# APPENDIX G-CUL
# CULTURAL RESOURCES

This appendix supplements the information on the cultural resources issues provided in Section 5.9.1. This appendix contains additional information on the:

- Cultural resources overview of the project area;
- Methodologies used for the inventories of archaeological, ethnographic, and historical buildings and structures; and
- Prehistoric, historic, and ethnographic resources documented within the Area of Potential Effects (APE) for the Oroville Facilities.

The cultural resources investigations conducted for the relicensing effort resulted in the production of three technical studies: *Archaeological and Historical Resources Inventory Report* (DWR 2004a), *Ethnographic and Ethnohistoric Inventory of Konkow Maidu Cultural Places* (DWR 2004b), and *Historic Properties Inventory and Evaluation: Oroville Facilities, Butte County, California* (DWR 2004c). Detailed descriptions and analyses of the prehistoric, historic, and ethnographic findings can be found in the respective reports. Because these reports contain sensitive information on the nature and location of cultural resources, they are considered confidential and are intended for limited distribution.

## G-CUL.1 CULTURAL RESOURCES OVERVIEW

The following sections provide a more detailed overview of the prehistoric, ethnographic, and historic resources of the region. This information is derived from the technical investigations conducted for the Oroville Facilities.

### G-CUL.1.1 Prehistoric Setting

The basic outline of prehistoric cultural chronology in the project area and environs was first developed by Olsen and Riddell (1963) and later expanded and elaborated by Ritter (1968, 1970) and Kowta (1988). Prior to about 5,000 years Before Present (BP), there is little direct evidence of human occupation in the Lake Oroville region, although surrounding areas show indications of human presence.

#### *G-CUL.1.1.1 Oroville Vicinity*

Sometime after approximately 5,000 BP, the Lake Oroville locality evinces its first indications of intensive occupation. The earliest securely dated archaeological complex in the Lake Oroville area is the Mesilla Complex, which has been dated between about. 3,000 and 2,000 BP. Kowta (1988) has described this as the Butte County foothills variant of the regional Martis tradition. Use of manos and metates was emphasized for vegetal processing, as they were evidently used to grind and prepare hard seeds; cylindrical pestles and bowl mortars were present but rare. Game was hunted with atlatl

and dart points made from basalt, slate, and chert. Among these points were leaf-shaped, stemmed, and side-notched Martis series variants. *Haliotis and Olivella* beads, charm stones, and bone pins and spatulae also are part of Mesilla Complex assemblages. Several burials attributed to this period were flexed on their sides, in some cases marked by milling stones or rock cairns. This complex may represent sporadic, possibly seasonal occupation of the northern Sierra Nevada foothills by primary or local bands and task groups; some exploitation of riverine resources is inferred (Ritter 1970).

The subsequent Bidwell Complex saw the continued use of basalt and slate dart points. This complex is placed from about 2,000 to 1,200 BP. It is inferred that people lived in relatively permanent villages with formal cemetery areas. From these centralized settlements, small task groups went out to hunt; collect freshwater shellfish; fish with nets held in place by grooved, notched sinker stones; and gather acorns processed on milling slabs and also probably in wooden mortars. Bone awls and tubular bone beads were manufactured. Steatite vessels were used for cooking, with their frequency of occurrence increasing as time progressed. Most projectile points were manufactured from basalt, with both large and small variants in stemmed and corner-notched morphologies. Along with a relatively sedentary lifestyle, initial development of tribelets is postulated for this period.

During the Sweetwater Complex, dated from about 1,200 to 500 BP, the advent of the bow and arrow probably occurred. Arrows were tipped with small, lightweight, stemmed and corner-notched projectile points. Mortars (cobble and slab) and pestles (conical, flat-ended) were the principal groundstone tools, though use of the hand stone and milling slab continued at reduced levels. The steatite industry was elaborated, with cups, platters, bowls, and tubular smoking pipes among the items produced. There was a large variety of bone artifacts (tubular beads, spatulate objects, pins, fish gorges, awls, flakers) and an expanded inventory of marine-shell artifacts, including *Olivella* beads and *Haliotis* “banjo” ornaments. The acorn complex appears well-developed, and a tribelet form of political organization probably prevailed.

The Oroville Complex, from about 500 to 150 BP, represents the protohistoric Maidu-Konkow. Acorn processing became increasingly focused at bedrock mortar facilities. Desert series projectile points predominated. Steatite vessels were absent, though the material was still used for ornaments and pipes. Diagnostic artifacts included small, tubular bone beads, incised bird-bone tubes/whistles, bone gorge hooks, gaming bones, metapodial awls, tubular steatite pipes, and clamshell disk beads. Several kinds of structures—including large, circular dance houses—were constructed, and were similar to those occurring historically. Caves and rock shelters continued to be occupied. During this period, the acorn complex reached its greatest development, supplemented by the gathering of other plants, hunting, and fishing. The Kuksu religion was probably present in some form. Political organization was very similar to the ethnographic pattern (i.e., tribelets), and population density reached its highest levels at this time.

### *G-CUL.1.1.2 Southern Cascades*

North of the Lake Oroville region, a more temporally limited cultural chronology has been suggested for ethnographic Yana territory in the southern Cascades. Originally formulated during the 1950s through the work of Baumhoff (1955, 1957), the cultural history of this area subsequently has been elaborated on by the largely unpublished work of Jerald Johnson, summarized by Jangela and White (2001:18-19). The Deadman Complex, placed between about 4,500 and 2,500 BP, appears to largely correspond to the earlier part of the Martis tradition. The use of basalt for manufacture of flaked-stone tools predominates over the use of obsidian and chert. Assemblages are dominated by large, side-notched projectile points. There are also large, unifacially flaked, leaf-shaped points, along with large stemmed forms. Groundstone tools are represented by manos and metates. Marine shell artifacts include *Olivella* shell beads, and large, disk-shaped beads and triangular pendants made from *Haliotis* shell.

The subsequent Kingsley Complex, dated from approximately 2,500 to 1,500 BP, corresponds with the later portion of Martis. A preference for manufacturing flaked-stone tools from basalt continues. Other lithic tools include small, well-shaped scrapers and cobble core tools. Among the wide variety of groundstone tools are rectangular manos, slab metates, hopper mortars, and flat-ended pestles, often shaped from use. Spatulate bone tools, *Olivella* shell beads, and flat *Haliotis* beads also occur. The remains of multifamily houses are present.

The Dry Creek Complex, from about 1,500 to 500 BP, is characterized by a preference for obsidian over basalt and chert for flaked-stone tool manufacture. Introduction of the bow and arrow is indicated by the presence of projectile points morphologically similar to Columbia Plateau corner-notched and Gunther series points, which occur along with medium to large serrated forms. Groundstone artifacts are similar to those typifying the preceding period. Diagnostic shell beads and ornaments include M series and spire-hopped *Olivella* beads, disc-shaped *Haliotis* ornaments, and perforated freshwater shellfish ornaments. Deer ulna awls/flakers are also present. Tightly flexed burials are interred in prepared grave pits.

The Mill Creek Complex, dated from 500 to 150 BP, represents the protohistoric Yana. Use of the bow and arrow is evident, marked by the presence of small, gracile Desert series points, small, serrated corner-notched points, and small, barbed points. Obsidian continues to be favored over basalt and chert as a tool stone. The groundstone assemblage is little different from those typifying the two preceding complexes. Among the diagnostic artifacts are medium-sized clam disk beads, *Glycymeris* shell beads, magnesite cylinders, and twined basketry. Structures include single-family dwelling, 3 to 4 meters (m) in diameter, and larger, earth-covered ceremonial or communal structures. The Mill Creek Complex transitions into the Ethnographic Yana Complex (ca. 150–90 BP), composed of archaeological remains associated with Yana speakers maintaining traditional lifeways during the early part of the historic period.

### *G-CUL.1.1.3 Northern Sierra Nevada*

The prehistoric cultural chronology for the northern Sierra Nevada was initially developed during the 1950s (i.e., Elsasser 1960; Heizer and Elsasser 1953), at which time two complexes were identified. The earlier of these was termed Martis, the later Kings Beach. Traits associated with the Martis Complex included preferred use of basalt for flaked-stone tools; rare use of obsidian and chert; occurrence of large, heavy, roughly flaked, variable-form projectile points; use of manos and metates; presence of cylindrical pestles and possible bowl mortars; atlatl use inferred from the metates; presence of cylindrical pestles and possible bowl mortars; atlatl use inferred from the presence of boat stones; an economic emphasis upon hunting and hard seeks; abundant basalt flake scrapers with pressure-retouched edges; common expanded base, finger-held, flaked-stone drills/punches; common spokeshave-notched tools with concave edge; abundant large bifaces and cores; and “Central Sierra Abstract Style” bedrock petroglyphs (Elsasser and Gortner 1991). Among Kings Beach Complex traits are the following: use of obsidian and chert as the principal toolstones for fabricating flaked-stone tools; rare use of basalt; use of bedrock mortars for grinding acorns and seeds; presence of small, light, side-notched projectile points; inferred use of the bow and arrow; rare occurrence of scrapers and drills; economic emphasis upon fishing, pinyon harvesting, seed grinding, and some hunting; and equation of this complex with the prehistoric ancestors of historic Washoe-speaking peoples (Jackson et al. 1994a, 1994b; Markley and Henton 1985).

The original Martis-Kings Beach dichotomy subsequently has been elaborated and expanded into a Late Pleistocene/Holocene cultural chronology for the northern Sierra and adjacent areas by Elston (1971, 1979) and Elston et al. (1977, 1995). The Washoe Lake phase, dated before 10,000 BP, is the earliest known manifestation of human presence in the broader region. The subsequent Tahoe Reach phase is suggested to have occurred ca. 10,000–8,000/7,500 BP. The Spooner phase dates from 8,000/7,500 to 5,000 BP. The Early Kings Beach phase dates from about 1,300 to 700 BP.

### *G-CUL.1.1.4 Previous Archaeological Research*

Early archaeological efforts within the project area include the 1952 survey of the proposed Lake Oroville for the National Park Service (Treganza 1953). An extensive program of site survey and excavation was undertaken by the California Department of Parks and Recreation (DPR) during the early and mid-1960s. This “salvage archaeology” was focused upon areas destined to be affected by the construction of Oroville Dam and its ancillary facilities, and by the flooding of Lake Oroville. Archaeological surveys, begun in 1960, culminated in 1965 with an intensive survey effort (Chartkoff and Ritter 1966). Excavation efforts were focused on sites located within the relocation route of the Western Pacific Railroad (Olsen and Riddell 1963), the Oroville Dam spillway (Jewell 1964), Bidwell Bar and the Feather River below the damsite (Gebhardt 1964; Olsen 1964), and BUT-84, *Tie Wiah* (Ritter 1968). During the same time, the University of California, Los Angeles, conducted excavations at several sites located adjacent to Lake Oroville (Chartkoff and Chartkoff 1968, 1983; Pritchard et al. 1966).

Ongoing recreational development in areas such as the Lime Saddle and Craig Saddle recreational areas led to extensive archaeological survey and testing efforts in the 1970s, 1980s, and 1990s (Furnis and Young 1976; Hood 1988; Hunter and Orlins 2000; Jensen and Associates 1990; Woodward 1984; Hines 1996; Rivers 1991; Steidl et al. 1999). Inventories of artifact collections associated with human remains from the project area have been conducted by DPR (1992), and Kautz and Taugher (1987).

### G-CUL.1.2 Ethnographic Setting

The Feather River region has been occupied by the Konkow-Maidu for at least 3,000 years. Many natural and cultural factors influenced how these prehistoric people used the area in which they lived. The Maidu adjusted their way of life to match the seasonal availability of food and other natural cycles. Over time, the subsistence adaptations they developed increasingly focused upon the gathering and use of fish, large mammals (e.g., elk, deer, pronghorn), and acorns. These were supplemented by a host of other plants and animals. Various technological innovations were directly tied to subsistence. Milling stones, for example, which were used to grind seeds, roots, and acorns, were used during a much earlier time period, and eventually gave way to the use of mortars and pestles. Other technological innovations included changes in weaponry (e.g., the introduction of the bow and arrow) and textile arts (e.g., the development of basketry). Prehistoric people's responses to annual events are evident in the types of places prehistoric sites are found and the kind of artifacts they contain. For instance, hunting camps are situated along what were once major game trails, and often contain arrow and dart points. By studying the differences in the types and styles of these and other tools, archaeologists are able to reconstruct local innovations as well as cultural influences between the ancestral Konkow-Maidu and their neighbors.

Certain areas of the Feather River basin were more conducive to occupation than others to the indigenous population. Konkow settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. A major village with a large, semi-subterranean lodge often provided the central ceremonial and political focus for several nearby affiliated villages. These communities incorporated 3 to 5 smaller villages, with a total population estimated at 200 people. Houses were domed structures covered with earth and tule or grass. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Several such village communities have been identified in the general Oroville region, with some locations occurring within the project area (Rathbun n.d.).

The Konkow occupied these permanent settlements from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. Like other California Native American peoples, the Konkow practiced a mixed system of gathering, fishing, and hunting. Deer and salmon were the chief sources of animal protein in the aboriginal diet, but many insect and other animal species were taken when available. Acorns were also an important food source that could be stored in anticipation of winter shortfalls in resource abundance. Many other plant foods were also dried and stored for later use. Konkow families moved to strategic locations at

appropriate harvest times to gather these desired foods. Trade with neighboring tribes was also used to supplement the locally available resource base, and to foster intertribal relationships. Resource planning also allowed the Konkow to provide for ceremonial meals to which families or settlements invited many others to partake of their generosity. Traditional competitive games also provided an important opportunity for social interactions with teams from neighboring communities.

Significant changes for California Native Americans began with the Spanish occupation of the coastal regions of the state in the 1800s. This change continued and worsened with the influx of trappers, early settlers, and miners. Disruption of the environment, disease, and conflict decimated Native American communities. The Gold Rush in 1849 was particularly devastating for the Konkow-Maidu. The Feather River and surrounding hills contained rich gold deposits, which enticed thousands of miners to the area. The landscape was destroyed by their mining techniques, and the indigenous people were ultimately driven off their land in numerous violent encounters. The Maidu, along with other tribes, were officially driven off their land in 1853 and removed to the Nome Lackee reservation in Tehama County. Many, however, returned to their original homes due to a structure at this reservation. In 1863, after continuing conflicts, the Konkow were again forcibly removed and marched across the Coast Range to the Round Valley Reservation in northern Mendocino County.

Thereafter, Konkow communities survived by keeping a low profile in areas that were considered less desirable by Euroamerican farmers. Some adopted Western technologies and economic strategies that integrated well into their traditional lifestyles. Many men worked for cash in the lumber companies or worked as ranch hands. Women continued to gather wild foods, but also planted fruit trees, and gardens with beans, potatoes, squash, and other vegetables. A secure land base eluded the Konkow until around the turn of the 20th century, when several small rancherias were created, finally establishing a legal land base for them and formalizing their tribal status with the federal government.

### G-CUL.1.3 Historic Setting

The Feather River–Lake Oroville region is an area with a rich and varied history, reflecting myriad human activities and trends. This region of Butte County reflects many of the themes and events observed in California history. The major historical themes pertinent to the area include early settlement, mining, railroad industry, agriculture, and hydroelectric power.

#### *G-CUL.1.3.1 Early Settlement*

The first direct contacts between the local indigenous population of the Sacramento Valley and the northern Sierra Nevada foothills and the Spanish did not occur until the early years of the 19th century. The earliest Spanish exploration of the Feather River area came in 1808 with the military expedition of Gabriel Moraga, which set out from Mission San Jose in late September to find a suitable site for a new mission in the interior (Cutter 1950:121-130). There were no further Spanish expeditions into the area

until Luis Arguello's explorations of the northern part of the Great Valley in 1820 and 1821. According to lore, the Feather River acquired its modern name during the first of these Spanish military expeditions. Arguello is said to have named the river *Rio de las Plumas*, or Feather River, after seeing a large number of feathers floating on its waters. In the two decades that followed, both the Spanish and English names for the river appear on various maps (Gudde 1998:130; McGie 1982, I:30).

In later years under Mexican rule, foreign immigration and trade were encouraged. Furthermore, if a foreigner was willing to become a Mexican citizen and a Catholic, he was welcomed into Californio society with all the rights of the native-born to participate in trade and to own land (Rice et al. 1996:149-151). Between 1844 and 1846, Governors Manuel Micheltorena and Pio Pico named a number of grants in the area of modern Butte County, including one in the project area. In 1846, Governor Pico granted four leagues along the west side of the Feather River to Dionisio and Maximo Fernandez, the sons of a former alcalde of Monterey who was of Mexican birth. Most of the other ranchos in the area were granted to Americans who had become naturalized Mexican citizens rather than to Californios, and were located to the west and northwest, along the Sacramento River and its tributary creeks (Beck and Haase 1974:26; Cowan 1956:36; Mansfield 1918:38-40).

Most of the early American and European immigrants had come by sea, with the exception of the fur traders who had traveled overland. With the development of overland routes, several immigrant parties that included families began to arrive. Many of these new immigrants were unwilling to become part of the Californio society, remaining United States citizens and resisting Mexican law and conversion to Catholicism (Hass 1998:336). They settled on the western edges of the lower Sacramento Valley. It was from this group, as well as from settlers in the nearby Napa Valley, that the participants in the Bear Flag revolt emerged, striving for independence from Mexico. Their small rebellion was quickly subsumed into the larger war between Mexico and the United States, which ended in the U.S. acquisition of California in 1848.

### *G-CUL.1.3.2 Mining*

The Feather River was a major gold-producing area, with all the social, economic, and environmental consequences found elsewhere in the mining West. The discovery of gold at Sutter's Mill on the American River in January 1848 led ultimately to one of the largest voluntary migrations of people in modern history. The first recorded gold discovery on the Feather River was made by John Bidwell in March 1848. Bidwell arrived in California in 1841 with the Bidwell-Bartleson party, the first to come overland. He later worked for John Sutter and explored the Sacramento Valley and the Feather River area. Visiting the site of the gold find at Sutter's Mill, he recognized the similarity of the Feather River to the American River. On his return trip to Arroyo Chico, where he had bought land and made his home, he stopped at what would be known as the Hamilton Bend of the Feather River and panned for gold, finding some flakes. Encouraged by these finds, he organized a group, including several other ranchers and a sizable number of Konkow-Maidu, to investigate further up the Feather River. Before long, Bidwell made a substantial find in April 1848 at what became known as Bidwell

Bar (aka Bidwell's Bar) on the south side of the Middle Fork of the Feather River, which he proceeded to work using indigenous labor (Mansfield 1918:42-43). Other settlers in the area who made substantial finds on the Feather River included John Potter at Potter's Bar on the North Fork and Sam Neal at what became known as Adamstown, on the south side of the river across from what became known as Long's Bar.

Potential miners who arrived at the Feather River in the fall of 1849 discovered that many had come before them. Charles Parks and his companions traveled north from Sacramento; they first went to Bidwell Bar on the Middle Fork, which had developed into a substantial mining camp, and then 5 miles up the river to locate a claim near what they called Oregon Bar (Parke 1989:85-88). Delano established a store at the lower end of Bidwell Bar, known as Dawlytown (Delano 1853:112). For those who came the northerly route from Lassen's Cutoff, Long's Bar on the main Feather River was usually the first mining camp reached. By November, there were more than 2,000 people at Long's Bar, living in a variety of dwellings on both sides of the river. The camp, a major source of supplies for miners on the Feather River, boasted 15–20 stores and a hotel (Holliday 1981:312).

The Feather River was largely a placer-mining area, being rich in gold-bearing gravels and lacking the large veins of gold found in the Mother Lode. Over the years, the simple early placer-mining techniques were replaced by river mining, drift mining, hydraulic mining, and dredging. Quartz mining, also known as hard-rock mining, occurred, but was not as widespread as the various forms of placer mining. By the end of 1850, there were 214 mining camps on the Feather River, its branches and tributaries (Talbitzer 1987:29). For the next 70 years, gold mining in its various forms remained a significant economic activity in the project area, subject to the boom-and-bust nature of the extractive industries throughout the West.

#### *G-CUL.1.3.3 Railroads*

The arrival of the railroad in the 1860s improved the Feather River area's connection to the larger state and national transportation network. The California Northern Railroad, the first in the area, was completed from Marysville to Oroville in 1864. The county subscribed $200,000 in bonds for its construction (Mansfield 1918:245-246). The coming of the railroad increased interest in roads leading to Oroville. The Oroville-Forbestown road was completed in 1865 (McGie 1982, I:97); a smaller road led off it to Stringtown. North of the bridge at Stringtown, a road led to Mooretown. The 1877 and 1886 Butte County maps show roads leading from Oroville to Bidwell Bar. Despite the development of roads in Oroville, in 1870, the California and Oregon Railroad was built north through the valley lands west of the Feather River from Marysville to Chico, rather than through Oroville. The railroad was given "twenty alternate sections of public land" making it a substantial landholder in the area (Robinson 1948:154). The 1886 Butte County map shows that some of this land was within and adjacent to the project area. The California and Oregon, along with its land grants, was later acquired by the Central Pacific, and ultimately the Southern Pacific.

The railroad's presence encouraged the establishment of new agricultural towns along the route (Talbitzer 1987:66-68). It opened up the wheat market for farmers and also benefited the lumber industry. In 1889, after considerable financial troubles, the California Northern was acquired by the Southern Pacific (McGie 1982, I:144-145). The acquisition of these smaller railroads by the larger Central Pacific and Southern Pacific in the upper Sacramento Valley was typical of what was happening elsewhere in California.

The first decade of the 20th century saw the construction of the Northern Electric (later the Sacramento Northern). This interurban electric railway ran between Chico and Oroville in 1906. Oroville was not on the main line but was served by a spur that ran from the Oroville depot northwest through Thermalito to Tres Vias, where passengers and freight would transfer to or from the main line. Later the interurban was completed to Marysville and Sacramento (McGie 1982, I:188). The most ambitious project was the Western Pacific's construction of a route from Salt Lake City to San Francisco through Beckwourth Pass and the steep-sided canyon of the North Fork Feather River (Vance 1995:225-230). It was a massive undertaking that involved large numbers of laborers and poured large sums into Oroville's economy. Construction began in Oroville in 1905, and construction camps were established along the route, while supplies had to be hauled into the canyon by wagons. The route was opened in the fall of 1910 (Mansfield 1918:344; Talbitzer 1987:80-81). Sections of the railroad were relocated when Oroville Dam was built.

#### *G-CUL.1.3.4 Ranching, Farming, and Settlement*

Agriculture played an increasingly important role to early settlers in the 1850s and 1860s. Some who originally came to mine turned their attention to farming and stock raising. Many of the miners had been farmers before they came to California, so it was natural that some of those who decided to stay in the Feather River area rather than return east took up their former occupations. The demand for food to supply the miners gave them an eager market in the early years. During the first few years of the Gold Rush, most foodstuffs had been freighted into the area.

Livestock raising on the ranchos had been the earliest form of agriculture in the area, predating the Gold Rush, but with the increase in population, the emphasis shifted from the hide-and-tallow trade to meat production. The first cultivated area within the project area was around Hamilton, where by 1854 there were 2,000 acres planted in wheat and barley, as well as numerous vegetable gardens (Mansfield 1918:168). There was a 2-acre Chinese truck garden in Oroville by the mid-1850s that continued to be cultivated for the next 50 years (Chan 1986:96).

Settlers were attracted to land in the foothills and in the valley, where they raised wheat, vegetables, and livestock and cultivated orchards. Given the topography of the project area, much of which is in the foothills, farms here were usually small operations that marketed any excess products but focused on subsistence agriculture. Wheat became the dominant crop in the 1850s and 1860s as the flatlands to the west of the project area were put under cultivation. As early as 1853, Bidwell had built the first flour mill in

the county on his rancho. Oroville had its first such mill in 1853 (Wells and Chambers 1882:206, 243). The arrival of the railroads in the 1860s and 1870s made it easier and less expensive to get the crops to market and led to a great increase in the acreage devoted to wheat. Butte County agriculture was no longer simply local in nature but had become part of the larger national and world market. For most of the 19th century, wheat production continued to dominate the agriculture market in Butte County, as it did that of California. At the end of the 19th century, wheat production fell as a result of soil exhaustion and the general decline of wheat-growing in California (USBC 1883:179; 1896:358; 1902:155).

By the 1880s, agriculture in Butte County and in the project area was diversifying with the increased planting of orchards and other crops. Homestead proofs provided some clarity on the type of agriculture being grown within the project area; these included grains, fruit trees, hay, green vegetables, grapevines, blackberries, as well as cattle, goats, chickens, hogs, and milk cows. Many homesteaders listed orchards on their proofs as evidence of cultivations. The deciduous trees were among the first planted in the project area. Fruit was particularly popular among the miners, so maintaining an orchard was a way for the early farmers and ranchers to make some money while supplying their own needs.

It had been established early on that citrus, especially oranges, would grow in the area, as would a number of other orchard fruits. The first citrus tree in Butte County—what came to be known as the Mother Orange Tree—was planted at Bidwell Bar in 1856. Its seeds are said to have produced successful orange trees throughout the area before it was transplanted to park headquarters (McGie 1982, I:84). In 1887 four businessmen combined land in the foothill thermal belt, which is generally located between the 300- and 1,200-foot elevations, across the river from Oroville with the water from the Miocene Ditch to form the Thermalito Colony. It was a real-estate development patterned after successful citrus colonies in Southern California. The colony was designed to sell small plots for citrus groves and other orchards with the hope of attracting new residents from southern California and the East and Midwest.

In the 20th century, the landholding pattern within Butte County underwent changes. The number of small holdings increased during this time. Between 1900 and 1930, the number of farms increased from 1,179 to 2,603, while the average size of a farm decreased from 574.3 acres to 238 acres (USBC 1902, I:62, 1932, II Part 3:518, 523). This trend was observed for the county as a whole. Additional research would be needed to determine whether this trend applied to the project area.

#### *G-CUL.1.3.5 Water Supply and Hydroelectric Power*

With the end of hydraulic mining, a number of the existing ditch systems in the region were allowed to go derelict or were converted to irrigation ditches. Frank McLaughlin's Golden Feather river-mining project of the 1890s involved the repair of the Miocene Ditch, which also became the water-supply system for the Thermalito agricultural colony, another of McLaughlin's projects. While there were purported to be 25 irrigating ditches aggregating 200 miles in 1881 (Wells and Chambers 1882:209), no locations or

names were provided. The Miocene Ditch was purchased by the Oroville Light Water and Power Company in 1901; in 1918, it was acquired by Pacific Gas and Electric Company (PG&E), which renovated and repaired the system.

With the passage of the Wright Act in 1887, the establishment of irrigation districts was permitted. In 1922, the Thermalito and Table Mountain irrigation districts were established. They purchased water from PG&E, which was to be delivered by the Miocene and Power ditches (Adams 1929:10-115; Hundley 2001:100). Additional irrigation projects were established to provide water to the valley lands west of the Feather River. In 1905, the Butte County Canal, later known as the Sutter-Butte Canal, was built from the Feather River at Hazelbusch near Hamilton. The dredging firms that controlled the rights to the river closer to Oroville refused to allow the canal to be constructed there, as it would have interfered with their operations. In 1915, the Western Canal was built west from the Hamilton Slough area, where the dredgers had finished working. It was built by the Great Western Power Company, which was searching for a market for its water from Lake Almanor (McGie 1982 I:189). Both of these canals originate in the project area.

During the first decade of the 20th century there was considerable interest in the rights to the waters of the Feather River, especially the North Fork, for use in the generation of power. Mines had been among the first users of hydroelectric power. Frank McLaughlin's Big Bend Tunnel project of the 1880s used a water-generating plant to provide electric power for the pumps and hoist. The Spring Valley Mine used electric power to provide light for its around-the-clock operations. The dredges also used electricity to power operations. Great Western Power, made up of a powerful group of California and New York investors, was engaged in developing hydroelectric power in the area, having acquired the rights to Big Meadow in Plumas County on the North Fork, which they would flood to produce Lake Almanor. Great Western Power remained the dominant hydroelectric company in Northern California until it was acquired by PG&E in 1930, which then took over the Big Bend Powerhouse and Las Plumas. Both the powerhouse and the community of Las Plumas were razed for the creation of Lake Oroville.

In 1951, the construction of a dam across the Feather River above Oroville was proposed by the State. This dam was needed in order to "control floods and collect runoff for delivery along a 750-mile route" (Hundley 2001:279). The generation of hydroelectric power was also part of the plan. Construction on Oroville Dam as part of the State Water Project (SWP) began in 1962 and was completed in 1967, creating Lake Oroville. Oroville Dam, at 770 feet, is the highest dam in the United States. It generates hydroelectric power and provides flood protection. In addition, it provides water for the southern part of the state. The construction brought an economic boom to the area, and the reservoir created a recreational area out of a great deal of the project area (McGie 1982 II:145-148).

## G-CUL.2 INVENTORY AND EVALUATION METHODOLOGY

The three cultural resource inventories (archaeology, ethnography, and historical buildings and structures) for this project were conducted from 2002 to 2004. Methods employed for these endeavors consisted of background research and field work. The pre-field efforts included visiting a number of repositories and libraries to review available published and unpublished literature, maps, and historical documents, as well as conducting oral interviews. The methods employed for each of the three studies are described below.

### G-CUL.2.1 Archaeological and Historical Inventory

#### *G-CUL.2.1.1 Background Research*

Work began with background research on the natural environment, prehistoric past, and historical development of the area. Project historians found maps of Butte County from the 1850s to the present that showed towns, roads, some of the larger mining areas, and, in some cases, the names of landowners. They also consulted other primary sources, such as census records, photographic archives, homestead proofs, and mining claims. Secondary sources—the results of historians' interpretations—helped provide a general picture of the history of the area.

One of the first tasks of the primary research effort was to identify project-area homesteads. Homesteads of 160 acres were permitted to U.S. citizens and as well as those in the process of naturalization. These records provided researchers with information about who owned the land and what improvements were made to it over time. Historic maps also provided valuable information, sometimes listing landowners' names and the presence of buildings and structures.

Background research for prehistoric archaeology included reviewing information on the natural environment prior to the Gold Rush. Information about Native American lifeways in the late 19th and early 20th centuries was also researched to assess how the Maidu people used the land before contact with settlers disrupted both the local ecosystem and the traditional way of life. Tribal members on the archaeological inventory team provided information about prehistoric Native American sites in the project area.

A records search with the California Historical Resources Information System was conducted to determine the number, locations, and types of sites that had been previously discovered and recorded within the survey area. This work also helped archaeologists design their survey strategy and ensure that the team did not unwittingly record sites that had already been identified. This extensive background research was followed by re-visits to previously recorded sites to update site information.

#### *G-CUL.2.1.2 Field Work*

The field work phase of the archaeological and historical resources inventory involved five elements:

- Re-visits to 276 previously recorded resources;
- Inventory of the 9,554-acre fluctuation zone;
- Probabilistic sample survey of about 4,800 acres above maximum pool elevations;
- Survey of 58 historical sensitive areas; and
- Inventory of about 2,000 acres associated with existing and proposed developed recreation facilities.

Archaeologists surveyed as much of the accessible fluctuation zone as possible. In 2002 and 2003, the reservoir level reached about 680 feet above mean sea level (msl), allowing for the intensive inventory of most of this land. A total of almost 7,500 acres were inventoried within the fluctuation zone.

The remaining portions of the project area (i.e., the 21,400 acres that are not inundated) were sampled to gather information that could be used to portray the area as a whole. Sample transects outside of the reservoir pool were chosen randomly to represent the area's topographic and environmental zones. These zones included grassland (2,096 acres surveyed), oak woodland (1,793 acres surveyed), and coniferous forests (918 acres surveyed). The total area inventoried in association with the probabilistic inventory (4,807 acres) represents approximately 22 percent of the available acreage.

Eventually, almost 15,500 acres of land within the APE established for the Oroville Facilities were inventoried for archaeological and historical resources.

### G-CUL.2.2 Ethnographic and Ethnohistoric Inventory

The ethnographic and ethnohistoric inventory effort was undertaken using two main research strategies. The first strategy involved interviewing knowledgeable, local Konkow-Maidu elders. Historical information from these elders was critical for developing a representative ethnohistoric perspective because many published sources do not take Maidu views into account. The second strategy consisted of the examination and review of published materials and unpublished archival resources.

Published and unpublished documents were examined to glean relevant data pertaining to the project area. General histories of Butte County and the Oroville area were used, as well as ethnographic documents, census records, and historic photos and maps. The Butte County Public Library, Meriam Library at California State University, Chico, and the California State Archives proved to be valuable sources of information during the research effort.

The ethnographic team, which consisted of anthropologists accompanied by Maidu assistants, conducted interviews with Maidu Tribes regarding information about culturally important and/or sensitive locations in the Oroville Facilities project area. The interviews were designed to directly address locations about which contemporary Maidu

have concerns. Many consultants, who included members from Berry Creek, Enterprise, and Mooretown rancherias, participated in multiple interviews. The interview sessions were open-ended, with the goal of encouraging the consultant to have a free flow of memory. Additionally, the ethnographers and elders made a number of field trips, many of them day-long, into the project area and its surroundings to identify important places and discuss cultural values and concerns. A total of 88 oral interviews were conducted and documented in association with the inventory of ethnographic and ethnohistoric resources.

#### *G-CUL.2.2.1 Area of Potential Effects for Ethnographic and Ethnohistoric Resources*

As noted in Section 5.9.1.3, the APE for ethnographic and ethnohistoric resources was expanded beyond the FERC project boundary to include Stringtown Mountain, and was extended up the Middle Fork Feather River and Bald Rock Canyon to the base of Bald Rock Dome (see Figure G-CUL.2-1). Bald Rock Canyon is a focus of mythological importance to the Konkow-Maidu people. The APE was extended to include this significant cultural area, including the 25-foot-high falls at the head of the canyon. These falls were the terminus of the salmon run along the Middle Fork. Bald Rock Dome is significant mythological site that is associated with a number of stories told by the Konkow-Maidu.

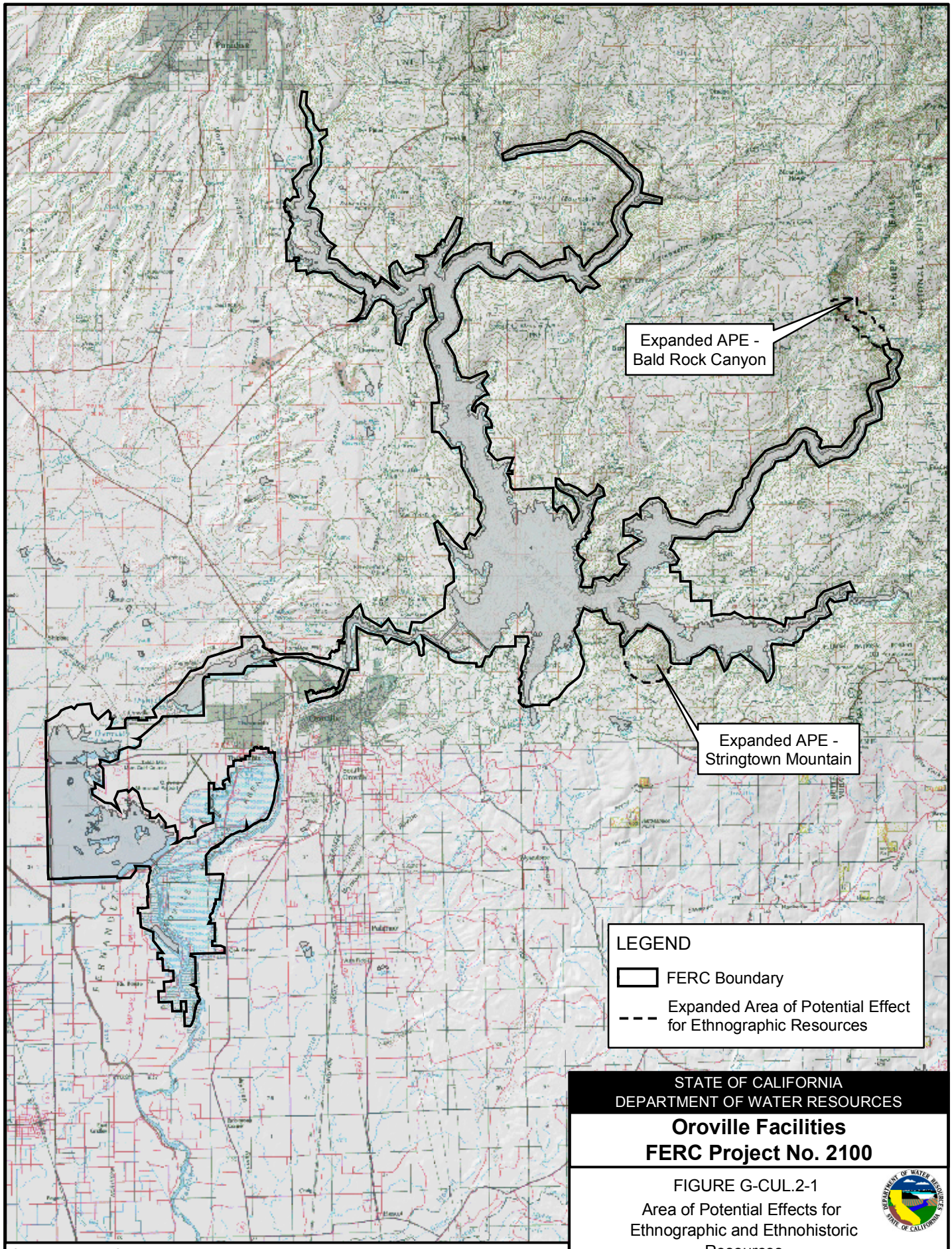
Stringtown Mountain, located just south of the former town of Enterprise, is adjacent to the south bank of the South Fork Feather River. Stringtown Mountain is a mythological site. The town of Enterprise was inundated when Lake Oroville was filled. Also in this area is Enterprise Rancheria No. 2, which was the site for many traditional gatherings and ceremonies. The town was also a major draw for shopping and socializing. The trails from Enterprise connect to many other parts of Maidu territory.

#### *G-CUL.2.2.2 Historical Buildings and Structures Inventory and Evaluation*

The historical buildings and structures associated with the Oroville Facilities consist of 16 discrete elements; of these,14 are considered contributors to a proposed National Register district, and 2 are noncontributors. The elements were divided into three main categories: water resource infrastructure (both water storage and conveyance facilities), power facilities, and supplemental facilities. These resources were built by the California Department of Water Resources (DWR) between 1961 and 1974 as part of the Oroville Division of the SWP. The SWP is operated by DWR, with the exception of one facility that is jointly operated by DWR and DPR. The proposed National Register district includes seven dams, three power plants, two operations-maintenance complexes or annexes, and numerous gauging stations and communication posts spread throughout the APE.

##### <u>G-CUL.2.2.2.1 Water Storage and Conveyance Facilities</u>

The most numerous and massive elements of the proposed district are the seven dams associated with the Oroville Facilities. These resources include Oroville Dam, Bidwell




Sources: Helen McCarthy, Ethnographer, 2004, DWR 2004

17,000 8,500 0 17,000 Feet

Original Scale 1 : 204,000
1" = 17,000 feet

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities**
**FERC Project No. 2100**

FIGURE G-CUL.2-1
Area of Potential Effects for Ethnographic and Ethnohistoric Resources

| Prepared by | Date | |
|---|---|---|
| LC -- EDAW | 11/23/04 | x:/Projects/2000/0S016.88/OroPDEA_G-CUL.2-1.mxd |

Bar Canyon Saddle Dam, Parish Camp Saddle Dam, Thermalito Diversion Dam, Fish Barrier Dam, Thermalito Forebay Dam, and Thermalito Afterbay Dam.

Oroville Dam is the key storage facility in the SWP. Construction of this structure began in 1961 and ended in 1968. It is 770 feet tall from excavated streambed to crest, which sits at an elevation of 922 feet above msl. The crest is 50.6 feet wide with a slight upstream curve, and spans 5,600 feet between the gated spillway and the left abutment. In profile, the dam is of a triangular shape with a massive concrete core block, and is divided into five different zones of earth and rockfill totaling 80 million cubic yards. Oroville Dam has the capacity to impound 3,538,000 acre-feet (af) of Feather River water in the reservoir. This structure was determined to be individually eligible for listing in the National Register of Historic Places (NRHP) and to represent a contributing element of the proposed historic district.

Bidwell Bar Canyon Saddle Dam, built between 1966 and 1968, is actually two separate rock-and-earth embankments that encompass the former Miners Ranch Dike built by the Oroville-Wyandotte Irrigation District (now known as the South Feather Water and Power Agency) as part of its South Fork Project. The west dam is 24 feet tall with an upstream slope of 2.5 to 1 and the downstream slope of 2.0 to 1. The fill for the dam was homogenous with the exception of a horizontal blanket drain on the downstream side, a compact rockfill upstream toe, and rock slope projection. Three zones were used to construct the main dam, and riprap lines the upstream slope.

Parish Camp Saddle Dam was also constructed between 1966 and 1968. This dam is located 12 miles northwest of Oroville Dam, in the Parish Camp Saddle Recreation Area. The dam is an earth-and-rockfill embankment, extending 260 feet across Lime Saddle. Reaching 27 feet in height with a 30-foot-wide crest, the dam has a main impervious core that makes up most of the embankment.

Thermalito Forebay Dam and Thermalito Afterbay Dam were both constructed between 1965 and 1968. Both dams are located offstream and impound bodies of water that are used in conjunction with the project. Thermalito Forebay Dam is 15,900 feet long, running from the terminus of the Thermalito Power Canal to the headworks of the Thermalito Power Plant. The dam varies in height from 91 feet to 25 feet depending on the terrain it crosses. The dam is composed of two high sections, often referred to as the main dam and Ruddy Creek Dam. Thermalito Afterbay Dam is 42,000 feet long and is roughly L-shaped in plan, with a triangular profile. Varying in height from 39 feet to 24 feet, the crest is 30 feet wide, is unpaved, and sits at an elevation of 142 feet above msl. Incorporated into the overall design of Thermalito Afterbay Dam is a small saddle dam that is 1,000 feet long and 12 feet high. Except for its lower height, it is virtually indistinguishable from the main Thermalito Afterbay Dam.

The two diversion dams located in the APE are Thermalito Diversion Dam and the Fish Barrier Dam. These resources sit in close proximity to each other, located approximately 0.25 mile apart on the Feather River. Thermalito Diversion Dam was constructed between 1962 and 1968 of reinforced concrete. The dam is approximately 1,300 feet long, extends 143 feet above the foundation, and incorporates a gated

spillway, a canal-regulating headworks structure, an earth embankment at the right of the canal headworks, and a small power plant at the dam's left abutment. The Fish Barrier Dam is approximately 600 feet long and varies in height from 148 to 181 feet above the river bed. Sited on bedrock, the dam is constructed of 18 reinforced concrete monoliths ranging from 25 to 35 feet in length. The purpose of the Fish Barrier Dam is to prevent fish from swimming upstream. The designs of both diversion dams allow them to be overtopped during high flows, so they do not have separate spillways.

#### G-CUL.2.2.2.2 Power Facilities

The power facilities consist of three hydroelectric power plants that use water stored in Lake Oroville, Thermalito Forebay, and Thermalito Afterbay. These plants produce an output of 725 megawatts (MW) of power. Only two of the plants, the Hyatt Pumping-Generating Plant and the Thermalito Pumping-Generating Plant, are contributors to the proposed historic district. The third power plant, located in the left abutment of the Thermalito Diversion Dam, was constructed in 1989 and is a noncontributor to the proposed district.

The Hyatt Pumping-Generating Plant was constructed between 1963 and 1969. It is located in and beneath the left abutment of Oroville Dam. The Thermalito Pumping-Generating Plant was constructed between 1964 and 1969. This power plant is located above ground at the terminus of the Thermalito Power Canal and Thermalito Forebay. Both plants operate on the pumped-storage principle. They generate power during the high-demand hours, and then pump back water from the forebay to the reservoir during the off-peak hours.

#### G-CUL.2.2.2.3 Supplemental Facilities

The category of supplemental facilities is broad and includes several buildings. These facilities include the Oroville Operations and Maintenance Complex, the Oroville Area Control Center and Switchyard, the Feather River Fish Hatchery, and the visitor centers.

The Oroville Operations and Maintenance Complex, constructed between 1968 and 1969, hosts a range of capabilities including administration, maintenance, engineering, plant maintenance, civil maintenance, and water operation facilities. This facility is classed by function to include maintenance building complexes, subcenters, and single-function maintenance centers. Structures within the subcenter category include the Thermalito Operation and Maintenance Annex at the Thermalito Pumping-Generating Plant site. The last category of buildings is the small, single-use buildings confined to one purpose with limited capability, such as the Thermalito Afterbay Outlet facility on Thermalito Afterbay Dam.

The Oroville Area Control Center and Switchyard, the only control center located within the Oroville Facilities, is set at the base of the left abutment of Oroville Dam. This facility is the primary operating and dispatch center for both the Hyatt and Thermalito Pumping-Generating Plants and all of the hydraulic appurtenances in the Oroville Facilities.

The Feather River Fish Hatchery is considered the most unique of the supplemental facilities. Constructed from 1962 to 1967, this facility is located on the north side of the Feather River, on both the east and west side of Table Mountain Road. DWR constructed the facilities to provide a complete fish hatchery with the ability to trap, hold, and use for spawning the approximately 9,000 Chinook salmon and 1,000 adult steelhead trout that annually migrate upstream in the Oroville area. This facility includes administration, operation, and maintenance buildings; a gathering tank; four holding tanks; a spawning-hatchery building; an aerator; rearing channels; and a rest pool.

Three visitor centers are incorporated into the design of other facilities and consist of a center in the Hyatt Pumping-Generating Plant powerhouse, one in the Oroville Area Control Center, and the last at the Feather River Fish Hatchery. The centers at Hyatt Pumping-Generating Plant and the Oroville Area Control Center are no longer open to the public because of security concerns.

The remaining visitor center is at Kelly Ridge. This center was constructed between 1972 and 1974. It is composed of two buildings and one structure, and is located east of Oroville Dam on Kelly Ridge Road. The facility is jointly owned and operated by DWR and DPR, and serves a dual purpose as the main visitor center for the Oroville Facilities of the SWP and the Lake Oroville State Recreation Area. Unlike other DWR facilities in the SWP, this building does not conform to the architectural guidelines developed for buildings and structures in the project, although it is contemporary in style. The complex is arranged in a radial plan around a central courtyard, with the main visitor facility located on the southwest portion of the complex, an observation tower on the east side, and a former restaurant/gift shop on the northeast.

#### G-CUL.2.2.2.4 Evaluation of Buildings and Structures

The eligibility criteria for listing in the NRHP are codified in 36 Code of Federal Regulations Part 60.4. Eligibility rests upon twin factors of significance and integrity. A property must have both to be considered eligible for listing in the NRHP. Loss of integrity, if sufficiently great, will overwhelm the historical significance of a resource and render it ineligible. Likewise, a resource can have complete integrity, but if it lacks significance, it must also be considered ineligible.

Historical significance is judged by the application of four criteria:

- Criterion A: Association with “events that have made a significant contribution to the broad patters of our history”;
- Criterion B: Association with the “lives of persons significant in our past”;
- Criterion C: Resources “that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction”; and

- Criterion D: Resources "that have yielded, or may be likely to yield, information important to history or prehistory."

Integrity is defined as the retention of the physical identity that existed during the resource's period of significance. Integrity is evaluated with regard to retention of location, design, setting, materials, workmanship, feeling and association.

The eligibility criteria for listing a property in the California Register of Historical Resources (CRHR) closely parallel those of the NRHP. Each resource must be determined to be significant under the local, State, or national level under one of four criteria to be determined eligible. These criteria are paraphrased below:

- Criterion 1: Resources associated with important events that have made a significant contribution to the broad patterns of our history;
- Criterion 2: Resources associated with the lives of persons important to our past;
- Criterion 3: Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master; and
- Criterion 4: Resources that have yielded, or may be likely to yield, information important in prehistory or history.

Assessing the significance of a complex such as the proposed Oroville Division Historic District involves consideration of a number of special factors that are not often found with single buildings, structures, sites, or objects. The historic significance of the facilities is best understood when the resources are treated as a district, because the significance rests on the group of resources as a whole. The sheer scale of the district places it in a special category, as does the history of its planning and construction, and its place in the history of water development in the State of California. Moreover, it is a rare example of a resource that was directly and specifically approved by a statewide vote of the people.

The Oroville Facilities were determined to be eligible for listing under NRHP Criteria A and C and the CRHR counterpart Criteria 1 and 3. While the facility is not yet 50 years old, its place in California's history and the importance of its engineering achievement make its eligibility possible under Criterion Consideration G, which provides an opportunity for more recent resources with exceptional significance to be included in the NRHP.

## G-CUL.3 RESOURCE CATEGORIES

The archaeological and ethnographic inventories conducted in 2002 and 2003 resulted in the identification of 897 prehistoric and historic-era sites and 144 ethnographic and ethnohistoric locations. The following subsections describe the resource categories identified during these inventory efforts.

### G-CUL.3.1 Types of Prehistoric Archaeological Sites

Seven categories of prehistoric archaeological sites were expected to occur within the APE for the Oroville Facilities:

- Open-air residential sites;
- Caves and rock shelters;
- Limited lithic scatters;
- Rock art;
- Quarries and workshops;
- Bedrock milling sites; and
- Cemetery areas.

Open-air residential sites are also sometimes referred to as villages or base camps. The larger versions are more commonly called villages, smaller ones temporary camps. Typically, these sites may include communal ceremonial structures, midden deposits, house or storage pits, cooking features, ground stone, and a generally wide variety of artifacts. These sites tend to be located near creeks and streams; many open-air residential sites are presumed to lie within the inundated portions of Lake Oroville. Approximately 33 percent of the prehistoric sites recorded in 2002 and 2003 are assigned to this site category.

Cave and rock shelter sites are those occupation sites that are protected by a cave or rock overhang. Preservation of organic materials is more likely at these sites than at open-air residential sites where deposits are more commonly buried. These types of sites also lend themselves to the creation of rock art—a separate site category. Less than 1 percent of the sites within the APE are located within caves or rock shelters.

Limited lithic scatter sites are those sites that contain a sparse deposit of flakes that may be from one or more parent material. Frequently, these have been identified as temporary camps or secondary workshop areas. Because of their nature (i.e., small and sparse), these sites can be overlooked during archaeological field surveys. Approximately 30 percent of the prehistoric sites are considered to be limited lithic scatters.

Rock art sites are locations where a suitable outcrop surface has been decorated with one or more petroglyphs. These sites are frequently associated with larger occupation areas and/or are near watercourses. Less than 1 percent of the documented prehistoric sites contain rock art elements.

Quarry and workshop sites are locations where raw lithic materials such as chert, basalt, rhyolite, or obsidian have been extracted and, frequently, processed to some

degree before transportation to another location. Quarries are located at the stone source, and these initial reduction areas are generally nearby. Similarly, groundstone workshops tend to be found near raw material sources such as granite or steatite outcrops. As with the other miscellaneous site types, less than 1 percent of the documented prehistoric resources match this site category.

Bedrock milling sites are generally associated with oaks or other seed-producing trees, both in association with occupation sites and in isolation. These sites are ubiquitous throughout Northern California and can occur as single cupules or outcrops with 50 mortar holes or more. Sites assigned to this category represent approximately 36 percent of the prehistoric site total.

Cemetery areas are those locations containing evidence of multiple human burials. These sites are generally located within or in proximity to residential sites, but can occur as isolated resources. Native American cemeteries are unmarked and therefore are difficult to locate unless they are exposed during planned excavation, by erosional forces, or by the activities of looters. Less than 1 percent of the 325 documented prehistoric sites are considered cemetery areas.

Occasionally, sites are found that were clearly used by Maidu people in the 19th century, after settlers had moved into the area. Glass trade beads and fragments of bottle glass mark these places, which are especially important as they hold invaluable information on this brief episode in Maidu history.

Because of the excellent visibility within the fluctuation zone, where vegetative cover was virtually nonexistent, most of the prehistoric-era resources were found within this area, which is also generally situated closer to the major watercourses. Based on the inventory results within the fluctuation zone, six prehistoric site classes have been defined. These classes take into consideration site size, archaeological assemblages, and other attributes:

- Class 1 sites represent substantial prehistoric settlements. These are generally large sites containing a diverse assortment of flaked and ground stone items. More than 50 percent of these sites contain steatite sherds and evidence of midden soils.

- Class 2 sites are slightly smaller than Class 1 resources, always include bedrock mortars, and contain slightly less diverse artifact assemblages than the preceding class. Structural depressions, found commonly in Class 1 sites, are less frequently found at Class 2 sites, again suggesting less intensive occupation.

- Class 3 sites are similar to the preceding classes, but lack bedrock mortars. Other differences between these sites and Class 2 sites include the fact that milling stones are twice as common while pestles are far less common. These sites may represent a period of use that is different from the preceding site classes.

- Class 4 sites are relatively small sites that always include bedrock mortars. Artifact assemblages are less complex than at the preceding site classes, with hand tools fairly common but flaked stone tools and debris comparatively rare. These sites are believed to represent more ephemeral use, although structural remains and midden deposits can occur at Class 4 sites.

- Class 5 sites are defined as relatively large sites that never contain bedrock mortars or evidence of house features, and rarely include midden deposits. These sites may have served as camps used for the procurement of various plant and animal resources.

- Class 6 sites are relatively small, and contain only one or two artifact types. Most of these sites contain bedrock mortars, and appear to have served as limited activity or procurement locations associated with larger residential sites.

More intensive archaeological investigations are needed to clarify and refine the nature and relevance of site categories, and gather more specific data on the number, nature, age, and distribution of these diverse site types.

### G-CUL.3.2 Types of Historic-Era Archaeological Sites

The historic archaeological sites identified within the APE are associated with one or more of the following historic themes:

- Transportation;
- Settlement;
- Mining;
- Water systems;
- Industry and commerce;
- Agricultural development; and
- Other.

Transportation properties such as trail systems, road systems, and railroads have all left marks on the landscape. More ephemeral locations, such as ferry crossings, may be identified through documentary sources, but stone walls, tracks, watering troughs, bridges, trestles, tunnels, etc., may all mark portions of a transportation system. Approximately 32 percent of the documented historic-era sites are primarily transportation properties.

Settlement properties are those sites containing the remains of residences, shelters, other structures, or refuse deposits containing domestic debris. Other evidence of settlement can include features such as fences or landscaped elements such as

gardens and orchards. Approximately 28 percent of the historic resources were associated primarily with the settlement theme.

Mining properties include a wide range of features and structures left behind by exploration, extraction, or processing activities. Physical indications of mining activity might include exploration pits, trenches, claim markers, historic artifact deposits, camp remains, adits, shafts, waste material piles, mining tools, ditches or flumes, or milling equipment. Twenty-two percent of the recorded historic-era sites are related primarily to mining.

Water systems were established by miners and settlers moving into the area. Collection, storage, and transportation of water began on a small scale to meet the needs of individuals, were enlarged for subsequent mining and agricultural operations, and grew to become the hydroelectric generation facilities that are a large part of the landscape today. Wells, pumps, cisterns, ponds, reservoirs, ditches, flumes, gates, dams, and transmission lines are all features associated with the collection and use of water. Approximately 13 percent of the historic-era resources are related primarily to the use, storage, or transport of water.

Industrial/commercial properties might include commercial quarries, mills, kilns, smithies, or other processing structures. Sites containing evidence of commercial timber harvesting are also within this category. Telephone and telegraph lines might be found connecting these locations. About 2 percent of the historic sites are consistent with industrial or commercial activities.

Agricultural properties were operated on a small scale in the project area until the 1880s, after which more developed commercial practices were instituted. Examples of agricultural properties include houses (or their remains) and outbuildings, harvesting machinery, storage buildings, walls or fences, orchards, corrals, water systems, and refuse dumps. Approximately 1 percent of the documented sites in the APE were assigned primarily to this theme.

Other historic-era resources include two contact-period resources and six commemorative monuments.

Because of the substantial overlap in historic themes that may be represented at any given location, different percentages are derived when all themes, not just the primary theme, are considered at each site. When assessing the range of themes represented at each resource, the following percentages are derived:

- Transportation—31 percent;
- Settlement—26 percent;
- Mining—19 percent;
- Water systems—18 percent;

- Industry and commerce—2 percent;
- Agricultural development—2 percent; and
- Other—1 percent.

### G-CUL.3.3 Types of Ethnographic and Ethnohistoric Resources

The ethnographic and ethnohistoric inventory resulted in the identification of 144 locations of cultural importance in or near the APE. These locations were divided into 14 categories or site types:

- Villages;
- Cemeteries;
- Camps;
- Fishing grounds;
- Spawning grounds;
- Hunting grounds;
- Gathering areas;
- Swimming holes/picnic sites;
- Ceremonial sites;
- Mythological sites;
- Petroglyphs;
- Historic event/battle sites;
- Trails; and
- Place names.

Villages are residential locations where people lived for substantial periods of the year. Food and other materials were stored and used at these locations. Usually there is a traditional Maidu name associated with these places. Archaeological sites may be found in conjunction with these locations.

Cemeteries are those places where the Maidu buried their dead. Some of these sensitive places have been used for many generations, up to and including the present.

Camps are places to which people customarily moved on a seasonal basis for the gathering of specific resources. Some of these places have Maidu names.

Fishing grounds are locations that the Maidu found to be especially favorable for fishing. They returned to these locations on a regular basis to catch fish—an important component of both the Maidu diet and Maidu life.

Spawning grounds are locations along the main forks and branches of the Feather River where salmon or other fish spawned. As locations of renewal of essential resources, these places are particularly important to the Maidu.

Hunting grounds are where animals were hunted or trapped for food, furs, and other materials.

Gathering areas are locations where people carried out plant gathering activities. These locations were used for a specific purpose, and were not generally used for residential purposes. There may be Maidu names for these places.

Swimming holes/picnic sites are places that families would go to enjoy recreational pastimes. These locations and casual activities provided opportunities to pass on Maidu culture to younger generations.

Ceremonial sites are locations where individual Maidu or Maidu groups practiced traditional ceremonies.

Mythological sites are elements of the landscape that are associated with myths, legends, or cosmological events important to the Maidu. These places often have Maidu names, and are sometimes perceived as dangerous places because of the powerful spirits that may occupy these locations.

Petroglyphs are locations where figures or shapes are incised into rock. They are generally thought to relate to the spiritual world.

Historic event/battle sites are places where a historic event involving the Maidu occurred. Many of these locations are the sites of battles or other conflicts with Euroamericans occurred.

Trails connect people with the larger community and resources scattered across the landscape. Connections between people and places were central to Maidu life, making trails a critical component of the cultural landscape.

Place names are the names associated with important geographic features such as river forks, mountains, and prominent outcrops. They help people associate with the natural world, identify where they are, and navigate from place to place.

The locations of these various resource types are not evenly distributed across the landscape. To enable assessment of the geographic distribution of these categories,

the project area was divided into six zones. The distribution of site categories across these six geographic zones is indicated in Table G-CUL.3-1.

**Table G-CUL.3-1. Geographic distribution of ethnographic site types.**

| Site Category | Zone 1—West Branch | Zone 2—North Fork | Zone 3—Main Reservoir | Zone 4—Middle Fork | Zone 5—South Fork | Zone 6—Downstream of Dam | Total |
|---|---|---|---|---|---|---|---|
| Village | 4 | 5 | 9 | 1 | 3 | 8 | 30 |
| Cemetery | - | - | 1 | - | 2 | - | 3 |
| Camp | - | 2 | - | - | - | 1 | 3 |
| Fishing Ground | 3 | 7 | 2 | 9 | 6 | 2 | 29 |
| Spawning Ground | 1 | 6 | 2 | 3 | - | - | 13 |
| Hunting Ground | 1 | - | - | 1 | - | - | 2 |
| Gathering Area | - | - | - | 3 | 4 | - | 7 |
| Swimming Hole/Picnic Area | 2 | - | 1 | - | 4 | - | 7 |
| Ceremonial Site | - | - | 2 | - | - | - | 2 |
| Mythological Site | - | 1 | 2 | 5 | 3 | 1 | 12 |
| Petroglyph | - | - | 1 | - | 1 | - | 2 |
| Historic Event | - | - | 2 | - | - | - | 2 |
| Trail | - | 1 | 2 | 3 | 5 | - | 11 |
| Placename | 7 | 5 | 2 | 3 | 2 | 2 | 21 |
| **Total** | **18** | | | | | | **144** |

*Source: DWR 2004b*

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