). It extends from west of the intersection of CR 305 and CR 306 beyond the Watson Creek Bridge. The APE is 6.2 acres (2.5 hectares) and encompasses all possible project-related activities including the new road alignment and staging areas. The vertical APE includes all ground disturbances for the new roadway 0.6 m (2 ft), installation of the bridge abutments (1.5 m [5 ft]), and 24-inch CIDH piles for the bents (7.0 m [23 ft]).

1.2 MANAGEMENT OBJECTIVES

Given the potential for buried prehistoric archaeological deposits in the APE, the objectives of the XPI investigation are limited primarily to determining if archaeological deposits lacking surface manifestation are buried within the APE. A secondary objective is to confirm and corroborate previous determinations that the area has potential to contain buried archaeological deposits (DiMaggio 2020; Meyer and Rosenthal 2008). As such, it is an extension of the survey and identification effort in an area of high sensitivity where recent sediment deposition may have buried archaeological deposits, per Chapter 5, Section 5.4.7 of the Caltrans (2021) *Standard Environmental*

Reference, Vol. 2: Cultural Resources. Archaeological deposits are defined as those that require further investigation (i.e., Phase II) per the Section 106 PA. The results of the XPI investigation would thus assist the County/Caltrans in determining if future archaeological studies are necessary per the Section 106 PA.

1.3 INVESTIGATION ADMINISTRATION

1.3.1 Dates of Fieldwork and Personnel

Fieldwork for the XPI investigation consisted of exploratory trenching and was conducted from January 11–12, 2022 by Pacific Legacy’s Principal Geoarchaeologist Graham Dalldorf, M.A., with assistance from Staff Geoarchaeologist Heidi Klingler, B.S. Amy Kovak, M.A., serves as Project Manager. Anthony Pacheco of Pacheco Backhoe Service based in Willows, California operated the backhoe that was used to excavate the trenches for the XPI investigation. Although repeated attempts were made to contact tribal groups and solicit participation of a tribal monitor, no tribal monitor was present during the fieldwork.

1.3.2 Land Ownership, Permits, and Permission

Excavations conducted for the XPI investigation were located within the APE defined for the Project. All excavations were either within the County Right-of-Way (ROW) or Assessor’s Parcel Number 025-090-001, for which a Permit to Enter had previously been signed by the previous owner George F. Pride. Due to a recent change in ownership, a new Permit to Enter, signed by the current owner Daryl Pride, was obtained at the Project site on January 11, 2022. The executed contract with Stantec constitutes the encroachment permit to work within the County ROW.

Pacific Legacy notified USA North of an underground service alert (Tickets X134101127 and X134101077) related to the XPI excavations in the Project area prior to the fieldwork. USA North member utilities did not identify any utilities near the exploratory trenches.

1.3.3 Native American Coordination

Glenn County is responsible for initiating and continuing consultation with Native American groups regarding the Project, and for identifying a tribal monitor for the XPI fieldwork excavations. Previous consultation efforts for the Project are reported in the cultural resources inventory report (DiMaggio 2020). Despite repeated attempts by Pacific Legacy to contact tribal groups for monitoring services during the XPI fieldwork, no such services could be obtained. Pacific Legacy maintained a consultation log of Native American individuals and groups contacted during the course of the XPI investigation, including when and how they were contacted, and any concerns voiced. The consultation log is provided in Appendix B.

1.3.4 Curation Agreements

The XPI investigation was designed as a non-collection study with the goal of determining the presence or absence of archaeological deposits within areas of proposed subsurface impact in the APE. Any archaeological material encountered during the course of the XPI investigation was to be buried in the trench from which it was recovered, after in-field analysis, per the XPI proposal (Kovak 2021).

2.0 BACKGROUND CONTEXT

XPI studies are limited, and their management objectives are focused on determining the presence or absence and extent of cultural deposits. Because the Caltrans (2021) Standard Environmental Reference, Vol. 2: Cultural Resources, Exhibit 5.3 guidance eschews lengthy XPI reports that provide extensive background discussion, the following provides a focused framework for understanding how deeply archaeological deposits may be buried in the APE. For a thorough treatment of late Quaternary landscape evolution in the foothills of the eastern North Coast Ranges and its impact on the archaeological record, the reader is referred to the Caltrans District 3 geoarchaeological overview (Meyer and Rosenthal 2008). Background information regarding the prehistory, ethnography, and history of the project area are provided in the ASR (DiMaggio 2020).

2.1 ENVIRONMENTAL SETTING

The Project is situated in rural north-central Glenn County on Watson Creek just north of its confluence with Grindstone Creek. The APE sits within the interface between the Sacramento Valley and eastern foothills of the North Coast Ranges. Physiographically, the vicinity is characterized by the steep slopes of the Northern Coast Ranges to the west, and the gently rolling hills and flat Sacramento Valley to the east and south. The Northern Coast Ranges in the area were formed by an uplifted Franciscan basement and overlain by Cretaceous sedimentary rock of the Great Valley sequence (Norris and Webb 1990:398). The Sacramento Valley is formed primarily from Quaternary-age alluvium. Jennings et al. (1977) map the Project area as Quaternary alluvium and marine deposits that date from the Pliocene to Holocene.

2.1.1 Late Quaternary Geology, Geomorphology, and Soils

The Project area is mapped at a regional scale (1:100,000) by Blake et al. (1992) as consisting of Holocene-age stream channel deposits (Qsc). The Qsc deposits are described as gravel, sand, and silt deposited in open, active stream channels lacking vegetation. The Qsc deposits are transported under modern hydrologic conditions, and are light tan and gray in appearance. In the Project APE, these Qsc deposits are transported by Watson and Grindstone Creeks, which are incised into much older alluvial deposits forming elevated terraces to the north and west. West of the Project APE, the elevated terrace is mapped as the Pleistocene-aged Upper Riverbank Formation (Qru). North of the Project APE, the elevated terrace is mapped as the Pleistocene-aged Lower Modesto Formation (Qml). The Qru and Qml deposits are not described here further as they are located outside of the Project APE.

Soil units present in the project area as part of the Soil Survey Geographic (SSURGO) mapping (USDA NRCS 2021) support these age assignments based on their relative lack of horizon development and that they are formed in geologically young alluvium. Soil map units in the project area from west to east are:

- Gravelly Alluvial Lands (unnamed soil series): located on the floodplain on the western side of the bridge above the active channel, this map unit is modeled to be latest Holocene in age (Meyer and Rosenthal 2008:B6).

- Riverwash (unnamed soil series): located in the active channel both under and southwest of the bridge (i.e., south of CR 305), this map unit is modeled to be historical to modern in age (Meyer and Rosenthal 2008:B11).
- Orland-Cortina Complex: located on the east side of the bridge on the first low terrace above the active channel, this map unit is modeled to be latest Holocene in age (Meyer and Rosenthal 2008:B9).

2.1.2 Potential for Buried Archaeological Deposits

Meyer and Rosenthal (2008) provide a thorough overview of the potential for buried archaeological deposits in Caltrans District 3 which includes the Project APE. Because the Project area straddles Watson Creek just north of its confluence with Grindstone Creek, landforms within the APE all consist of Holocene alluvium, but are of slightly different ages. The landforms, ranging from youngest to oldest, are the active channel, the floodplain, and low terraces. Meyer and Rosenthal (2008:115) have modeled these landforms to be mostly latest Holocene to historic in age, although the scale of their map makes differentiating the various landforms and their respective ages difficult. Inasmuch as these landforms are depositional and formed in the latest Holocene, they can be considered to have a moderate to high sensitivity for buried archaeological resources spanning the entire period of human occupation in the region (Meyer and Rosenthal 2008:161). However, the active channel may be considered less sensitive for intact buried deposits because it is an erosional landform on account of its dynamic and high energy geomorphic setting. In summary, the APE outside of the active channel has been previously modeled to have a high potential for buried archaeological resources.

3.0 SCOPE OF WORK

The scope of work for the present XPI investigation was designed to achieve the objectives articulated above in Section 1.2. This was accomplished with XPI field efforts that involved excavation and inspection of eight exploratory trenches to confirm the presence or absence of subsurface archaeological deposits. All work was carried out under an experienced and professionally qualified archaeological Field Director who meets the Secretary of Interiors standards set forth at 36 CFR Part 61.

3.1 EXTENDED PHASE I FIELDWORK

3.1.1 Exploratory Trenching

Pacific Legacy contracted with Pacheco Backhoe Service of Willows, California, to mechanically excavate eight trenches in the APE to search for archaeological deposits. The trenches were excavated by a Deere 310SL tractor-mounted backhoe at an approximate interval spacing of 30 m (98.4 ft) to 50 m (164 ft) in the APE. Such trench spacing has been recommended as an appropriate sampling interval in areas of high and very high sensitivity (Meyer 2013:168) such as the Project APE.

Backhoe trenches measured 0.6 m (2.0 ft) wide and ranged in length from 1.7 to 4.9 m (5.6 to 16.1 ft). Trenches were ramped at one end to allow ingress/egress, with maximum depths ranging from 1.8 to 2.4 m (5.9 to 7.9 ft). Roughly 15.7 m³ of material was excavated from the trenches, and trench spoils were closely monitored for archaeological deposits. Per California OSHA regulations, no project personnel were allowed to enter sections of an exploratory trench deeper than 1.5 m (5.0 ft) without proper shoring or benching. Where appropriate and safe, at depths up to 1.5 m (5.0 ft), trench sidewalls were also closely examined for cultural materials. When the trench depth surpassed 1.5 m (5.0 ft), the spoils pile continued to be closely examined for archaeological material and changes in soil stratigraphy. Where buried soils were observed, samples of trench spoils were passed through 1/4-inch mesh screen to search for cultural materials. Selected samples consisting of 3 to 5 five-gallon buckets of any suspected buried soils were screened through 1/4" wire mesh to determine presence or absence of cultural material. The location of each trench was recorded with a Trimble GeoXT GPS unit. Digital photographs of trench locations, trench sidewalls, and trenching operations were taken. After documentation, attempts were made to return the excavation area to pre-excavation appearance and grade, including backfilling and compaction. About 44 person-hours were expended during the field portion of the XPI study, including travel and mobilization/demobilization time.

3.1.2 Soil Stratigraphic Identification and Description

The natural and cultural stratigraphy (if present), of each trench was identified by carefully examining the deposits exposed in the sidewalls and spoils of the subsurface exploratory trenches. Soil stratigraphic units (strata) were identified on the basis of physical composition, superposition, relative soil development, and/or textural transitions. In the field, each stratum was assigned a Roman numeral (I, II, III, etc.) beginning with the oldest or lowermost stratum identified in each trench.

The master soil horizons were designated by upper-case letters (O, A, B, C, or R) and preceded by Arabic numerals (2, 3, etc.) when the horizon is associated with a different stratum (i.e., 2Cu);

number 1 is not labeled in such a sequence. The upper part of a complete soil profile is usually called the A-horizon, with a B-horizon being the zone of accumulation in the middle of a profile, and the C-horizon representing the relatively unweathered parent material near the base of a profile. Lower-case letters were used to designate subordinate soil horizons as indicated below:

Horizon suffix	Description
b	Buried horizon at the location it was described (not used with C-horizons)
ox	Residual pedogenic sesquioxide accumulation
p	Zone of artificial fill or disturbance (e.g., plowing)
w	Weak color or structure within B-horizon

Combinations of these numbers and letters indicate the important characteristics of each major stratum and soil horizon; they are consistent with those outlined by Birkeland (1999), Birkeland et al. (1991), and Schoeneberger et al. (2012). Detailed notes regarding the soil stratigraphy of each trench excavated for the XPI study can be found in Appendix A.

Buried soils or paleosols representing formerly stable ground surfaces were identified in the field on the basis of color, structure, horizon development, bioturbation, lateral continuity, and the nature of the upper boundary (contact) with the overlying deposit (Birkeland et al. 1991). The results of this analysis are critical for developing an understanding of the timing and extent of landscape change in the Project APE. Absent positive identification of substantial archaeological deposits, such information allows for certain areas or depths (e.g., Pleistocene landforms and deposits) to be determined non-sensitive for buried archaeological deposits, essentially confirming the absence in these areas, because they pre-date human occupation of the area. Such information can also guide monitoring efforts during construction if the age and depth of buried paleosols are known.

4.0 STUDY RESULTS

The present XPI study involved the excavation of eight exploratory trenches within the Project's APE on both sides of Watson Creek Bridge, and the examination of an exposed cutbank roughly 100 m (328 ft) north of the Project's APE from January 11 to 12, 2022. The following subsections summarize the results of the exploratory trenching efforts and describe the soil stratigraphy of the APE in detail based on landform type and age. The locations of the trenches and cutbank and profiles of representative trenches are shown in Figures 4 and 5, respectively.

4.1 EXPLORATORY TRENCHING

The eight exploratory trenches in the APE were mechanically excavated by a Deere 310SL backhoe operated by Anthony Pacheco of Pacheco Backhoe Services. Approximately 15.7 m³ of material was excavated from the trenches and inspected for archaeological materials, for an average of about 1.96 m³ of excavated soil per trench. Barring modern refuse, no cultural materials were identified in the trenches during the XPI investigation. In addition to the eight exploratory trenches, the present study examined an exposed cutbank located approximately 100 m (328 ft) north of the Project's APE. Table 1 lists the characteristics of each trench. Detailed trench and cutbank soil stratigraphic descriptions are provided in Appendix A.

Table 1. Exploratory Trench Summary.

Trench	Dimensions l x w (m)	Maximum Depth (mbs)	Estimated Volume (m ³)*	Findings
1	2.8 x 0.6	2.3	3.6	No cultural material
2	1.8 x 0.6	1.8	1.9	No cultural material
3	4.6 x 0.6	1.8	5.0	No cultural material
4	4.7 x 0.6	2.4	6.8	No cultural material
5	4.9 x 0.6	1.9	5.6	No cultural material
6	3.4 x 0.6	1.4	2.9	No cultural material
7	1.7 x 0.6	1.8	1.8	No cultural material
8	3.5 x 0.6	1.8	3.8	No cultural material
Total	-	-	15.7	-

*Total Volume = 15.7 m³ (estimated volume, as trenches were ramped at one end).

4.2 SOILS AND STRATIGRAPHY

The present XPI investigation revealed coarse-grained alluvium (i.e., coarse sand, coarse gravel, river cobbles) marked by weak soil development. The source of the alluvium is both Watson and Grindstone Creeks. In addition, artificial fill ranged between 0 and 180 centimeters below surface (cmbs). At least four strata are present in the Project APE, which are described in detail below. Soil stratigraphic profiles and photographs are shown in Figure 5.

4.2.1 Older Floodplain Terraces

The present study identified intact older floodplain terraces marked by weak soil development on both sides of Watson Creek Bridge. These deposits represent the most stable portion of the

floodplain, and based on the degree of soil development, are interpreted as being late Holocene in age (<4,000 years old). As demonstrated in Trench 4, these deposits are underlain by the Great Valley Sequence of California, which formed between the Late Jurassic and Cretaceous Period. There are four strata documented in this landform, as depicted in Trench 4 (Figure 5).

Stratum I

Stratum I is characterized by dark grey decomposing bedrock of the Great Valley Sequence of California. Stratum I was identified in Trench 4 between 222 and 240 cmbs, and along an exposed cutbank to the west of the trench. Fossil shells were observed within the deposit, confirming the stratum's advanced antiquity.

Stratum II

Stratum II is characterized by coarse-grained (coarse sand, coarse gravel, river cobbles) alluvium lacking soil development. Depths to Stratum II range from 84 cmbs in Trench 1 and Trench 8 to 200 cmbs in Trench 4 and the stratum ranges in thickness from 22 cm in Trench 4 to 96 cm in Trench 8. Stratum II consists of a single C horizon, as typified in Trench 4 (Figure 5). The color associated with Stratum II is dark gray.

Stratum III

Stratum III is characterized by fine-grained (loam, silt loam, silty clay loam, clay loam) alluvium exhibiting weak soil development. Depths to Stratum III range from 0 cmbs in Trench 8 to 83 cmbs in Trench 4 and the stratum ranges in thickness from 7 cm in Trench 1 to 117 cm in Trench 4. Stratum III exhibits a profile of 2Ab/2C in Trench 1, 2Ab/2BCKb/2C in Trench 4, and A/C in Trench 8. Colors associated with Stratum III include very dark gray, dark gray, dark grayish brown, brown, and dark yellowish brown. Based on its weak soil development, Stratum III is interpreted as a latest Holocene deposit.

Stratum IV

Stratum IV consists of loams intermixed with angular gravel interpreted as a layer of artificial fill (i.e., an Ap horizon). Stratum IV was only identified in Trench 1 between 0 and 77 cmbs.

4.2.2 Modern/Historic Era Floodplain Deposits

The majority of trenches (Trenches 2, 5, 6, and 7) and the exposed cutbank represent modern/Historic Era floodplain deposits associated with Watson and Grindstone Creeks. There are two strata documented in this landform, as depicted in Trench 6 (Figure 5).

Stratum I

Stratum I is characterized by gray coarse-grained (coarse sand, coarse gravel, river cobbles) alluvium lacking soil development. Depths to Stratum I range from 20 cmbs in the exposed cutbank to 103 cm in Trench 5, and the stratum ranges in thickness from 130 cm in the cutbank to 80 cm in Trench 6. Stratum II consists of a C horizon, as exhibited in Trench 6 (Figure 5).

Stratum II

Stratum II consists of loams intermixed with sand, gravel, and river cobbles and is interpreted as a layer of artificial fill (i.e., an Ap horizon) that was likely procured from nearby riverwash deposits. The artificial fill ranges from the surface to depths of up to 180 cmbs at its thickest point in Trench 2 in the western portion of the Project APE.

4.3 CULTURAL DEPOSITS

Although a buried paleosol (former surface) was identified in Trench 4, as noted above, no cultural materials were observed or recovered during the XPI investigations in the APE.

5.0 SUMMARY AND CONCLUSIONS

As part of the XPI investigation for the Project, eight exploratory trenches were excavated and inspected for cultural deposits. The exploratory trenches were located in the Project APE, focused in areas of proposed ground disturbance. The trenches were mechanically excavated using a tractor-mounted backhoe to a maximum depth of 2.4 m (7.9 ft), thus producing an estimated 15.7 m³ of soil that was inspected for cultural materials. Aside from modern refuse, no cultural artifacts or deposits were observed in any of the trenches. However, one buried soil of limited lateral extent was identified in trench sidewalls and spoils in the northwestern portion of the APE (Trench 4), confirming a moderate to high sensitivity for buried archaeological resources in that area. These buried soils are characterized by weakly developed buried AC horizons that are interpreted as being late Holocene in age and available for human occupation for a relatively brief period of time as evidenced by the lack of soil development. Apart from this buried soil, coarse alluvium of extremely gravelly sand and loamy sand that lacked any soil development was observed in a majority of the Project APE. The coarse gravelly alluvium, although of geologically recent deposition, is unlikely to contain any intact archaeological deposits, and none were observed.

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7.0 PREPARER'S QUALIFICATIONS

Graham Dalldorf has an M.A. in Geography from the University of Oregon. He is a member in good standing with the Register of Professional Archaeologists. Mr. Dalldorf has over 25 years of experience in California archaeology and geoarchaeology. He is the Principal Geoarchaeologist with Pacific Legacy in the El Dorado Hills office. Heidi Klingler has a B.S in Anthropology and is currently working on her M.A. with a specialization in geoarchaeology.

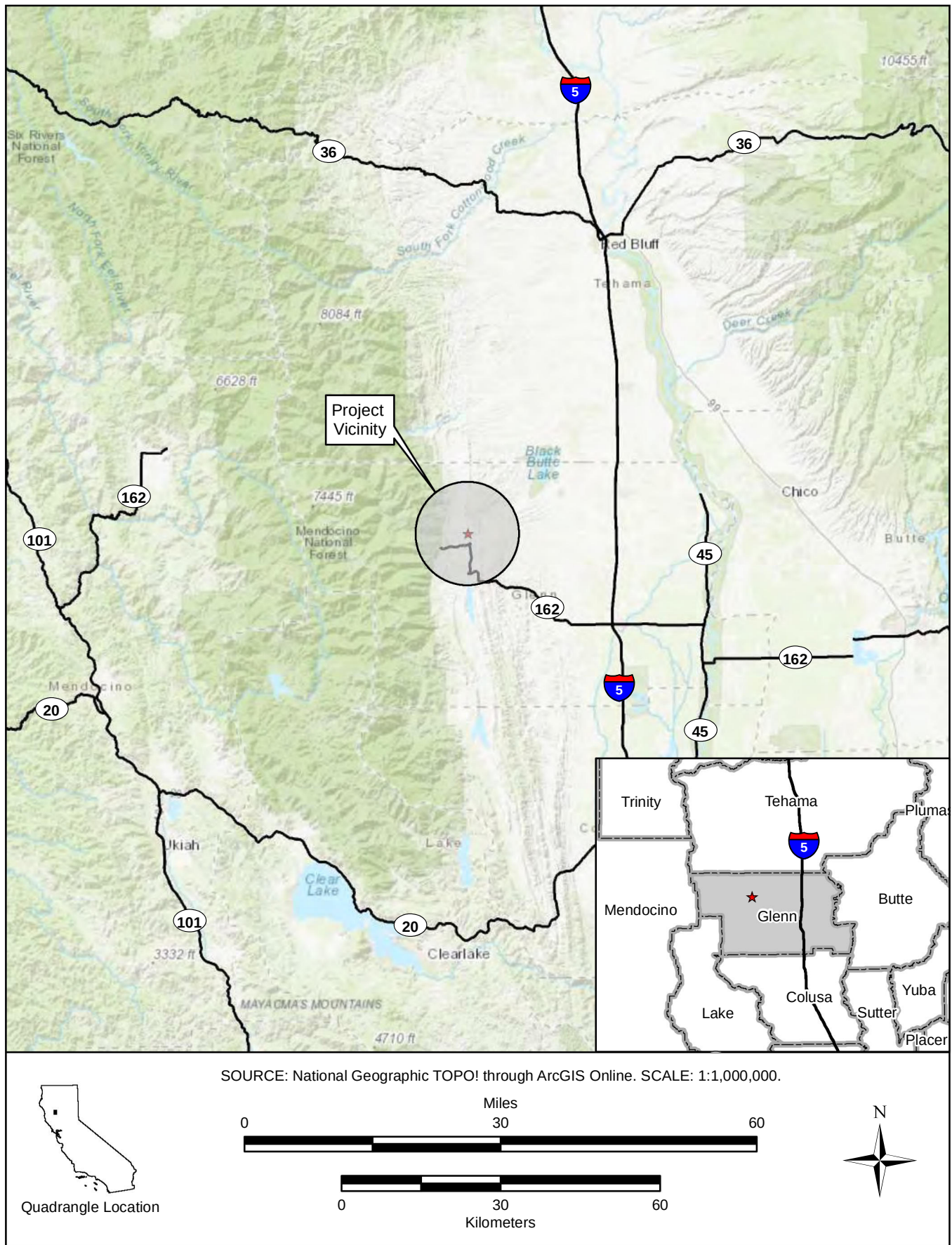


Figure 1. Project Vicinity Map.

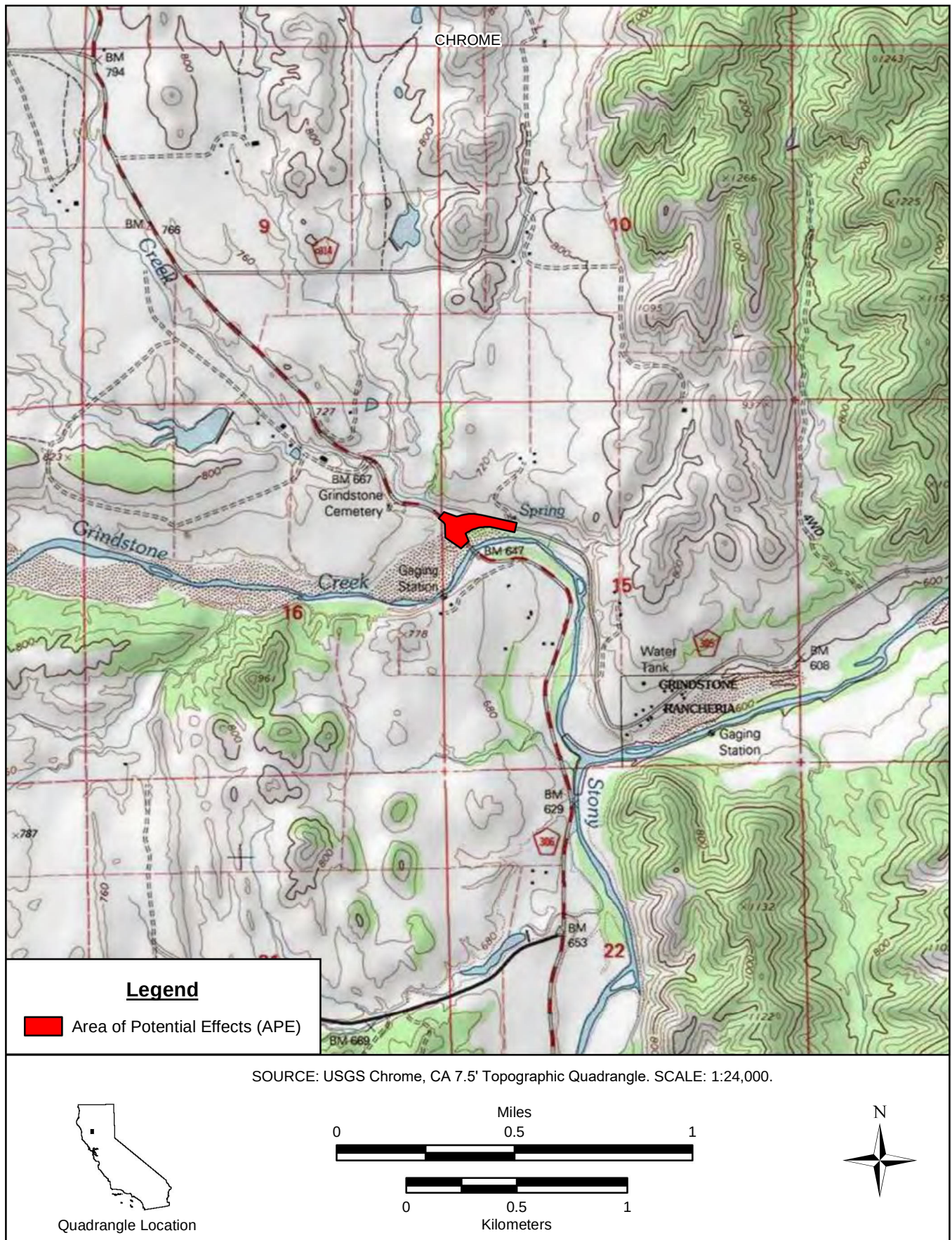


Figure 2. Project Location Map.



Figure 3. Overview Photographs of Trenching Operations at Trench 2 (Above) and Trench 4 (Below).

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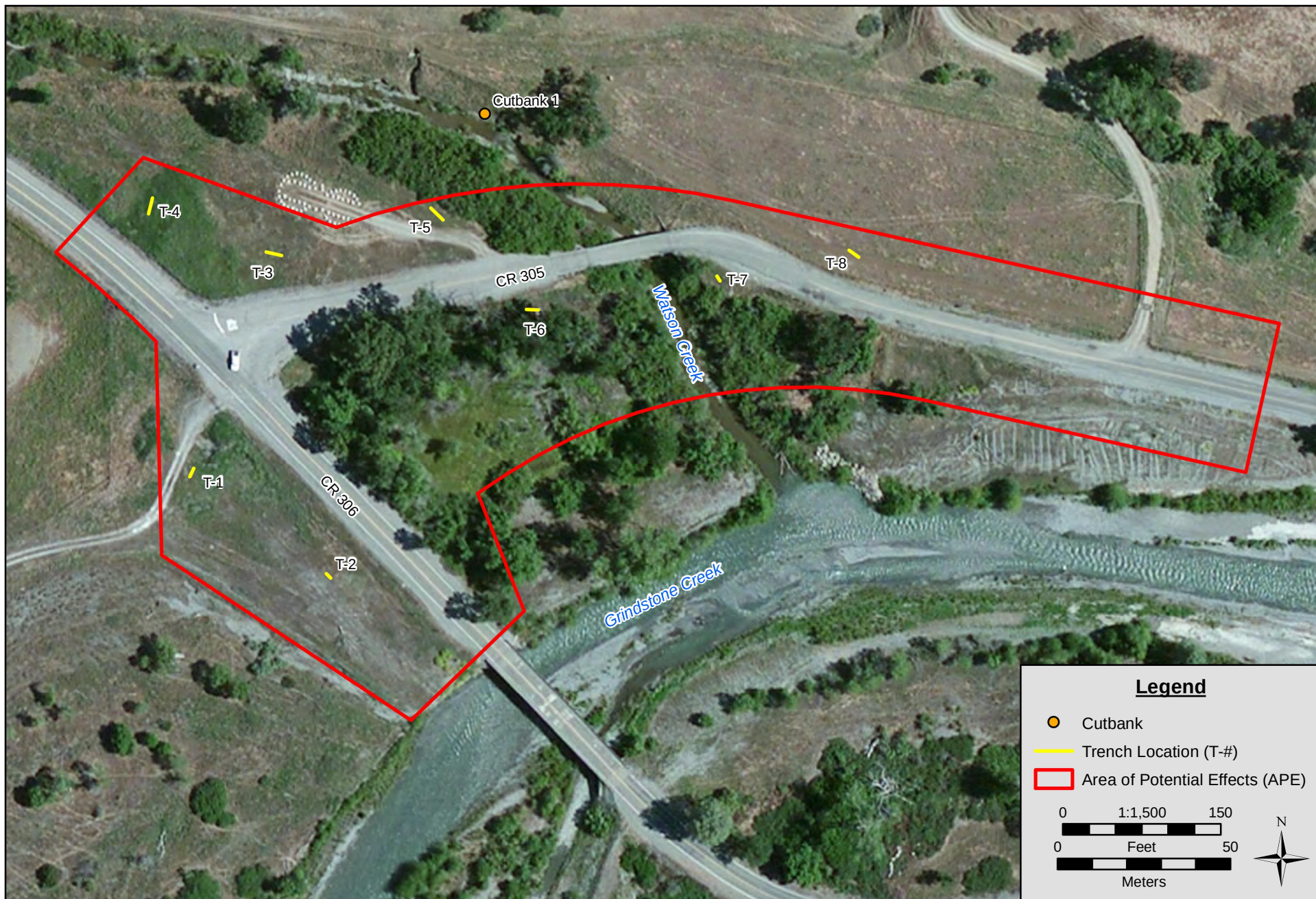


Figure 4. Exploratory Trench Locations.

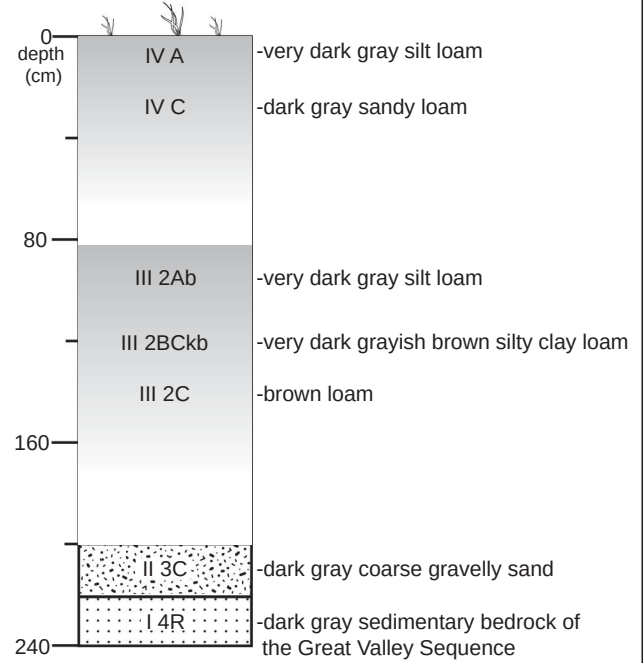
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Trench 4 North Wall
(0-240 cmbs)



Trench 4
Generalized Profile



Trench 6 West Wall
(0-140 cmbs)



Trench 6
Generalized Profile

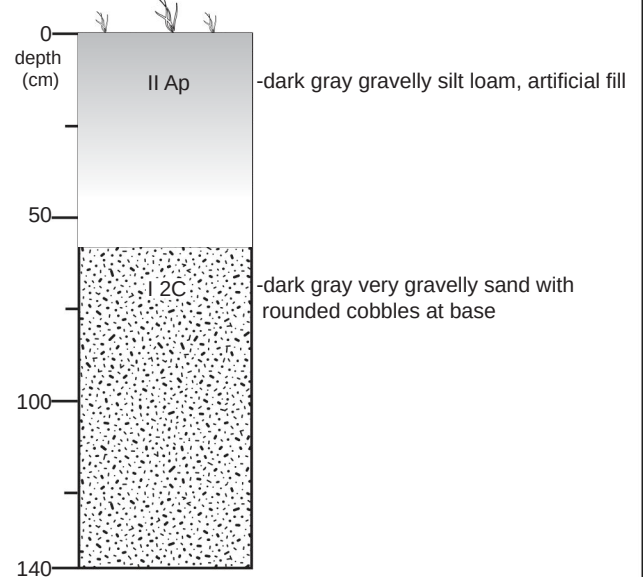


Figure 5. Photographs and Generalized Profiles of Soil Stratigraphy at Trench 4 (top) and Trench 6 (bottom).

APPENDIX B

Native American Consultation Log

PACIFIC LEGACY NATIVE AMERICAN CONSULTATION LOG

County Road 305 over Watson Creek Bridge Replacement Project Federal Project No. BRLO-5911 (056) Correspondence by Pacific Legacy, Inc. (Gia DiMaggio and Amy Kovak)

Group/ Organization/ Individual Contacted	Date of Initial Consultation Letter/Email	Follow-up Phone Call	Response Received	Summary of Consultation
Native American Heritage Commission (NAHC)	Letter sent 1/18/2019	None	1/24/2019	The Sacred Lands File search did identify sacred lands within the buffer around the project area. They provided a list of four individuals with potential information or interests in the project.
Estom Yumeka Maidu Tribe of the Enterprise Rancheria, Glenda Nelson, Chairperson	Letter sent 3/19/2019	4/2/2019	None	Letter to begin informal Section 106 and NEPA Consultation. Left message on the Tribe's main voicemail.
Grindstone Rancheria of Wintun-Wailaki, Ronald Kirk, Chairperson	Letter sent 3/19/2019	4/2/2019 4/11/2019	4/27/2019	Letter to begin informal Section 106 and NEPA Consultation. Left message on his voicemail. Received a call back from the secretary indicating that they had no issue with the project. Received a second call back from Mr. Kirk himself, who explained that he had no concerns with the project.
Mechoopda Indian Tribe Dennis Ramirez, Chairperson	Letter sent 3/19/2019	4/2/2019	4/3/2019	Letter to begin informal Section 106 and NEPA Consultation. Left message on his voicemail. Received a call back deferring to the Grindstone Indian Rancheria.
Paskenta Band of Nomlaki Indians, Andrew Alejandre, Chairperson	Letter sent 3/19/2019	4/2/2019	4/3/2019	Letter to begin informal Section 106 and NEPA Consultation. Left a message on his voicemail. Received a call back explaining that the APE was outside of their territory.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365)	11/24/2021	None	Called main office and left a voice mail notifying the tribe of the Extended Phase I investigation planned for 12/14-12/16/2021 and asked if they would be interested in providing a tribal monitor.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365)	12/3/2021	None	Spoke with the receptionists who took a message with Pacific Legacy contact information. She said that the person in charge of tribal monitoring would return my call. No call was received.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365)	12/9/2021	None	Called the main office and left a message that the Extended Phase I investigation was delayed due to weather. We are rescheduling the XPI for January and would still like to have a tribal monitor.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365)	12/21/2021	None	Attempted to call the call the main line. The phones were not working ("your call cannot be completed at this time"), and I could not get through to leave a message.

Group/ Organization/ Individual Contacted	Date of Initial Consultation Letter/Email	Follow-up Phone Call	Response Received	Summary of Consultation
Grindstone Rancheria of Wintun-Wailaki, Ronald Kirk, Chairperson	Email (ronaldkirk196 3@gmail.com) 12/21/2021	-	None	Sent Chairperson Kirk an email notifying him of the Extended Phase I investigation and requesting a tribal monitor.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365) 1/4/2022	-	None	Attempted to call the call the main line. The phones were not working, and I could not get through to leave a message.
Grindstone Rancheria of Wintun-Wailaki, Ronald Kirk, Chairperson	Email (ronaldkirk196 3@gmail.com) 1/4/2022	-	None	Sent Chairperson Kirk an email notifying him of the Extended Phase I investigation and requesting a tribal monitor.
Grindstone Rancheria of Wintun-Wailaki	Phone call (530-968- 5365) 1/10/2022	-	None	Attempted to call the call the main line. The phones were not working, and I could not get through to leave a message.