

4.10 Cultural Resources

4.10.1 Introduction

This section discusses environmental, prehistoric, ethnographic and historic context and background for the project area. Much of this background information derives from anthropological, archaeological, and historic studies conducted over the past several decades on both public and private lands within the Northern Sacramento Valley and Chico area. As well, this section summarizes information concerning known prehistoric and historic sites located within the project area.

In order to secure information concerning known archaeological and historic sites within the project area, a number of contacts were made, previous archaeological survey reports and other documents reviewed, and pedestrian field survey undertaken, as follows:

- A search of archaeological site and other records maintained by the Northeast Information Center of the California Historical Resources Information System at CSU-Chico
- A review of existing reports and documents related to previous archaeological surveys and other research around Chico
- Review of the National Register of Historic Places (1986, Supplements to 12/01)
- Pedestrian field survey by a professional archaeologist of the 300-acre project area
- Review of published and unpublished ethnographic, historic and archaeological reports and other documents relevant to the project area and surrounding lands

The records search, pedestrian field survey, and document review were undertaken in July of 2002, and are summarized and detailed below.

4.10.2 Setting

Environmental and Cultural Setting

Several types of information were considered relevant to evaluating the types of archaeological sites and site distribution that might be present within or near the project area. The information evaluated prior to conducting field survey includes data on environment, prehistory, ethnography, and early historic developments in the immediate and general vicinity.

Environment

Since prehistoric times, Little Chico Creek has been an important surface water source which made possible relatively intensive occupation of lands within the Chico area. A number of ecotones and microenvironments are represented within and near the project area (Klaseen and Ellison 1974), along the length of Little Chico Creek.

The eastern end of the creek (particularly around Chico) is located at the interface of the Sacramento Valley with the lower reaches of the Cascade Range and Sierra Nevada foothills. Here, low ridges and hills are present which contain interbedded sands and volcanic conglomerates of the Tuscan Formation (MacDonald 1966:71). To the west of Chico and in the vicinity of the present project area, by way of contrast, the Creek traverses flat valley lands dominated by deep, sandy alluvial deposits.

Vegetation along the creek reflects this transition from foothills to valley bottom, and prior to AD 1850 was quite complex (Kuchler 1977). A broad riparian association flanked by an Oak/Park Woodland was likely present throughout the entire project property, although today the breadth of both the riparian and Oak/Park Woodland communities have been narrowed by farming/ranching and other historic and contemporary activities. Even today, however, the primary components of these communities are present within much of the project area, including large valley oaks (*Quercus lobata*), redbud (*Cercis occidentalis*), poison oak (*Toxicodendron diversiloba*), toyon (*Heteromeles arbutifolia*), yerba santa (*Eriodictyon* sp.), sycamore (*Platanus racemosa*), a variety of annual grasses and forbes, and dense willow along the margins of the Creek.

The rich and complex vegetation and associated land fauna, coupled with avian and aquatic species, provided substantial dietary and other economic resources important to the Native American economy of this region.

Prehistory

The earliest residents in the Great Central Valley are represented by the Fluted Point and Western Pluvial Lakes Traditions, which date from about 11,500 to 7,500 years ago (Moratto 1984). Within portions of the Central Valley, fluted projectile points have been found at Tracy Lake (Heizer 1938) and around the margins of Buena Vista Lake in Kern County. Similar materials have been found to the north, at Samwell Cave near Shasta Lake and near McCloud and Big Springs in Siskiyou County. These early peoples are thought to have subsisted using a combination of generalized hunting and lacustrine exploitation (Moratto 1984).

The population of this early culture underwent a substantial increase in density after about 7,500-6,500 years ago. One of the most securely dated of these post-6,500 year old assemblages is from the Squaw Creek Site located north of Redding. Here, a charcoal-based C-14 date suggests extensive Native American presence by 6,500 years ago, or 4,500 B.C. Most of the artifactual material dating to this time period has counterparts further south, around Borax (Clear) Lake and the Farmington Area east of Stockton. Important artifact types from this time period include large wide-stemmed projectile points and manos and metates.

In the Northern Sacramento Valley, aboriginal populations continued to expand between 6,500 and 4,500 years ago (Ragir 1972). By about 2000 years ago, Macro-Penutian-speaking peoples (including the Maidu) are believed to have arrived in the area, bringing with them an economy which relied on extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed- and corner-notched projectile points. Arriving ultimately from southern Oregon and the Columbia and Modoc Plateau

region and proceeding down the major drainage systems (including the Feather, Yuba and American Rivers), the Penutian-speaking Maidu eventually displaced Hokan populations as far west as the Sacramento Valley floor and the margins of the Sacramento River and, at the time of contact with Euroamerican populations (*circa.* AD 1850), were still expanding into areas previously occupied by the earlier Hokan-speaking peoples (including the Yana who by this date had migrated to the north of Chico). Around Chico, the so-called Shasta (archaeological) Complex represents the material culture record of the local Penutian speakers.

This model of prehistoric cultural development within the northern Sacramento Valley is generally well document, and derives from research by Chartkoff, Miller and Johnson (n.d.), Ritter (1970), Markley (1975), Kowta (1978), Jensen (1987); Jensen & Jensen (2000), and others.

Ethnography

As noted above, the Konkow, or Northwest Maidu, were resident in the Chico area at the time of Euro-American contact (*circa.* AD 1840's). These people, whose language has been identified as a branch of the Penutian family, occupied a portion of the Sacramento Valley floor along both sides of the Sacramento River near the present project area, as well as the foothills east of Chico and Oroville near the confluence of the south, middle, north, and west branches of the Feather River, and the lower drainages of Big and Little Chico Creeks and Butte Creek. On the basis of linguistic differences and geographical distribution, the Maidu have been divided into three primary groups: the Southern Maidu, or Nisenan; the Northeastern Maidu, or Mountain Maidu; and the Northwestern Maidu, or Konkow (Shipley 1978:83). It is this latter group which laid claim to the Chico area at the time of Bidwell's arrival.

The basic social unit for the Maidu was the nuclear family, although the village may also be considered a social, as well as a political and economic, unit. Villages were usually located on flats adjoining streams, and on ridges high above rivers and creeks, and were most intensively occupied during the winter months (Dixon 1905:175). Villages typically consisted of a scattering of conical bark dwellings, numbering from four or five to several dozen in larger villages, each house containing a single family of from three to seven people (Riddell 1978:373). Larger villages, with from twelve to fifteen or more houses, might also contain a *kumi*, a semi-subterranean earth-covered lodge. The village containing the largest of these structures acted as the ceremonial assembly center (ibid.:373). Between three and five villages comprised a "village community" which defended, controlled and exploited a known territory.

Resources exploited by the Maidu in the Chico area were both diverse and prolific. A variety of plant and animal species was readily available for collection, processing and consumption, with several different food types complimenting one another during various seasons. During the spring, a variety of herbs, tubers, roots, and grass seeds were collected from environments within close proximity to the winter village. During the summer months, individuals and groups would venture into the higher elevations in order to procure various plants and animals. Small, medium, and large mammals were actively hunted within the mountainous regions east of Chico, with only the coyote, dog, wolf, and bear avoided. Several types of insects were also collected during the summer,

including yellow jacket larvae, grasshoppers, locusts, and crickets; all of which could be eaten dry, or roasted, the bulk of which were often stored for the winter months.

The transition between summer and autumn brought with it an abundance of food resources. Late summer fish runs were actively exploited, with salmon providing a large portion of the spoils. In addition to salmon, suckers, eels, and a variety of small, slow fish were actively exploited, especially during the Late Prehistoric periods (Broughton 1988). Fresh water mussels were also collected by the Maidu year-round, but were intensively exploited during periods of low water volume (late summer/early autumn) (Eugster 1990:114). Several types of nut seeds were collected during the early autumn months as well, with acorns provided by various oak species representing the greatest volume of nut meat harvested. While several varieties of acorn producing oaks exist, the Maidu preferred the black oak, golden oak, and the interior live oak. Other acorn producing varieties include the valley oak, blue oak, and the tan oak. The acorns were collected and then crushed in mortars to form acorn flour. Tannic acid had to be leached from the flour with warm water before consumption. A bland bread was baked from the flour, providing a carbohydrate staple.

Technological adaptations by the Maidu allowed for a quasi-sedentary lifestyle, especially within the Chico area where food resources were relatively abundant. Storage was crucial to sedentism, with storage devices, structures, and methods being numerous.

During the course of seasonal rounds and in conjunction with specialized resource exploitation, the Maidu created a wide range of archaeological site “types” in the Chico area, with fewer site types present within the flood zone of the Sacramento River. While only fragmentary evidence of the associated material culture remains at many of these sites (due in large part to perishability but also to the impacts to archaeological sites resulting from later [historic] land uses), the potential range of such site types for the present project area was expected to include:

- Surface scatters of lithic artifacts and debitage, often but not always associated with dark brown to black “midden” deposits, resulting from village encampments. Typically such sites are located adjacent to water sources
- Surface scatters of lithic artifacts and debitage without associated middens, resulting from short-term occupation and/or specialized economic activities
- Trails
- Mortuary sites
- Isolated finds of aboriginal artifacts and flakes

One final note with regard to all of these site types. The project area is located within lands subjected to regular and substantial flooding during prehistoric and historic time periods. The result is that some sites in this area have been buried under sediments, leaving no surface indicators of their presence. They could be encountered or exposed during excavation, a possibility considered in the mitigative recommendations at the conclusion of this report.

Historic Context

Early Spanish expeditions arrived in the Great Central Valley of California, although not necessarily in northern 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), 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 grants was the Rancho de Farwell.

The Rancho de Farwell Grant of July 1844 had been made by Micheltorena on behalf of the Mexican government to Edward Farwell and Thomas Fallon.

Bidwell himself had 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 (ibid.:34). 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 and around Chico (ibid.:34). This map later formed the basis of several of the grants made by Micheltorena, one of which was the Farwell Grant described above.

The site of Chico Landing, also known as Bidwell's Landing, is located on the Sacramento River a little over a mile northwest of the project area. This site was used as a ferry crossing and loading dock for the importation and exportation of goods used in the Chico area.

Within the project area, ranching/farming have been undertaken since the historic land grant period. Ranching/farming-related impacts to some of the land within the property include modifications associated with access road grading, leveling, scraping, stream course channelizing, and placement of irrigation features.

Cultural Inventory

The current inventory is based on a number of sources consulted and tasks undertaken. These include the following:

Northeast Information Center: The official Butte County archaeological records maintained by the Northeast Information Center at CSU-Chico were examined for existing recorded prehistoric or historic sites on July 8, 2002 (I. C. File # W02-51 dated July 8, 2002), with the following results for the project area:

- Portions of the project area were previously subjected to archaeological survey. This work involved archaeological survey for a proposed green belt along both sides of the Little Chico Creek drainage system, from Chico to the Sacramento River. The survey report itself (Information Center Document #B-144) has been lost and is no longer available, however, the mapped location of the survey route and general information concerning the nature and intensity of the survey

is still available on the relevant USGS topographic quads. No sites were identified within the project area by Chico State during this previous survey, which incidentally involved the archaeologically most sensitive lands within the present project area.

- No prehistoric or historic-period sites or features have been identified or recorded within or adjacent to the project area. Adjacent Fell Road and Ord Ferry Road represent historic alignments, but the extant features (roadways) today retain none of the original historic attributes.
- Given the fact that only a portion of the overall project area had previously been surveyed, and in consideration of the fact that the project area incorporates natural terraces associated with an important stream course (Little Chico Creek), the Information Center at CSU-Chico recommended an appropriate level of additional pedestrian survey prior to approval of further ground disturbing impacts. This work was undertaken in July 2002 by Jensen & Associates, Archaeological Consulting, Chico, and the results of that specific study summarized below.

The National Register of Historic Places (1986, Supplements to 12/01).

The California Inventory of Historic Resources (State of California, 1976).

The California Historical Landmarks (State of California, 1990).

California Department of Transportation's Historic Bridge Inventory (1986).

Existing published and unpublished documents relevant to environment, prehistory, ethnography, and early historic developments in the vicinity. These sources provided a general environmental and cultural context by means of which to assess likely site types and archaeological site distribution patterns for the project area, and are summarized above.

Pedestrian Field Survey/Specific Study conducted in July 2002 by Dr. Peter M. Jensen (Jensen & Jensen 2002). The specific study involved a complete-coverage, variable-intensity pedestrian field survey of the project area. The results of this specific study have been filed with the Northeast Information Center at CSU-Chico and may be summarized as follows:

An archaeological pedestrian survey was conducted of approximately 300 acres of land within the M&T Ranch property southwest of Chico. A search of existing records at the Northeast Information Center documents that a portion of the project area – the archaeologically most sensitive lands adjacent to Little Chico Creek – had been surveyed by field classes from Chico State in the mid-1970's. Chico identified no sites during this previous survey work. As well, no new sites (prehistoric or historic) were identified during the 2002 pedestrian survey, which involved all of the 300-acre project area. Based on the negative results achieved during the search of records and the pedestrian survey, conditional archaeological clearance was recommended for the proposed undertaking.

Regulatory Setting

The proposed project constitutes an “undertaking”, according to agency definitions, which could affect archaeological and historic sites located within the Area of Potential Effect (APE), which consists of the 300-acre portion of M&T ranch proposed for gravel mining activities. The APE consists of the land areas which could be directly impacted by project activities, such as mining, extraction equipment, batch plants and other processing facilities, access roads, etc.

Evaluation of the potential impacts to cultural resources is required by the County’s General Plan, which requires compliance with CEQA. CEQA, in turn, requires completing site evaluations in conformity with Section 15064.5 of the amended CEQA Guidelines, and other relevant Sections.

As well, the County General Plan contains certain specific provisions for treatment of cultural resources, as follows:

The Butte County General Plan Land Use Element contains the following policies relevant to cultural resources:

- 6.7.a. Identify and evaluate all cultural resources impacted by proposed projects before approval and development.
- 6.7.b. Preserve significant sites or require their detailed investigation by competent archaeologists.
- 6.8.a. Encourage preservation of significant historical sites.

4.10.3 Impacts and Mitigation Measures

Standards of Significance

The project will be considered to have a significant impact if it results in any of the following:

- Disturbance of paleontological resources
- Disturbance of archaeological resources
- Disturbance of historical resources
- Disturbance of cultural resources that are either listed upon or eligible to be listed on the National Register of Historic Places (NRHP), registered or eligible to be registered as a State Historical Landmark, or included in a County inventory of historic properties
- Have the potential to cause physical change which would affect unique ethnic cultural values or
- Restrict existing religious or sacred uses within the potential impact area

Impact 4.10-1: Disturbance of Subsurface Archaeological, Historic, or Cultural Resources

Proposed Project With Batch Plants Scenario

The proposed project has the potential to result in the disturbance of subsurface archaeological, historic, or cultural resources. This is a potentially significant impact.

Although no paleontological, prehistoric, historic or traditional cultural resources were identified on the basis of surface observations during the specific archaeological study (Jensen & Jensen 2002), the possibility that important prehistoric cultural materials could inadvertently be encountered during ground disturbing activities associated with the project was addressed in the specific study (Jensen & Jensen 2002). Provisions for actions to take to ensure that any such inadvertent studies do not result in adverse impacts to cultural resources are detailed in the specific study. These provisions are included herein as mitigation measures.

Mitigation Measures

The following mitigation measures will be implemented. The Applicant shall complete and fund all mitigation measures deemed necessary.

Mitigation Measure 4.10-1a: The specific study is based on the findings of an inventory-level surface survey only. There is always the possibility that potentially significant unidentified cultural materials could inadvertently be encountered on or below the surface during the course of proposed future development or construction activities. In such a situation, archaeological consultation should be sought immediately.

Mitigation Measure 4.10-1b: In order to ensure proper identification of any cultural materials that might inadvertently be encountered during future development, construction, or gravel extraction work, the County's use permit should include a provision for training of field personnel in identification procedures, prior to implementing the quarry operation. The training would take the form of a 1/2 day seminar in which a professional archaeologist would review with operations personnel the natural and cultural history of the project area, archaeological sensitivity, the most likely locations of buried cultural materials, and what kinds of cultural materials would be seen if prehistoric cultural materials are in fact unearthed. The seminar would conclude with specific instructions on how to address such discoveries and what immediate actions to take.

Level of Significance After Mitigation: Implementation of these mitigation measures would reduce this impact to a less than significant level.

Proposed Project Without Batch Plants Scenario

The proposed project has the potential to result in the disturbance of subsurface archaeological, historic, or cultural resources. This is a potentially significant impact.

Surface disturbance associated with the proposed aggregate mine has the potential to disturb unknown subsurface cultural resources.

Mitigation Measures

As the impacts are similar to those for the Proposed Project With Batch Plants Scenario, no additional mitigation beyond 4.10-1a through 4.10-1b are required.

Level of Significance After Mitigation: Implementation of these mitigation measures would reduce this impact to a less than significant level.

Impact 4.10-2: Disturbance of Listed Cultural Resources

Proposed Project With Batch Plants Scenario

The proposed project will not disturb any listed cultural resources. This is a less than significant impact.

No cultural resources of any type are recorded or listed for the project site.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation: Less than significant.

Proposed Project Without Batch Plants Scenario

The proposed project will not disturb any listed cultural resources. This is a less than significant impact.

No cultural resources of any type are recorded or listed for the project site.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation: Less than significant.

Impact 4.10-3: Unique Cultural Values or Religious or Sacred Uses

Proposed Project With Batch Plants Scenario

The proposed project is not known to be the site of any unique cultural values or existing religious or sacred uses that would be affected or restricted by the project. This is a less than significant impact.

The site is not known to have any unique cultural values or existing religious or social uses.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation: Less than significant.

Proposed Project Without Batch Plants Scenario

The proposed project is not known to be the site of any unique cultural values or existing religious or sacred uses that would be affected or restricted by the project. This is a less than significant impact.

The site is not known to have any unique cultural values or existing religious or sacred uses.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation: Less than significant.