Cultural Resources Inventory Report for the Big Chico Creek Erosion Repair Project –Manzanita Avenue and Vallombrosa Avenue

City of Chico, Butte County, California

Prepared for:

CITY OF CHICO
INC. 1872

US Army Corps of Engineers ®

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Cultural Resources Inventory Report for the Big Chico Creek Erosion Repair Project – Manzanita Avenue and Vallombrosa Avenue City of Chico, Butte County, California

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Archaeological and other cultural resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. This document contains sensitive information regarding the nature and location of archaeological sites which should not be disclosed to unauthorized persons.

Information regarding the location, character, or ownership of a historic resource is exempt from the Freedom of Information Act pursuant to 16 U.S.C 470w-3 (National Historic Preservation Act) and 16 U.S.C. §470hh (Archaeological Resources Protection Act). In addition, access to such information is restricted by law, pursuant to Section 6254.10 of the California State Government Code.

MANAGEMENT SUMMARY

The City of Chico Department of Public Works (City) proposes to address erosion at two bridge crossings over Big Chico Creek, located throughout the City of Chico, in Butte County, California. Severe winter storms in 2023 and 2024 brought heavy rains, strong winds, and thunderstorms that caused flooding, landslides, and mudslides throughout much of California, including Butte County. The heavy rains caused high creek flows that resulted in erosion at multiple sites along Big Chico Creek in the City of Chico. Erosion along the west bank of Big Chico Creek poses a growing risk of significant damage to nearby public infrastructure, including the surface of Vallombrosa Avenue and its adjacent pedestrian and bike path.

The Big Chico Creek Erosion Repair Project (Project) will address bank erosion and scour along Vallombrossa Avenue south of the intersection with Manzanita Avenue. The intersection is approximately 1.2 miles north of State Route 32. The Project is located just south of Hooker Oak Park.

As the Project will impact waters of the United States which are under jurisdiction of the United States Army Corps of Engineers (USACE), permitting through Clean Water Act will be required. Jurisdictional areas of the USACE include the Big Chico Creek. As federal permitting will be required through the USACE, these actions constitute undertakings subject to review under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470 *et seq*) and outlined at 36 CFR 800. Additionally, as the project is anticipated to receive grant funding from the United States Department of Agriculture (USDA), the Natural Resources Conservation Service (NRCS) will also act as a cooperating agency under NEPA. The City is acting as the lead agency under CEQA while USACE is acting as the lead agency under NEPA.

This document was prepared to assist in addressing potential impacts to cultural resources resulting from the proposed undertaking. Efforts to identify cultural resources in the Area of Potential Effects (APE) are detailed in this report and include background archival research, a search of site records and inventory reports on file at the Northeast Information Center (NEIC), of the California Historical Resources Information System (CHRIS) and a pedestrian surface survey. The NEIC records search yielded no cultural resources within the APE and identified ten resources within ½-mile.

No new indigenous, historic-era, or built environment resources were identified. The potential for the Project to impact cultural resources which would qualify as either a historical resource under CEQA or a historic property under NHPA, is *low*.

A finding of no historic properties affected is recommended for this undertaking, pursuant to 36 CFR § 800.4(d)(1) and no significant impact to historical resources or Tribal Cultural Resources under CEQA, per Guidelines 15064.5.

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1.0 INTRODUCTION

The City of Chico Department of Public Works (City) proposes to address erosion at a site along Big Chico Creek, located within the City of Chico, in Butte County, California (**Figures 1 and 2**). As the Project will impact waters of the United States which are under jurisdiction of the United States Army Corps of Engineers (USACE), this action constitutes an undertaking pursuant to Section 301(7) of the National Historic Preservation Act (NHPA) (16 U.S.C. 470) as amended. Additionally, permitting through the Clean Water Act will be required. Jurisdictional areas of the USACE include the Big Chico Creek. USACE, as a federal agency, will be responsible for compliance with Section 106 of the NHPA during the permitting process and is the lead agency under NEPA. The City is acting as the lead agency under the California Environmental Quality Act (CEQA). Additionally, as the project is anticipated to receive grant funding from the United States Department of Agriculture (USDA), the Natural Resources Conservation Service (NRCS) will also act as a cooperating agency under NEPA.

Severe winter storms in 2023 and 2024 brought heavy rains, strong winds, and thunderstorms that caused flooding, landslides, and mudslides throughout much of California, including Butte County. The heavy rains caused high creek flows that resulted in erosion at multiple sites along Big Chico Creek in the City of Chico. Erosion along the west bank of Big Chico Creek poses a growing risk of significant damage to nearby public infrastructure, including the surface of Vallombrosa Avenue and its adjacent pedestrian and bike path.

The Project will address bank erosion at a site along Big Chico Creek approximately 1.1 miles north of State Route 32, and just south of the intersection of Manzanita Avenue and Vallombrosa Avenue.

1.1 Project Description

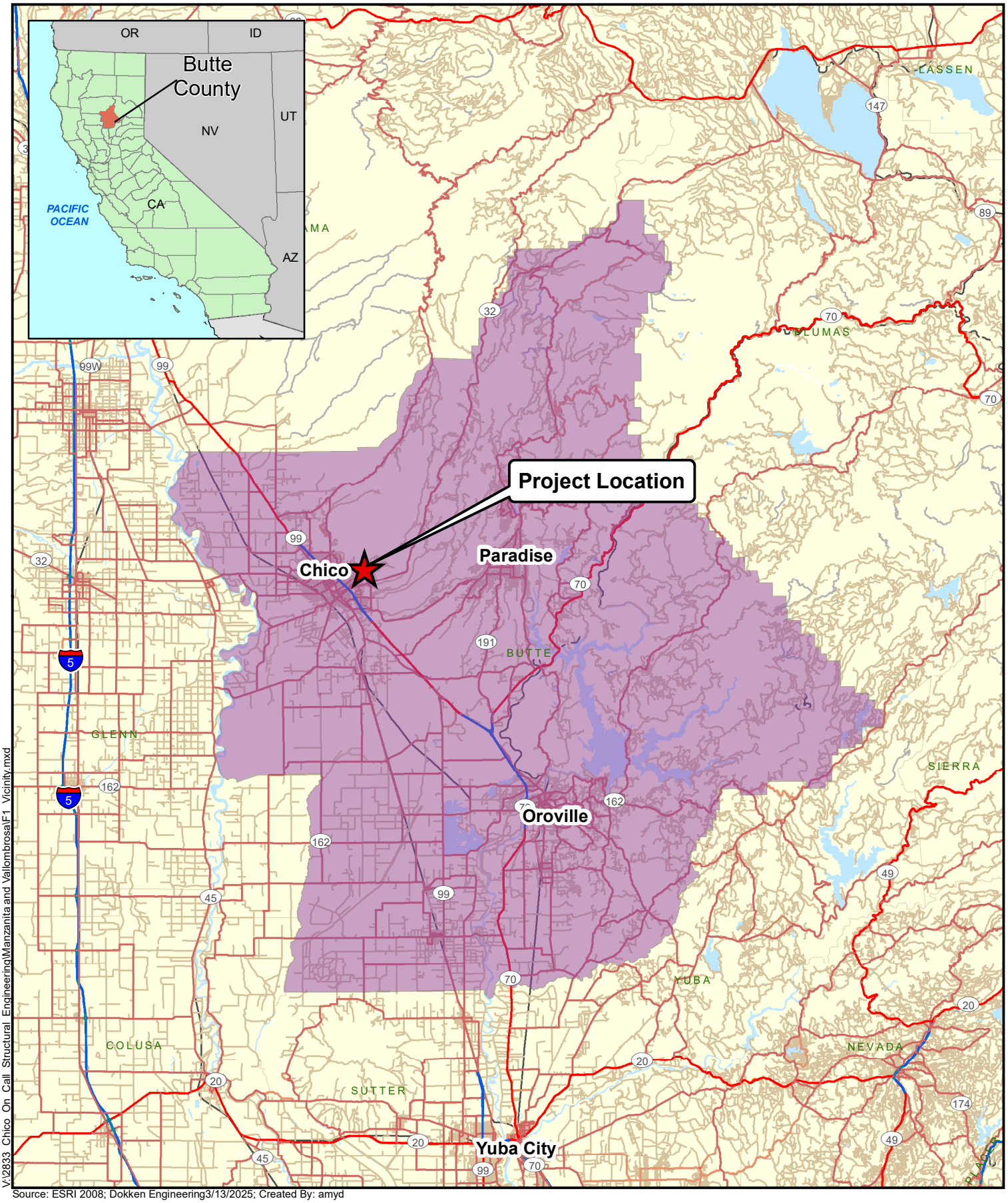
The City proposes to repair the erosion and fill in the undercut on the west bank of the creek using rock slope protection (RSP). The undercut cave will be collapsed and regraded to remove any safety risks to the public. A total of 187 linear feet of RSP will then be installed along the west bank to reinforce the reconstructed creek banks and prevent further erosion. All ground disturbing activities will take place within existing City right-of-way.

1.2 Project Location

The Project is located in Butte County situated along Big Chico Creek in the City of Chico. The Project resides within the Richardson Springs, California U.S. Geological Survey 7.5-minute quadrangle. The Project is located within Township 22 North, 2 East, Section 18.

1.2.1 Description of the Area of Potential Effects

The APE is defined to include all ground disturbing activities and equipment staging required for the installment of rock slope protection along the western bank of Big Chico Creek to prevent further erosion (**Figures 3**). The APE is approximately 0.61 acres.

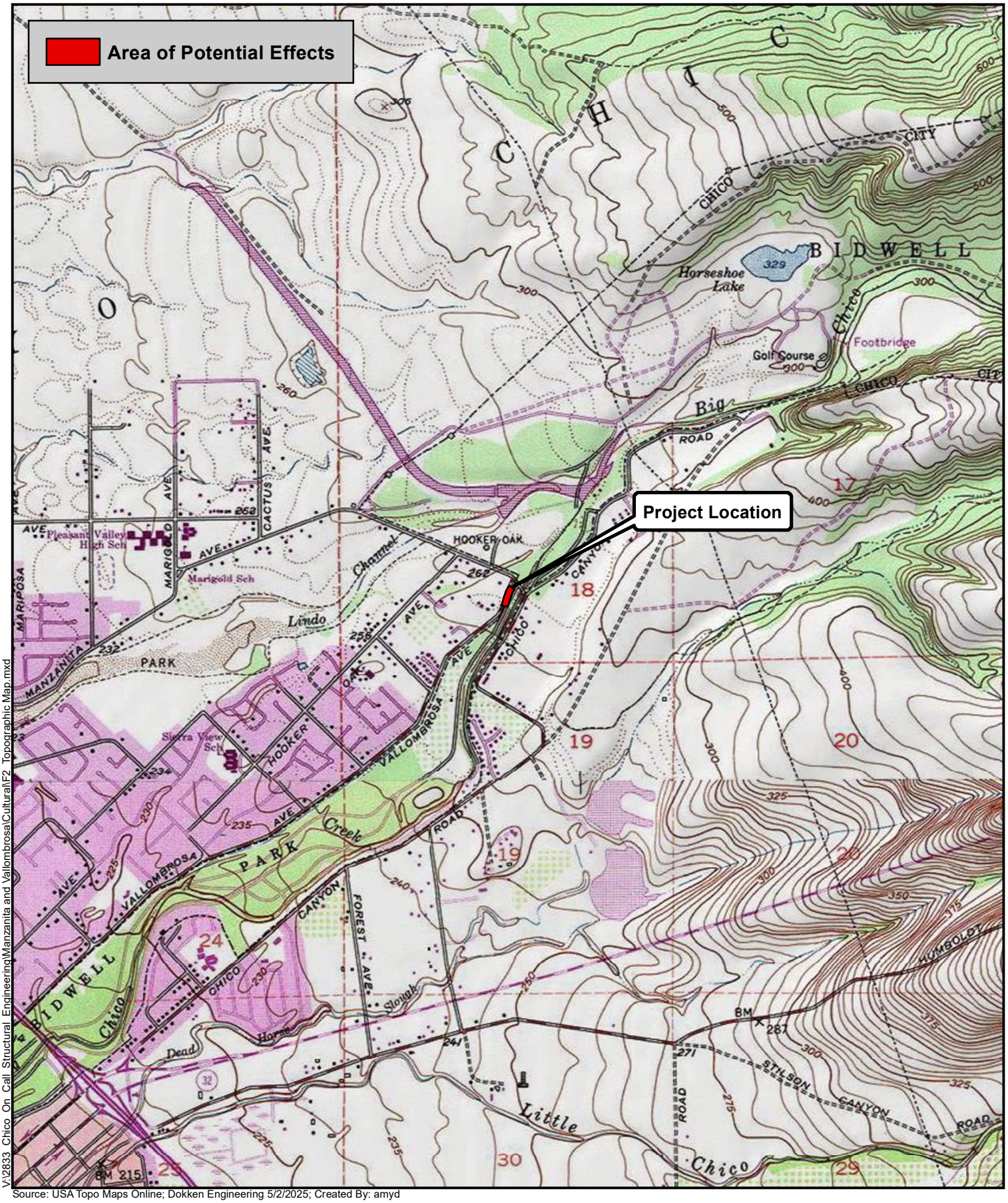


V:\2833_Chico_On_Call_Structural_Engineering\Manzanita and Vallombrosa\F1_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering3/13/2025; Created By: amyd

0 5 10 15 Miles

FIGURE 1
Project Vicinity
Big Chico Creek Erosion Repair Project - Manzanita Ave and Vallombrosa Ave
City of Chico, Butte County, California



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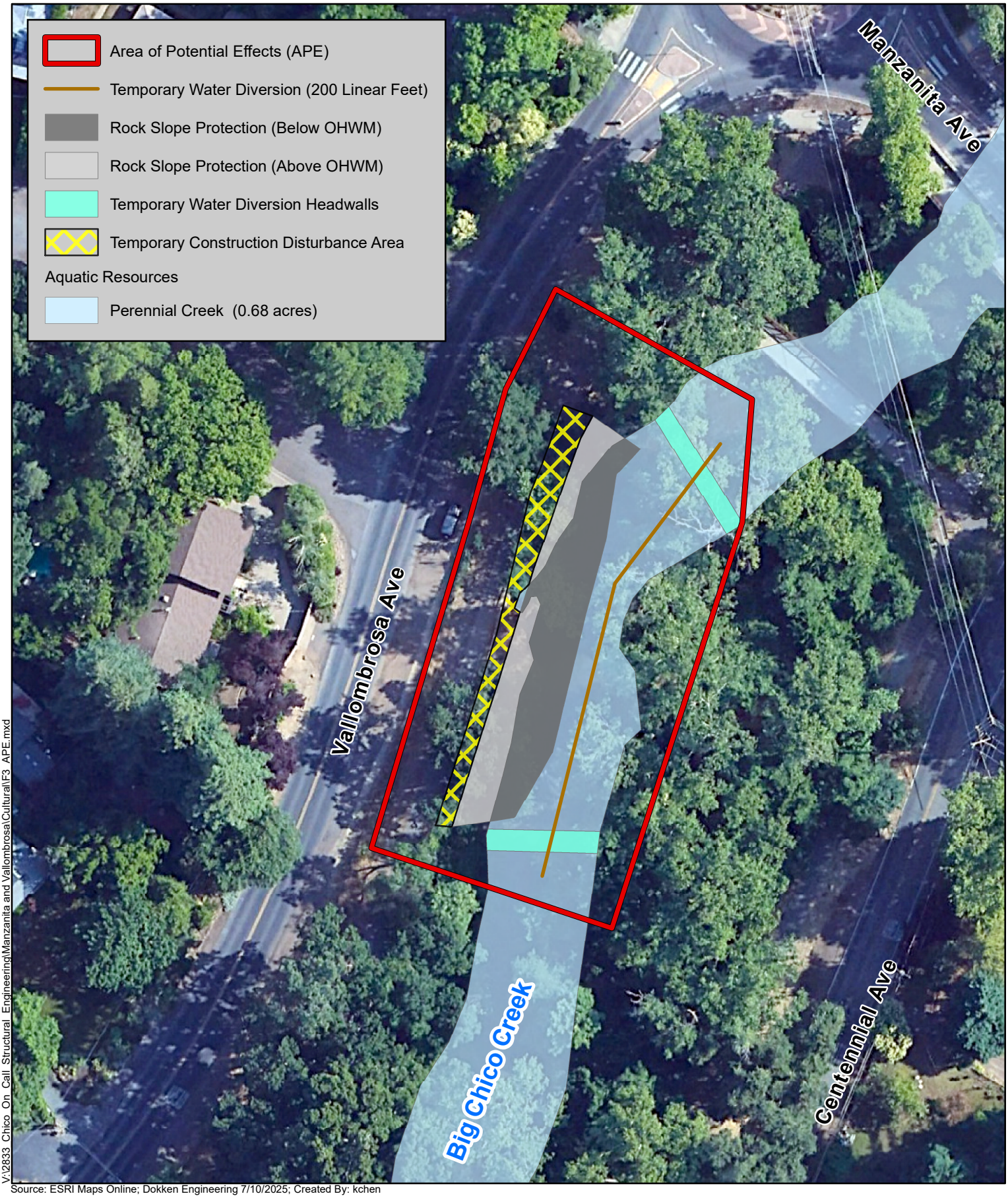
Source: USA Topo Maps Online; Dokken Engineering 5/2/2025; Created By: amyd

0 0.5 1 Miles

FIGURE 2
Project Location

USGS 7.5-minute Quad: Richardson Springs, CA
Big Chico Creek Erosion Repair Project - Manzanita Ave and Vallombrosa Ave
City of Chico, Butte County, California



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Source: ESRI Maps Online; Dokken Engineering 7/10/2025; Created By: kchen

0 50 100 150 200 Feet

Figure 3
Area of Potential Effects

Manzanita Avenue and Vallombrosa Avenue
Big Chico Creek Erosion Repair Project
City of Chico, Butte County, California

1.3 Regulatory Context

Federal Regulatory Context

The NHPA of 1966 is the primary Federal legislation which outlines the Federal government's responsibility to cultural resources. More specifically, Section 106 of the NHPA and its implementing regulations located at 36 CFR Part 800, outline the Federal government's responsibility in identifying and evaluating cultural resources.Section 106 of the NHPA requires the Federal government to take into account the effects of an undertaking on cultural resources listed on and eligible for listing on the National Register of Historic Places (National Register) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties. The 36 CFR Part 800 regulations describe the Section 106 process. They outline the steps the Federal agency takes to identifying cultural resources and the level of effect that the proposed undertaking will have on historic properties. An undertaking is defined as any:

"…Project, activity or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including:

A) Those carried out by or on behalf of the agency.
B) Those carried out with Federal assistance.
C) Those requiring a federal permit, license, or approval; and
D) Those subject to state or local regulation administered pursuant to a delegation or approval by a Federal agency [Section 301(7) 16 U.S.C. 470w(7)]"

It is the initiating of an undertaking that begins the Section 106 process. Once an undertaking is initiated the Federal agency must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action that has the potential to affect historic properties, the Federal agency must 1) identify the APE, 2) determine if historic properties are present within the APE, 3) determine the effect that the undertaking will have on historic properties, and 4) consult with the appropriate State Historic Preservation Officer (SHPO) to seek concurrence on Federal agencies findings. In addition, the Federal agency is required through the Section 106 process to consult with Native American tribes if the undertaking may affect historic properties to which Native American tribes have attached religious and cultural significance. If the undertaking would result in adverse effects to historic properties, these adverse effects must be resolved in consultation with the SHPO, and other parties identified during the Section 106 process before the undertaking can proceed to implementation.

State Regulatory Context

The studies for this Project were carried out under the CEQA and Public Resources Code 5024 and pursuant to the January 2015 Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019 (5024 MOU) as applicable.

CEQA Native American Consultation

Effective January 1, 2015, CEQA was revised to include early consultation between local agencies and California Native American tribes, and to include the consideration of Tribal Cultural Resources (TCRs) in this consultation. Pursuant to AB 52 (PRC 21074[a]), a TCR means either of the following:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

i. Included or determined to be eligible for inclusion in the California Register of Historical Resources
ii. Included in a local register of historical resources as defined in PRC Section 5020.1, subdivision (k)

A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC 5024.1., subdivision (c).

PRC 21074(a) further relays that a cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. PRC 21074(a) also states that a historical resource described in PRC 21084.1, a unique archaeological resource as defined in subdivision (g) of PRC 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of PRC 21083.2 may also be a TCR if it conforms with the above criteria.

CEQA requires formal consultation with California Native American Tribes concerning TCRs that may be impacted by a proposed Project when a Negative Declaration, a Mitigated Negative Declaration or an Environmental Impact Report is being prepared for the Project.

2.0 NATURAL AND CULTURAL CONTEXT

Ethnographic information, indigenous-era, and historic-era research was conducted and is included for context and to determine what types of cultural resources may be present within the Project vicinity. The natural environment review includes short treatments of the geology, local flora, and local fauna.

2.1 Natural Environment Setting

2.1.1 Geology

The Project is located in Butte County, California and within the Sacramento Valley Province (Jepson 2024). The average annual high temperature is approximately 75°F (degrees Fahrenheit), and the average annual lows reach approximately 47°F, with up to 27 inches of precipitation annually (U.S. Climate Data 2024).

Geologic mapping by Saucedo and Wagner (1992) indicates the APE falls within early Pleistocene-aged Red Bluff Formation. Soils at this location consists of Redsluff gravelly loam fan remnant, which is comprised of fine-loamy alluvium derived from igneous, metamorphic and sedimentary rock over gravelly alluvium derived from volcanic rock, and also of Charger fine sandy loam alluvial fan, which is comprised of coarse-loamy alluvium derived from igneous, metamorphic and sedimentary rock over gravelly alluvium derived from volcanic and metamorphic rock (NRCS 2025).

2.1.2 Flora and Fauna

Flora

Land cover types within the APE include roadway, urban/developed, riparian forest, and perennial creek. Big Chico Creek is the only federal jurisdictional feature (waters of the US) identified within the APE.

The riparian forest habitat within the APE occurs along the slopes and banks of Big Chico Creek. This habitat is characterized by an overstory of large riparian tree with a relatively open canopy, featuring species such as California sycamore (*Platanus racemosa),* valley oak (*Quercus lobata*), Northern California black walnut (*Juglans hindsii)* and white alder (*Alnus rhombifolia*).

The understory composition within the riparian forest along Big Chico Creek within the APE, varies depending on canopy cover density and proximity to urban development. Along the west bank, the understory is relatively undeveloped, with the exception of sporadic, dense patches of poison oak (*Toxicodendron diversilobum*). The understory of the riparian corridor along the East bank is highly developed and features dense stands of California wild grape (*Vitis californica*) intertwined with blue elderberry (*Sambucus mexicana*).

Urban and developed areas within the APE consist of paved roads, including Vallombrosa Avenue, gravel road shoulders, as well as the paved pedestrian trail. These areas have minimal natural vegetation, aside from invasive grasses like wild oat (*Avena fatua*) and Spanish brome (*Bromus sitchensis*).

Fauna

Typical fauna in the Project area includes both prey and predatory species. Birds include the acorn woodpecker (*melanerpes formicivorus*), oak titmouse (*baeolophus inornatus*), and Anna's hummingbird (c*alypte anna*). Fish observed include bluegill (*lepomis macrochirus*), mosquitofish (*gambusia affinis*), and steelhead salmon (*oncorhynchus mykiss irideus pop. 11*).

2.1.3 Waterways

Big Chico Creek is a perennial freshwater creek that flows from east to west through the City of Chico. Its flow is primarily governed by natural hydrological processes, with some human intervention for purposes such as recreation, habitat protection, and local water use. Big Chico Creek flows along Vallombrosa Avenue, eventually converging with the Sacramento River about 8.5 miles downstream of the APE. Originating from the junction of the Sierra Nevada and Cascade Mountain ranges, Big Chico Creek maintains a consistent flow year-round. A federal flood control project diverts winter flows into a bypass channel system upstream of the APE which limits the maximum winter flows to 1,500 cubic feet per second within the APE. Its riverbed is composed of pebbles, cobbles, and small boulders.

The riverbed in the Project footprint is predominantly shaded by the surrounding riparian forest, with incised channel banks shaped by erosion resulting from urban development and heavy creek flows.

2.2 Cultural Setting

2.2.1 Indigenous History Context

The following sections are excerpted from the 2017 Archaeological Survey Report for the East Rio Bonito Road Replacement Projects, Butte County, California (Marks 2017).

The earliest traces of the occupants of the Central Valley belong to the Early Man period. This period is characterized by large spear points used to kill big game including mammoths and giant bison, large mammals which existed at the end of the last Ice Age approximately 10,000 years ago (Johnson 1967). Population was low and consisted of small mobile bands of people who left few traces of their passage through the Central Valley (Fredrickson 1973).

Prehistoric human populations in Butte County and within the Sacramento Valley have evolved considerably since archaeologists first proposed a sequence of cultural change in the region in the 1930s. Although research has established that prehistoric groups inhabited parts of California prior to 6,000 years ago, the Windmiller Pattern (roughly 3,000 BC – 500 BC) is the earliest recognized cultural pattern for the Sacramento Valley, which is the portion of the California Central Valley that lies to the north of the San Joaquin-Sacramento Delta (Fredrickson 1973). Archaeological deposits from this period contain a variety of flaked and ground stone artifacts, baked clay, and shell artifacts, suggesting that populations from this period exploited a diverse resource base (Heizer 1949; Ragir 1972).

The Berkeley Pattern (roughly 500 BC – AD 500) suggests a shift in subsistence practices and technology. Mortar and pestle use increase indicated the types of technological changes during this time. The switch to mortar and pestle indicates the acorn became a diet staple (Ragir 1972). The addition of acorns, which were more time-consuming to process, implies greater diet breadth than that observed during Windmiller times (Ragir 1972).

Material remnants from the Augustine Pattern (roughly AD 500- AD 1880) indicate an intensification of resource exploitation, increased sedentism (i.e., a transition from nomadic to permanent, year-round settlement), territoriality, and social complexity (Fredrickson 1973). Technological innovations, such as the bow and arrow, occurred during this period (Fredrickson 1973). Artifacts from this period include flaked and ground stone artifacts, shell beads and pendants, and bone tools (Johnson 1976). Bedrock milling features also are present, either in association with permanent settlements or as a component of smaller task-oriented locations (Johnson 1976).

2.2.2 Ethnographic Context

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Kroeber (1925, 1936), and others, recognized the uniqueness of California Native Americans and classified them as belonging to the California culture area. The APE resides near the center of Konkow territory (Riddell 1978).

Konkow, referred as the Northwestern Maidu, are members of the Maiduan Family of the Penutian language stock. Konkow was spoken in a number of different dialects along the lower reaches of the Feather River Canyon up to Richbar, the surrounding hills, and throughout the Sacramento Valley (Riddell 1978).

*Settlement*s

Settlement patterns of the Konkow are “village communities” (Kroeber 1925) and an individual village community was autonomous and consisted of several, smaller, villages. The center village often displayed the largest *ḱúm* (a semisubterranean earth-covered lodge) which was used as a ceremonial assembly chamber (Riddell 1978). The center village most likely was the home of the “most authoritative man of the village community” (Kroeber 1925) and used the *ḱúm* as his primary residence. This “high authority” man was more of an advisor than appointed or inherited leader, smaller surrounding villages were self-sufficient and were not bound by strict laws (Riddell 1978).

The surrounding villages contained approximately seven houses, and each home was estimated to house roughly 5 people and combined most likely did not exceed an estimated 200 inhabitants (Riddell 1978). In the winters, the Konkow primarily resided within deep canyons and along the Feather, Yuba, or American rivers and in the summer months men often went into the mountains for hunting where dried deer meat was brought back to the villages for winter months (Riddell 1978).

Subsistence

An annual food gathering cycle of the Konkow consisted of processed acorn meat, grass seeds (like wild rye), roots, and fish. In the summers, the Konkow went into the mountains to hunt deer and other fauna which was then brought back to the village to dry for consumption in the winter months. In the spring, grasses and seeds were collected in local valleys by both woman and children. In the winter, the Konkow primarily stayed within their village and ate food from their stores. Other sources of food include yellow jacket larvae, angleworms, locusts, grasshoppers, crickets, eels, salmon. In Konkow culture, the first caught salmon of the season was a common cause for celebration and ceremony. The shaman would prepare the fish, and each man would consume a piece once it was cooked (Riddell 1978). This often triggered an emphasis on fishing as a food source.

Clothing and Adornment

Animal hides were used to make clothing, accessories (such as headbands and belts), and sinew for tools (Riddell 1978). Different than the Maidu, Konkow men were mostly naked in the summers and women wore apron skirts (Riddell 1978). For colder climate, robes made of deer or mountain lion skin was draped over the shoulders for warmth when necessary. Hair was commonly worn shorter than the Maidu and men were known to even pluck their beard and mustache hairs. Women commonly pierced their ears and men often pierced their septum and often adorned them with woodpecker feathers and scalps. These accessories were commonly made of shell, bone, feathers, and wood (Dixon 1905).

Technology
Konkow tools for hunting include knives, spears, and bows and arrows (Riddell 1978). Hard black basalt was harvested and used primarily for making knives and spears which was fastened to a handle or wooden staff then secured with pitch or sinew (Riddell 1978). Obsidian was obtained primarily from trade with neighboring communities and used mostly for arrow heads (Riddell 1978).

Basketry was used as an art and a necessity in storying and collecting food. The Konkow used a simple twining, and designs were worked in with multiple colors from redbud, willow, and pine root dyed black with charcoal (Dixon 1905). The Konkow employed a diagonal twining for burden baskets and weave in designs using different colored materials.

Tule leaves were commonly used to make mats, seats, beds, skirts, rafts, roofing, and doors (Kroeber 1925). These leaves could also be turned into twine and used to make baskets and bags.

2.2.3 Post-Colonial Context
The following sections are excerpted from the 2018 Valley's Edge Development Project Archaeological Inventory Survey (Jensen 2018).

Early Spanish expeditions arrived in the Great Central Valley of California from Bay Area missions as early as 1804. By the mid-1820's, literally hundreds of fur trappers were annually traversing the Valley on behalf of the Hudson's Bay Company (Maloney 1945), some with devastating consequences for the local Maidu and other valley populations (Cook 1955). By the late 1830's and early 1840's, several small permanent European American settlements had emerged in the Valley and adjacent foothill lands, including ranchos in what are now Shasta, Tehama and Butte Counties. One of these was eventually, of course, acquired by Chico's founder, General John Bidwell.

Bidwell arrived in California in 1841 as a member of the first band of Americans to cross the Sierra Nevada for the purpose of settlement (McGie 1983:33). In the spring of 1843, a party of settlers headed north for Oregon from Sutter's Fort, which included John Bidwell, Peter Lassen and James Bruheim. On this trip, Bidwell was clearly impressed by the beauty of the region around Chico, and on his return from Oregon, Bidwell mapped the rivers and streams and the lay of the land at Chico. This map later formed the basis of several of the grants made by Micheltorena, the Mexican Governor of California.

The Rancho Arroyo Chico Grant of November 7, 1844, had been made by Micheltorena on behalf of the Mexican government to William Dickey. Dickey settled on the north side of Big Chico Creek and later sold the ranch to John Bidwell. Bidwell managed this land grant of approximately 22,200 acres, including lands now Bidwell Park, for many years from his home at Arroyo del Chico. As early as 1847 he maintained experimental orchards and fields alongside extensive farming operations (McGie 1983: 35), some of which bordered Lindo Channel and other natural surface water sources in the area, including lands along Chico Creek.

Critical to Chico's growth and economic success was the arrival of the California and Oregon Railroad in 1870, which facilitated rapid transit of goods and services to points throughout the State. Of additional importance to the region was the 1887 establishment of the Northern Branch of the State Normal School. The school's purpose was to train teachers in the art of education and prepare them to administer the State school system. In 1921, the school's name was officially

changed to Chico State Teacher's School, and later became California State University, Chico (University), located adjacent to the APE.

3.0 INVENTORY METHODS AND RESULTS

In order to determine the necessary level of historic property identification efforts for the proposed undertaking and to better understand the types of cultural resources likely to be encountered in the APE during subsequent survey, a variety of resources were consulted. Sources included a records search via the California Historical Resource Information System (CHRIS) at the Northeast Information Center (NEIC) in Chico, and literature and historical map review.

3.1 Records Search

A record search request was submitted to the NEIC (File # NE25-119) on March 13, 2025. The search was conducted by Casey Hegel, NEIC Senior Research Associate, and results were provided on April 14, 2025. The search examined the National Register, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, the *California Historic Landmarks* (1996), and the *California Inventory of Historic Resources* (1976). Additional research efforts conducted outside the NEIC included review of historic USGS topographic and aerial maps, and other pertinent historic data specific to Butte County. The NEIC records search results are located in **Appendix B** of this document.

3.1.1 Previous Survey Coverage

The NEIC identified one previous survey (NEIC-3550) which intersects the northern end of the APE, while 31 additional reports were conducted within the ½-mile search boundary (**Table 1**). Results of the full NEIC record search can be found in **Appendix B**.

Table 1. Previous Cultural Resource Investigations within a ½-mile of the APE Locations

REPORT ID (NEIC-#)	DATE	AUTHOR	TITLE
1187	1994	Jensen & Associates	Archaeological Inventory Survey: Bidwell Ranch Subdivision Project Area, 750 Acres North of Bidwell Park, Between Big Chico Creek and Sycamore Creek, Northeast Chico, Butte County, California
1188	1994	Blossom Hamusek and Steve Jenevein	Archaeological Reconnaissance of Lower and Upper Bidwell Park Vegetation Management Plan Project, Butte County, California
1553	1996	Sean M. Jensen	Archaeological Inventory Survey, Shastan Homes by the Lakes Subdivison Project, c. 6.5-acres, Chico, Butte County, California
3196	2000	Peter M. Jensen	Archaeological Survey, APN 011-020-002 Subdivision Project
3198	2000	Peter M. Jensen	Archaeological Survey, 6.5-ac Whitehall Park Subdivision Project, AP # 011-010-119, Chico, Butte County, California
3446	2001	Peter Jensen and Sean Jensen	Archaeological Inventory Survey: City of Chico's Lindo Channel Existing Conditions Study, Cultural Resources Component, Butte County, California
3550	2001	Peter M. Jensen and Sean M. Jensen	Archaeological Inventory Survey: City of Chico's Proposed Manzanita Avenue Widening Project, Chico, Butte County, California
5806	2004	Lisa Westwood	Cultural Resources Survey of the Hooker Oak Subdivision (APN#045-411-009)
5982	1979	James P. Manning	Archaeological Reconnaissance of the East Chico Drainage Study, Northwest Chico Storm Drainage

Table 1. Previous Cultural Resource Investigations within a ½-mile of the APE Locations

REPORT ID (NEIC-#)	DATE	AUTHOR	TITLE
			Master Plan, Thermalito Master Drainage Plan, Butte County, California
6017	1981	James P. Manning	Archaeological Reconnaissance of Robert Ross (AP56-12-87/ERD log 80-12-18-02), Joseph & Linda Brownfield (AP47-33-14 &-15/ERD log 80-12-12-01), Tony Santos (AP46-30-110, 46-31-57/ERD log 80-11-24-03) Properties, Butte County, California
6019	1980	James P. Manning	Archaeological Reconnaissance of John Paul (AP 41-49-12/ERD Log 80-07-14-02) and Lynn Smith (AP 46-31-10/ERD Log 80-07-01-01) Properties, Butte County, California
6119	1980	James P. Manning	Archaeological Reconnaissance of the Fred Barrios Property, AP# 59-18-30/ERD log# 80- 08-13-01, Ron Owens/Parkside Estates, AP# 59-18-30/ERD Log# 80-08-20-01, and Tom Rogers Property, AP# 34-27-13/ERD Log# 80-08-19-0, Butte County, California
6139	1980	James P. Manning	Archaeological Reconnaissance of the Brown and McIntyre Properties, AP# 48-02-02, 46-32-10, 46-34-26, Butte County, California
6204	1988	Nancy Garr	Archaeological Survey of the Chico Canyon Estates Subdivision Butte County, California
6208	1994	Jamie Moore and Blossom Hamusek	Archaeological Reconnaissance of the Lindo View Manor Subdivision in Chico, Butte County, California
6209	1992	Peter M. Jensen	Archaeological Inventory Survey, Walnut Park Subdivision Project ARE, c. 15 ac Along Centennial Avenue and East 8th Street, Chico, Butte County, California
6214	1995	Blossom Hamusek and Steve Jenevein	Archaeological Reconnaissance of Entrance Corridor to Five Mile Recreation Area, Bidwell Park, City of Chico, Butte County, California.
6636	2006	Lorna Billat	New Tower ("NT") RESUBMISSION Packet FCC Form 620: East Chico / CA-1544A
6816	2005	Peter M. Jensen	Archaeological Survey, c. 3.28-acre Lee Estates Development Project, Bruce/Chico Canyon Road, Chico, Butte County, California.
8162	1995	Peter M. Jensen	Archaeological Inventory Survey of the Benedict Ranch Proposed Subdivision, 32.5 Acres on E. 8th St., Between Big Chico Creek and Dead Horse Slough, Chico, Butte County, California.
8458	2006	Gregory G. White	A Cultural Resource Study of the Proposed Hooker Oak Cell Tower Construction Site, City of Chico, Chico Area Recreation District, Butte County, California
8458	2007	Dana Supernowicz	Cultural Resources Study of the Hooker Oak Project, 1928 Manzanita Avenue, Chico, California
8974	2007	Gregory White	A Cultural Resources Study of the Proposed Bidwell Ranch Conservation and Mitigation Bank Project, City of Chico, Butte County, California
8974	2008	Frank E. Bayham and Kevin D. Dalton	A Cultural Resource Study of the Proposed Bidwell Ranch Conservation and Mitigation Bank Project, City of Chico, Butte County, California

Table 1. Previous Cultural Resource Investigations within a ½-mile of the APE Locations

REPORT ID (NEIC-#)	DATE	AUTHOR	TITLE
10204	2008	Sean M. Jensen	Archaeological Inventory Survey for the Proposed Manzanita Estates Project, c. 7.14-Acres, Chico, Butte County, California.
10706	2009	Meredith Pecora	Final Cultural Resources Technical Report: Levee Geotechnical Evaluation Program, Mud and Sycamore Creeks Left Bank Levee, Chico, California
12116	2013	Joann Mellon and Eric Ritter	Archaeological Reconnaissance for the Proposed Bidwell Oaks Subdivision 3.04 acres (APN 045-411-013, APN 045-411-016) in the City of Chico, Butte County California
12116	2014	Greg White	Results of Phase 2 Archaeological Test Excavations at Prehistoric Site CA-BUT- 3636, Hooker Oak Avenue, City of Chico, California
13989	2016	Sean Michael Jensen	Archaeological Inventory Survey: Proposed Manzanita Development Project circa 9-acres, City of Chico, Butte County, California.
14380	2019	Ashleigh Sims, Robin Hoffman, and Katherine Cleveland	California Department of Water Resources Sacramento Yard and Sutter Yard 2019-2020 Channel Maintenance Areas: Archaeological Resources Inventory and Architectural Resources Inventory and Evaluation Report
14380	2019	Katherine Cleveland and Ashleigh Sims	California Department of Water Resource Sacramento Yard and Sutter Yard 2019-2020 Channel Maintenance Areas: Archaeological Architectural Resources Inventory and Evaluation Report
15077	2022	Jennifer Mak and Lisa Holm	Archaeological Investigation for the City of Chico - Lindo Channel Defensible Space Project, Butte County, California

3.1.2 Previously Recorded Cultural Resources

The NEIC reported no previously recorded resources within the APE. A total of 10 resources were reported within the ½-mile search radius (**Table 2**). The results of the NEIC record search can be found in **Appendix B**.

Table 2. Previously recorded cultural resources within a ½-mile of the APE Locations

Primary	Trinomial	Resource Description	Indigenous or Historic
P-04-000168	CA-BUT-168	Lithic scatter and mortar in leveled field.	Indigenous
P-04-000226	CA-BUT-226	A habitation site with four pit structures, one earthen platform, and one possible additional pit structure.	Indigenous
P-04-001467	CA-BUT-1467/H	Big Chico Creek Flume segment and tender stations with numerous features as well as an indigenous formed mortar.	Multicomponent
P-04-003636	CA-BUT-3636/H	Indigenous habitation site and historic trash scatter.	Multicomponent
P-04-003637		Single-story bungalow, 1917.	Historic
P-04-003638		Single-story Ranch House Ramble style building, 1962.	Historic

Table 2. Previously recorded cultural resources within a ½-mile of the APE Locations

Primary	Trinomial	Resource Description	Indigenous or Historic
P-04-003639		Ground stone fragment, isolate.	Indigenous
P-04-003640		Amathyst glass fragment, isolate.	Historic
P-04-004282		Two-story residence, 1965	Historic
P-04-004750		A historic trash scatter.	Historic

3.1.3 Additional Sources Consulted

A review of historic aerial photography, historic USGS topographic maps, and General Land Office (GLO) maps for both repair locations was conducted.

The 1869 and 1878 GLO Plat maps for Township 22 North, Range 2 East depict the APE along the border of the Rancho Arroyo Chico with no topographic features delineated within Section 18. Big Chico Creek, named “Chico Creek” on the map, is delineated as the boundary of the Rancho and falls generally along the current creek alignment. Drainages and general topography shading is delineated in the eastern half of the map as well as “Sierra Flume and Lumber Co’s Flume”, “Little Chico Creek”, and Butte Creek”.

The earliest topographic maps available from 1912 and 1922 indicate that no development had occurred in the immediate Project area yet. By the 1940s, as seen in topo maps and aerial imagery, Manzanita Avenue and Vallombrosa are in their current alignment with a few dispersed homes depicted, as well as Bidwell Park to the north. Home density steadily increases from this time, with the area adjacent to the APE becoming densely populated by the 1984 aerial image.

3.2 Native American Consultation

A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on March 13, 2025. On March 13, 2025, the results returned as *positive*. The results of the SLF request are located in **Appendix C**.

Under Section 106 of the NHPA, USACE is responsible for conducting consultation with federally recognized Native American tribes that may have sensitive resources or areas within the APE Project. USACE will be responsible for all outreach and consultation.

3.3 Field Inventory Methods

On May 9, 2025, archaeologist Michelle Campbell, M.A., conducted a ground surface inventory of the APE. Linear pedestrian transects no more than 5 meters apart were used within the APE to inspect the visible ground surface with the exception of paved surfaces. All cut banks, burrow holes, and other exposed sub-surface areas were visually inspected for the presence of archaeological resources, soil color change, and/or staining that could indicate past human activity or buried deposits.

3.4 Field Inventory Results

No indigenous or historic-era archaeological resources were identified during the May 9, 2025, pedestrian survey.

Surface visibility throughout the APE varied. Sections of Big Chico Creek were exposed, especially the sections where erosion damage has occurred, resulting in 50-80 percent visibility along the banks of the creek. The upper channel top was densely vegetated with trees, shrubs,

and low grass resulting in 10-50 percent visibility. The remainder of the APE consisted of paved or graveled surfaces.

3.4.1 Buried Archaeological Resource Potential

To determine the buried site potential within the APE, a review of geological landforms, soils, previously recorded sites, and modern development were reviewed. The Project vicinity would have been a targeted location of indigenous peoples' activity along Big Chico Creek. Geological mapping indicates that early Pleistocene age formations make up the APE landforms and conform with geoarchaeological investigations by Meyer and Rosenthal (2008) which suggest very low potential to encounter buried archaeological resources within the APE. From this assessment and the known previously recorded resources within the vicinity, the overall vicinity has *low* buried resource sensitivity.

Additionally, modern disturbances, including roadway and trail construction within the APE, have impacted the potential for surface resources. Project activities will occur primarily within Pleistocene-age bank and channel areas of the creek. For these reasons, the potential for the Project to impact intact cultural resource deposits in the APE is *low*.

4.0 RECOMMENDATIONS AND CONCLUSIONS

The proposed Project involves the installation of rock slope protection along the banks of Big Chico Creek near the intersection of Manzanita Avenue and Vallombrosa Avenue. To identify historic properties and historical resources that might be affected by the undertaking, a review of records on file at the NEIC, archival research, a review of historic aerial photos and topographic maps, and a ground surface inventory were conducted. The buried archaeological site potential was assessed through landform analysis, geologic maps, and visual inspection of exposed subsurface soils within the APE during pedestrian survey.

As a result of these efforts, no indigenous or historic-age resources were identified within the APE. A finding of no historic properties affected pursuant to 36 CFR § 800.4(d)(1) is recommended. A finding of no significant effect to historical resources or Tribal Cultural Resources, per CEQA Guidelines 15064.5, is also recommended for the Project.

As the USACE will conduct their own Native American consultation as part of their Section 106 of the NHPA responsibilities, should additional information which identifies the presence of indigenous cultural resources within the APE be discovered, this report will be updated with the results of those efforts. This report will also be updated with any additional or modified avoidance/minimization/mitigation measures as a result of Native American consultation.

While no indigenous or historic-era resources are noted within the APE, and the potential of encountering intact cultural resources is *low*, the following practices should be implemented in case cultural material is encountered:

CR-1: If non-human bones, pottery fragments, or other potential cultural resources are unearthed during construction, the Contractor shall immediately cease work within 25 feet of the resources and notify City of Chico Public Works Engineering at (530) 879-6900. The supervising contractor shall be responsible for reporting any such findings to the Engineer. No work may occur within the 25-foot buffer until a qualified archaeologist has conducted onsite meetings with the Contractor and determined mitigation measures.

CR-2: If human remains are unearthed during construction, the Contractor shall immediately cease work within 100 feet of the remains and notify City of Chico Public Works Engineering at (530) 879-6900, pursuant to Health and Safety Code 7050.5. The supervising contractor shall be responsible for reporting any such findings to the Engineer. No work may occur within the 100-foot buffer until the City has made the necessary findings as to the origins and dispositions of the remains pursuant to the Public Resources Code 5097.98.

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APPENDIX A:
FIELD INVENTORY PHOTOGRAPHS

Photograph 1. Overview of Big Chico Creek channel south of the pedestrian bridge with erosion damage in background. View facing southwest.

Photograph 2. Close-up of erosional damage along the north bank of Big Chico Creek and of Red Bluff Formation soils. View facing southwest.

Photograph 3. Overview of erosional damage of the north bank of Big Chico Creek. View facing northeast.

Photograph 4. View of trail between Big Chico Creek and Vallombrosa Avenue. View facing northeast.

APPENDIX B:
NEIC RECORDS SEARCH RESULTS
(Not for Public Disclosure)

APPENDIX C:
Native American Heritage Commission

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

March 13, 2025

Amy Dunay
Dokken Engineering

Via Email to: ***adunay@dokkenengineering.com***

Re: Big Chico Creek Erosion Repair - Manzanita/Vallombrosa Ave (2833) Project, Butte County

To Whom It May Concern:

As requested, a record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were positive. Please contact the Mechoopda Indian Tribe on the attached list for more information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, a SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. If within two weeks of notification, a response has not been received, the Commission requests that you follow-up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please notify the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at melina.carlos@nahc.ca.gov.

Sincerely,

Melina Carlos

Melina Carlos
Cultural Resources Analyst

Attachment