

## 4.7 CULTURAL RESOURCES

### 4.7.1 INTRODUCTION TO CULTURAL RESOURCES

This section analyzes the potential effects of the project upon cultural resources, and where applicable, provides mitigation measures to reduce or avoid these impacts. The term “cultural resources” in this analysis encompasses prehistoric and historical archaeological sites, historical structures, paleontological resources (fossils), and sites of traditional or cultural significance to Native Americans and accessibility of these sites to Native American groups.

The primary data source for archaeological and historic resources is a series of summary reports prepared by PAR Environmental in 1998 and 2000 for Pacific Gas and Electric Company. These studies generally consist of records checks from appropriate California Historic Resources Inventory System (CHRIS) Information Centers. However, records checks have not been completed by PAR Environmental in all cases: some reports include literature surveys of existing reports, including timber harvest plans and cultural resources management plans and resources inventories for FERC licenses. The data from the PAR Environmental Reports were not employed uncritically in this document as comprehensive site inventories; rather, these data were used as an assessment of potential sensitivity of areas for cultural resources. Some verification of summary report data was undertaken, such as consulting existing management plans, and contacting USFS Forest Archaeologists. In some cases, discrepancies were noted between the site coverage for the summary reports, and the project boundaries, and site survey coverage in general is not defined. While in many cases, areas have been described as “100 percent” surveyed, the methods, and therefore the actual extent of coverage, is not entirely known.

Additionally, while the Proponent’s Environmental Assessment prepared by Pacific Gas and Electric Company noted in many cases that no sites in a given area were listed on the National Register of Historic Places (NRHP), PAR Environmental’s summaries stated that some sites were determined by investigators and/or other agencies to be eligible for the NRHP. Further, many of these reports provide no indication of whether sites or structures were ever evaluated by any party for NRHP or California Register eligibility. In the local setting sections below, cultural resources with known eligibility or listing status (i.e., known to be eligible or listed, or known not to be eligible) are described as such: for any resources for which no status is provided, no evaluation is known to have occurred. Therefore, the absence of an NRHP-listed resource does not necessarily mean that no eligible or potentially eligible resource exists within a given area; only that none have been listed, or that none have been evaluated.

Other data employed in this analysis include, where available, cultural and heritage resources management plans, cultural resources inventories, and ethnographic investigations. While the majority of these reports were also prepared by consultants under the direction of Pacific Gas and Electric Company, one must recognize that no other party has the same degree of interest in preparing—or resources to prepare—these reports for lands owned and/or operated by Pacific Gas

and Electric Company. Many reports prepared for FERC license renewal or related processes have also undergone review by other agencies, such as the California State Office Of Historic Preservation (SHPO).

A particular effort to address Native American concerns also informs this analysis. A Sacred Lands File Check was completed by the Native American Heritage Commission (NAHC), and a consultation effort was conducted with applicable Native Americans groups (as determined by the NAHC), who are, for the purposes of this analysis, considered to be experts regarding historically, traditionally, or culturally significant lands and resources, as well as the current status of access to these resources. While different members of the same cultural group may cite different resources of concern, this does not constitute a contradiction: generally, no one spokesperson represents a particular group, and it is for this reason that the NAHC list may contain several members of the same cultural group. Ethnographic, archaeological, and historical data collected during this effort was incorporated into this analysis where appropriate. Further, reports such as ethnographies were consulted, when they are available: although many of these studies were prepared by consultants for Pacific Gas and Electric Company, many cannot be replicated, because the informants interviewed for these reports have since died.

During the scoping process, public commentors, particularly Native American groups, raised concerns about specific resources, and these are addressed to the extent feasible.

The scoping process also identified concerns regarding other resources of importance to Native Americans, such as plants and animals with traditional or historical uses to Native Americans, and fisheries. Analyses of the project's impact upon plants and land animals is provided in Section 4.5, Terrestrial Biology. Fisheries are analyzed in Section 4.4, Fisheries and Aquatic Biology. Questions regarding Pacific Gas and Electric Company's ownership of Project Lands were also raised during the scoping process; however, they are beyond the scope of this EIR, and are not considered here.

### **4.7.2 SYSTEM-WIDE REGULATORY CONTEXT**

The following Federal and State regulations and policies provide a portion of the framework for this analysis, or provide a context for mitigating impacts to particular resources.

#### **4.7.2.1 Federal Regulations and Policies**

##### **The Native American Graves Protection and Repatriation Act**

The Native American Graves Protection and Repatriation Act (NAGPRA) established that human remains, associated grave goods, and items of cultural patrimony (items owned by the tribe, which individuals had no right to sell) held by Federally-funded and assisted institutions are to be returned to affiliated Federally recognized American Indian tribes. This law also established protection of Native American burials and associated grave goods.

### **The National Historic Preservation Act of 1966**

The National Historic Preservation Act of 1966, established the National Register of Historic Places (NRHP), which is the official Federal list of cultural resources that have been nominated by State Offices as being historically significant at the local, State, or national level. Properties listed in the NRHP, or “determined eligible” for listing, must meet certain criteria for historical significance and possess integrity. Significance may be found in four aspects of American history or prehistory recognized by the NRHP Criteria:

1. Association with historical events or activities;
2. Association with the lives of important persons;
3. Distinctive design or physical characteristics; and
4. Potential to provide important information about prehistory or history.

To be eligible, a property must meet at least one of the criteria. Qualities of integrity must also be evident, measured by the degree to which the resource retains its historical location, design, setting, materials, workmanship, feeling, and association, and also the degree to which the resource or landscape conveys its historical character; the degree to which the original fabric has been retained; and the level of irreversibility of changes to the property.

### **National Forest Land and Resource Management Plans**

#### ***Eldorado National Forest Land Management Plan***

Portions of the Drum and Motherlode Regional Bundles are located in the Eldorado National Forest. Primary forest resources particularly important to El Dorado County include forest products such as timber, range and minerals, energy resources such as hydroelectric and wood, as well as recreational opportunities. Cultural and historical resources are also important resources found within the Eldorado National Forest. The Cultural Resources Management program of the Forest is based on inventory, evaluation and enhancement of cultural sites.

#### ***Lassen National Forest Land and Resources Management Plan***

Portions of the Shasta Regional Bundle are located in the Lassen National Forest, and adjacent to lands managed by the USFS Hat Creek Ranger District, and the Almanor Ranger District. Cultural and historical resources on these lands are managed under the Lassen National Forest Plan. Forest goals and policies relating to cultural resources include the protection and preservation of cultural properties, insurance that actions are not detrimental to Native American religious rights and practices, and presentation of cultural information to the public for education and enjoyment (USFS, 1992).

#### ***Plumas National Forest Land and Resources Management Plan***

Portions of the DeSabra Regional Bundle are located in the Plumas National Forest, and adjacent to lands managed by the USFS Oroville Ranger District, Management Area #5 Bucks, Quincy Ranger District Management Area #19 North Fork, and Management Area #26 Butt Lake. The Plumas

National Forest Land and Resources Management Plan requires that cultural resources inventory within and adjacent to a resource-use project be conducted prior to activity, according to a schedule that will result in Forest-wide inventory within the legislated period. It also makes provisions to protect or evaluate all cultural properties and manage, according to law, all significant cultural properties. It requires consultation with the appropriate interested parties regarding disposition of discovered resources. The plan also establishes selected historical and National Register Interpretive sites that typify cultures, lifestyles, and events of the Northern Sierra for Forest visitors. Provisions are made for location and management/protection of important Native American religious and gathering areas and other traditional ethnic use areas.

##### ***Sequoia National Forest Land Management Plan***

Portions of the Kings Crane-Helms Regional Bundle are located in the Sequoia National Forest. Cultural resources in the Sequoia National Forest include prehistoric and historical Native American sites, locations related to the practice of Indian religion, and historical properties. Objectives of cultural resource management include development and implementation of a long-term program to inventory, evaluate, protect and enhance cultural resources on forest lands.

##### ***Shasta National Forest Land and Resources Management Plan***

Portions of the Shasta Regional Bundle are located in the Shasta National Forest, and adjacent to lands managed by the USFS Shasta Lake Ranger District. Cultural and Historical Resources on these lands are managed under the Shasta-Trinity National Forest Plan. Forest goals and policies relating to cultural resources include implementing mitigations for the protection of heritage resources, conducting archeological and ethnographic surveys, and consultation with Native Americans for management direction. In addition, all road and trail construction must be approved by a Forest Manager, as well as prohibition of off road vehicles.

##### ***Sierra National Forest Land Management Plan***

Portions of the King Crane-Helms Regional Bundle are located in the Sierra National Forest. Cultural resources in the Sierra National Forest include archaeological, historical and architectural sites, and places of value to ethnic groups. Not more than 10 percent of the Forest has been reliably inventoried. A regional cultural resources overview identifies deficiencies in the cultural resource database, and sets directions for future studies. Avoidance of impacts to cultural resources is preferred, but mitigation measures are defined for situations where impacts are unavoidable. Forest policy includes consultation with local Native Americans in regard to archaeological site identification, evaluation and management, and in regard to forest management practices that could affect traditional food, medicinal and basketry resources.

##### ***Stanislaus National Forest Land Management Plan***

Portions of the Motherlode Regional Bundle are located in the Stanislaus National Forest. Stanislaus County Forest policy is premised upon consultation with Native Americans. The policy

is intended to protect cultural resources in the forest, especially those related to Native Americans. Recommended practices include creating partnerships with tribal governments, developing greater understanding of traditions and beliefs and governing laws, and developing research and environmental programs to meet Native Americans' objectives.

#### 4.7.2.2 State Regulations and Policies

##### **The California Register of Historic Resources (Section 5020 *et seq.* of the California Public Resources Code)**

In 1992, the California legislature established the California Register of Historic Resources based on the Federal model which established the NRHP (National Historic Preservation Act of 1966). The California Register is to be used a guide by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The California Register, as instituted by the California Public Resources Code (PRC), includes all California properties already listed in the NRHP and those formally determined to be eligible, as well as specific listings of State Historic Landmarks and State Points of Historic Interest (Public Resources Code [PRC] Section 5024.1[d]). The California Register may also include various other types of historical resources which meet the criteria for eligibility.

The California Register may also include historical resources that have been nominated for listing in accordance with specified procedures and determined by the State Historic Resources Commission (the Commission) to be significant (PRC 5024.1[e]). The types of resources that may be included in the California Register pursuant to the nomination process, with the concurrence of the Commission, include:

1. Individual historical resources;
2. Resources that contribute to the significance of an historical district;
3. Resources identified as significant in historical resource surveys.
4. Resources identified as city or county historical landmarks pursuant to ordinance, if the State Office of Historic Preservation (State Office) has determined that the criteria used for designation are consistent with the California Register criteria adopted by the Commission; and
5. Local landmarks or historical properties designated under any municipal or county ordinance.

If the owner of the property objects to the nomination, and the property is not listed in the California Register for that reason, the Commission may then formally designate the property as *eligible* for listing (PRC 5024.1(f)(5)) and it would thereby be entitled to the same level of concern for preservation.

### **California Senate Bill 297 (1982)**

This bill addresses the disposition of Native American burials in archaeological sites. The code protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. It has been incorporated into Section 15064.5 of the State CEQA Guidelines.

### **4.7.3 SYSTEM-WIDE SETTING**

#### **4.7.3.1 Paleontological Resources**

Geologic units containing fossils are present in some locations in the system. Most of the rock units containing fossils are sedimentary rocks associated with seas that covered most of California during the Mesozoic and early Paleozoic (about 136 to 290 million years ago). In the Shasta Regional Bundle, rocks adjacent to the Butt Valley Reservoir land and extending west to the east side of the Humbug Valley land area contain Mesozoic rocks associated with the Swearingen formation (CDMG, 1960). The Swearingen is rich in organic carbon and contains abundant impressions of pecten-like shells one to two inches in diameter (Durrell, 1982). Rocks on the east side of Butt Valley Reservoir are Shoo Fly formation, which may have fossiliferous components (CDMG, 1960; Durrell, 1982). In the DeSabra Regional Bundle, the DeSabra land area west of Paradise Reservoir is situated on rocks of the Monte de Oro and Chico formations. The Monte de Oro formation is also present in the Coal Canyon land area (CDMG, 1992). The Monte de Oro formation contains a variety of shells of marine animals, mostly broken, and abundant remains of a large variety of land plants. Fossil shells of marine organisms (nautiloids, in particular) are plentiful in the Chico formation (Durrell, 1987). The Monte de Oro formation occurs in only a few small locations in the Sierra Nevada foothills, all in the vicinity of Lake Oroville (Durrell, 1982; CDMG, 1992). In the Drum Regional Bundle, north-northeast of Fordyce Lake are small areas of Triassic Sailor Canyon formation, a fossiliferous limestone. Much larger areas of Sailor Canyon are present throughout the western slopes of the Sierra Nevada (CDMG, 1992).

By Cenozoic time (about 65 million years ago), the landscape of the Sierra Nevada changed from the deep oceans to shallow, lagoon-lined sea along the foothills. Some tertiary (about 11 million years ago) plant and vertebrate fossils have been discovered along the foothills, particularly in the central Sierra Nevada. Such fossils are typically observed in bluffs along rivers and streams (Hill, 1975) and may be present in the regional bundle land areas. Fossilized remnants of plants and bones of larger animals have also been found in the volcanic rocks comprised collectively of the Mehrten, Bonta, Penman, and Ingalls formations, which are widespread throughout the mountains and foothills of the Sierra Nevada (Durrell, 1982). These volcanic formations (about 20 million years old) are present in the Drum Regional Bundle in a wide band parallel to Interstate 80 between Lake Spaulding to west of Baxter (CDMG, 1992).

All of these paleontological resources are also found in areas outside of Project Lands, and are relatively common. Therefore, none are considered to be unique paleontological resources, and would not be subject to analysis, as their loss would not be considered an impact. Impacts to paleontological resources, therefore, are not further discussed in this section.

#### **4.7.3.2 Archaeological Resources**

Archaeological evidence places prehistoric people in California as early as 8,000 to 12,000 years ago; however, the last 2,000 to 4,000 are best documented. Given the environmental and ethnic variation found within California, no State-wide cultural sequence has been created. Instead, regional chronological sequences have been established, typically dividing human occupation into time periods (e.g., PaleoIndian, Early, Middle and Late Archaic, and Protohistoric). These regional sequences reflect changes in land use that were influenced by population growth (e.g., shift from small camps to village sites), technological change (e.g., shift from use of the atlatl to bow and arrow) and resource intensification (e.g., the intensive use of mortars and pestles and bedrock milling features). Change also results from population movements and displacements, and outside cultural influences (e.g., Cascades, Central Valley, and Great Basin).

Archaeological investigations in the Regional Bundles began in the 1950s and 1960s and continued into the 1990s; most were surveys for timber sales, FERC relicensing projects, or major pipeline and transmission projects (e.g., Pacific Gas Transmission [Moratto, 1989]). Prehistoric archaeological site types identified in the various regions include lithic scatters, bedrock milling stations, petroglyphs/pictographs, house pits, rock shelters, and middens. Artifacts identified include projectile points, lithic and ground stone tools, milling equipment, steatite, pottery, shell ornaments, and debitage. Historic archaeological sites encountered contain mining, ranch, farm, homestead, railroad, and construction-associated features. A recent review of the existing cultural resources information for all Regional Bundles indicates that less than one thousand known archaeological resources have been identified (PAR Environmental, 1998a-q). Given the long history of prehistoric occupation in California, it is highly likely that surface reconnaissance of the unsurveyed portions of these lands would lead to the identification of additional archaeological sites.

#### **4.7.3.3 Historical Resources**

Prior to the mid-nineteenth century, the water resources of the Shasta Watershed were primarily utilized in their natural state by Native American tribes, Euro-American trappers, explorers, and settlers. Such water usage was minimal, however, until the California Gold Rush brought a stream of miners into the Sierra Nevada. Placer mining, followed soon thereafter by the development of even more water intensive hydraulic mining, began to transform the rivers of the watershed into crucial aspects of the California mining economy.

Water development also contributed to growth in California's logging, ranching, and agricultural industries. During the 1850s-1870s there was an increase in logging throughout the Sierra Nevada.

Many of the system's rivers, including the Pit and Sacramento, were navigable high into the mountains, and were the scene of massive log drives that transported millions of board feet of lumber to the developing towns of the northern Central Valley. The drives were supplanted by narrow gauge railroads running into Northern California forests by the late nineteenth and early twentieth centuries. Development of roads and railroads made the steep mountain canyons more accessible to the public, and allowed a nascent recreation industry to spring up. Much of this recreation was centered around the rivers, lakes and reservoirs of the Sierra watersheds. Valley and foothill irrigated agriculture also grew, as water conveyance systems started to tap the rivers between 1860 and 1900.

The beginning of the twentieth century brought many changes to California's watersheds. Conservation movements, generated in part to preserve the integrity of the watersheds, sparked the establishment of the national forests, with the result that the Federal government owned and managed much of the watershed land. The establishments of national forests coincided with a boom in the creation of irrigation districts that spurred the State's agricultural industry to new heights, and eventually pitted farmers against metropolitan areas over rights to California's water resources. Finally, engineers and entrepreneurs recognized the vast hydroelectric potential of the Sierra Nevada river system. In the early 1900s, electrical power demands increased as the metropolitan areas grew, and many small, localized private power companies sprang up. In some cases, the power companies converted moribund hydraulic mining systems into hydroelectric power systems. The new powerhouse systems provided both permanent and temporary work for miners and ranchers, and the small communities that gradually formed around some of them provided opportunities for merchants.

Pacific Gas and Electric Company, organized in 1905, began to develop hydroelectric facilities early in the twentieth century. Over the next 30 years, the company built several hydroelectric facilities. Pacific Gas and Electric became the largest utility in California by the 1940s, serving thirty-eight northern and central California counties.

### 4.7.3.4 Ethnographic Resources

The proposed Pacific Gas and Electric Company hydroelectric facility divestiture would take place in an area that includes substantial parts of the California culture area, and peripheral areas of the Great Basin culture area. California Indian peoples discussed in this section are speakers of diverse languages from four different language stocks: the earlier Hokan language group (e.g., Palaihnihan, Yana, Pomoan, Washoan), Penutian (Maiduan, Utian, Yokutsan), Yukian (Yuki), and Uto-Aztecan (Numic, Tubatulabal) (see Shipley, 1978, Miller, 1986, and Jacobsen, 1986). Even where numerous villages in a given area shared a language and many cultural similarities, people tended to be politically organized in small groups which early anthropologists sometimes referred to as "tribelets." More recently, anthropologists have recognized substantial social stratification and cultural complexity among California Indian people, despite the lack of regional political integration (see, for example, Bean and Blackburn, 1976).

Settlement and subsistence patterns have much to do with the sorts of archaeological remains that are left behind by people. California Indian people lived mostly in relatively small settlements; these were sometimes occupied year-round, and sometimes only on a seasonal basis. Depending on the local environment, and a variety of factors including proximity to water, proximity to food resources, and defensive needs, settlements were variously located along waterways, or on ridges and promontories. Even when people lived in settlements that were occupied at all times of the year, some members of the group would travel on a seasonal basis and camp temporarily near favored food resources. Thus there are, throughout California, archaeological sites that represent temporary and seasonal activities such as hunting, fishing, or acorn gathering and processing. Village sites may include cemeteries, and they often have structures, such as sweat lodges or dance houses, that had ceremonial functions. There are also rock art (petroglyph and pictograph) sites, sometimes associated with villages and sometimes in remote locations, that had religious functions.

Native California religions vary considerably, yet certain aspects of native belief apply to almost any group. Heizer (1978a) commented that California Indian people “not only lived close to nature but also felt intimately an integral part of it.” Animals, plants, rocks, and mountains are considered to be sacred, animate beings, and people relate to the environment in a social manner. Nature provides for human needs; but nature can also be malevolent. Ritual practices are essential to maintain spiritual and material balance in the world; religious practice traditionally was governed by shamans, and was intimately tied to the specific geography—flora, fauna, landforms and climate—of the group’s territory. Certain foodstuffs are essential to religious practice, and traditional medical practice—which is closely tied to religion—is largely herbal in basis. Sacred sites, for California Indians, include but are not limited to ancestral villages, burial and cremation sites, petroglyph and pictograph sites, ceremonial sites and places known to have spiritual power, certain unique landforms and rock formations, rivers and springs, trails, and territorial boundary markers.

California Indian people suffered enormously as a result of White contact. Spanish missionization, beginning in 1769 and continuing until 1823, brought disease and mistreatment to coastal California Indians, and although the effects on native people of the proposed divestiture area were indirect, they were not entirely absent. Coastal people from San Diego to Sonora fled the missions for the interior, undoubtedly bringing European-introduced diseases with them. Several thousand people died of an unknown epidemic in 1833, including Maidu, Miwok and Yokuts people (Castillo, 1978). From 1770 to 1900, as a result of disease and warfare, the native population declined by 90 percent, from some 310,000 people to about 20,000; by 1970, the population had rebounded to about 90,000 (Cook, 1978). In the mid-nineteenth century, the United States negotiated treaties with many groups of California Indians; the treaties established a number of reservations that included more than eight million acres of land. These treaties were rejected by the U.S. Senate (Heizer, 1978b) and the people were progressively displaced by mining, settlement, and other forms of development. Many California Indian people remain unrecognized by the Federal government.

The following summarizes the ethnology of the system.

##### ***Achumawi (Pit River Indians) (Shasta Region)***

The Achumawi are Palaihnihan (Hokan) language speakers, consisting of eleven autonomous bands known as Madesiwi, Ilmawi, Itsatawi, Atsuge, Aporige or Apwaruge, Ajumawi, Atwamsini, Astariwawi, Hammawi, Hewisedawi and Kosalektawi (Olmsted and Stewart, 1978). Some authorities (e.g., Garth, 1978) consider the southernmost two bands, Atsuge and Apwaruge/Aporige, to constitute a separate group, the Atsugewi. Traditional Achumawi territory extended from Goose Lake on the northeast to Mount Shasta on the northwest, and on the south to Lassen Peak and Eagle Lake. FERC Project 0233 (Pit Powerhouses 3, 4, and 5) and FERC Project 2106 (James B. Black Powerhouse and Pit Powerhouses 6 and 7) are primarily in Madesiwi band territory, although the Pit Powerhouse 3 is at the northern edge of Itsatawi band territory and the Pit Powerhouse 7 is slightly into neighboring Yana territory. FERC Project 2687 has its upstream reservoirs in Ajumawi band territory and the Pit Powerhouse 1 in Ilmawi band territory. Ilmawi band territory also includes the Hat Creek Project (FERC Project 2661). Achumawi territory was not held inviolate; Atsugewi, Yana, and Maidu people traveled to the Pit River for salmon fishing, and they also gathered acorns at various locations in Achumawi territory. Contemporary Achumawi (Pit River) Indian people live at the Redding, Lookout, Big Bend, Roaring Creek and Montgomery Creek rancherias, within or west of their traditional territory; others live with Paiute, Maidu and Washoe people at Susanville Rancheria. Still others moved further from their traditional territory and live on the Round Valley Indian Reservation or at Big Valley Rancheria in Finley, California.

Achumawi territory varied in the food resources it provided; in the western parts of the territory, acorns and salmon were common, but in the eastern parts the subsistence pattern had more in common with the Great Basin than with other parts of California. Deer were hunted by trapping them in pits, hence the English name of the river, and the tribe. Housing consisted of open shades or windbreaks in the summer, and rectangular bark houses for winter (Kroeber, 1925).

##### ***Northern Paiute (Shasta and Motherlode Regions)***

Local groups of Northern Paiute people (speakers of a Uto-Aztecan Numic language) live in northeastern California, but they are also found throughout a widespread territory that extends from eastern Oregon down through western Nevada to and central eastern around Mono Lake. Northern Paiute territory does not encompass any of the hydroelectric projects proposed for divestiture, but some Northern Paiute people live among the Achumawi, and this may reflect long-established trade relations (Fowler and Liljebblad, 1986). In some instances, however, there were hostilities between the Achumawi and Northern Paiute (d'Azevedo, 1986). The X-L Ranch, Ft. Bidwell, and Cedarville Rancheria are Northern Paiute settlements in Modoc County, while the Susanville Rancheria is farther south, in Lassen County. Susanville includes descendants of the well-known Winnemucca band of Paiutes (Clemmer and Stewart, 1986). Farther south, the Mono Lake Northern Paiute and the Owens Valley Paiute (sometimes collectively known as the Eastern Mono)

traded across the Sierran crest with the Sierra Miwok and the Monache or Western Mono. Thus, although they did not live in the Motherlode region, they may have traveled there during trading ventures.

The Northern Paiute people pursued a hunting and gathering economy that was well adapted to the cold desert environment. Often described as seminomadic, the Northern Paiute are more accurately described as transhumant—following a relatively well-defined cycle of movement to areas where seasonal resources were available. Small game, fish and plant foods were more prominent in the diet than large game, although antelope and other larger game animals were hunted when available. Local groups of Northern Paiute people were often known by names reflecting their preferred (or most prominently available) foodstuff. Thus, the Mono Lake Paiutes were Kutsavidökadö (Brine Fly Pupae Eaters), and the Honey Lake Paiutes were Wadadökadö (Eaters of Suaeda Seeds).

### ***Yana (Shasta Region)***

The Yana, like their neighbors the Achumawi and Atsugewi, were speakers of a Hokan language. They lived in the upper eastern drainage of the Sacramento River, in a territory bounded by the Pit River on the north, Lassen Peak on the east, and Rock Creek (nearly to the present-day city of Chico) on the south (Johnson, 1978). Pit Powerhouse 7 (part of FERC Project 2106) is within Northern Yana territory; the Kilarc-Cow Creek Project (FERC Project 0606) is in Central Yana territory; and the Battle Creek Project (FERC Project 1121) is in Southern Yana territory. Contacts with Whites were mostly hostile, and several massacres of Yana people took place in the mid-nineteenth century; between 1846 and 1867 the population was reduced from about 1,900 to fewer than 100. Ishi, the last survivor of the southernmost Yana subgroup, the Yahi Yana, was made famous by Alfred Kroeber (Kroeber, 1961). A few Yana survivors live at Redding Rancheria, with Wintun and Achumawi (Pit River) people.

The Yana hunted, fished for salmon, and gathered acorns and other plant foods; their settlements were located primarily along stream courses, and only occasionally on ridges above the streams. Deer. The most important game animal, were hunted with decoys. and fish were taken with spears, nets, traps and poison. The Northern and Central Yana lived in substantial earth-covered multi-family dwellings, while the Southern Yana lived in dome-shaped single-family houses (Johnson, 1978).

### ***Northeastern Maidu (Mountain Maidu) (DeSabra Region; Peripheral to Shasta Region)***

The Northeastern or Mountain Maidu are Maiduan (Penutian stock) speakers. Maidu territory consisted of mountain meadows ranging from Lassen Peak on the northwest to Pilot Peak and Sierra Buttes on the south, and east to include Snowstorm Mountain and Honey Lake. Permanent villages were established in the more important valleys, which included Mountain Meadows, Big Meadows/Lake Almanor, Butt, American, Indian, Genesee and Red Clover valleys (Riddell, 1978). Traditional Maidu territory encompassed FERC Project Lands associated with two DeSabra Region projects, the unlicensed Hamilton Branch Project and the Feather River Project (FERC Project

2105). In the Shasta region, the Kilarc-Cow Creek and Battle Creek projects (FERC Projects 0606 and 1121) are only a few miles west of the northwestern most extent of Maidu territory. Despite some early nineteenth century contacts, the Maidu were little affected by White contact until the gold rush years. Then disease and attacks by Whites resulted in rapid population decline. From eight thousand people before 1850, the population declined to less than a thousand by 1910. Contemporary Maidu people belong to the Federally-recognized Susanville, Greenville, Enterprise, Berry Creek and Mooretown rancherias. Other individuals live scattered through northern California but most Maidu people live either in Plumas or Lassen counties.

The Maidu people hunted, fished, and gathered acorns. Deer were hunted during communal drives. Several villages would be organized into what Kroeber (1925:398) called “village communities.” Semisubterranean earth-covered lodges and conical bark houses were used in the winter, and in the summer people used open shades. The central village was the residence of the headman, and it was marked by having the largest subterranean ceremonial chamber or dance house.

#### ***Konkow (Northwestern Maidu) (DeSabra, Drum Regions)***

The Konkow, like the Mountain Maidu, are Maiduan (Penutian stock) speakers. Konkow traditional territory abutted that of the Maidu, extending nearly to Sutter Butte along the Feather River and also including a stretch of the Sacramento River around Chico. A particularly heavy concentration of Konkow population was located along the North, Middle and South Forks of the Feather River north and east of present-day Oroville (Riddell, 1978). Konkow territory included FERC Project Lands associated with the Bucks Creek Project (FERC Project 0619), Rock Creek-Cresta Project (FERC Project 1962), Butte Creek Project (FERC Project 0803), Poe Project (FERC Project 2107), and the unlicensed Lime Saddle and Coal Canyon projects. Some Konkow people were settled on the Nome Lackee Reservation in 1854, but many were forcibly removed to the Round Valley Reservation in 1863. Many Konkow people continue to live in Butte County, especially at Mooretown Rancheria in Oroville.

Konkow settlements were often on ridges and knolls, rather than in the steep, narrow river canyons. They hunted, gathered and fished for a living. Their houses were similar to those of the Maidu. The Konkow were less inclined to permanent settlement than the Maidu; they traveled seasonally into the mountains for deer hunting, and in the winter, into the lower valleys to gather grass seeds (Riddell, 1978).

#### ***Nisenan (Southern Maidu) (Drum Region East)***

Nisenan is a Maiduan family language, part of the Penutian stock. Although the Nisenan escaped the direct effects of missionization, they absorbed refugees from other tribes. In 1833, an epidemic (probably malaria) killed an estimated three-quarters of the Nisenan people (Cook, 1955), leaving them unable to effectively resist the gold miners that overwhelmed them in the late 1840s and early 1850s. Nisenan territory extends on its western edge from the lower Feather River just north of

Marysville, south to Sacramento. The northern boundary is poorly known; it includes the North Fork of the Yuba River, but Wilson and Towne (1978) consider the lower South Fork Feather River as possibly Nisenan, while Riddell (1978) identifies the area as Konkow. The southern boundary is also poorly known; it includes the South Fork of the American River and may extend as far as the Consumes River. On the east, Nisenan territory extended to the crest of the Sierra Nevada. Nisenan traditional territory encompasses the North Yuba River Project (FERC Project 1403, Narrows Powerhouse 1), the South Yuba-Bear River or Drum-Spaulding Project (FERC Project 2310, including 12 powerhouses and numerous reservoirs and forebays), and the Chili Bar Project (FERC Project 2155). The Shingle Springs Rancheria near Placerville is the only Federally recognized group of Nisenan people. Others currently live scattered throughout El Dorado, Nevada, Placer and Yuba counties.

The Nisenan lived by hunting, fishing, and gathering; acorns were a staple foodstuff. Drives were used for deer, and rabbits. Like the Maidu, the Nisenan lived in village clusters with a central village that provided leadership and ceremonial functions. The Valley Nisenan, living at lower elevations, built their villages along streams, whereas the higher elevation Hill Nisenan tended to built villages on ridges. Conical houses were used in winter, and brush shelters in summer (Wilson and Towne, 1978). The Nisenan reported malevolent spirits, sometimes called river mermaids, living in the major streams in their territory (Merriam, 1993). They tended to avoid higher altitude places, which were inhabited by “mysterious ‘spirit people’” called Bön’kol , or “hill people,” and by giants (Littlejohn, 1928).

#### ***Washoe (Drum Region East, and Motherlode Region)***

The Washoe (also known as Washo) are a culturally distinct group having affiliations with both the Great Basin and California (d’Azevedo, 1986). Linguistically, Washoe is apparently a Hokan language, and the Washoe have been in their traditional territory for a very long time (Jacobsen, 1986). The traditional territory is roughly centered on Lake Tahoe, and it covers an area about 120 miles long and 40 miles wide, extending to Honey Lake on the north and to the West Walker River and the headwaters of the Stanislaus River on the south. Washoe people moved about freely among the diverse environments within their territory, and were usually permissive in regard to use of their territory by Northern Paiute, Maidu and Miwok people (d’Azevedo, 1986). Extensive contacts between Washoe and adjacent tribes are better documented for some areas than for others. Washoe people traveled west well into Nisenan territory around Grass Valley and Colfax (Nevers, 1976) and sometimes intermarried with Nisenan (d’Azevedo *ibid.*); Washoe and Nisenan people celebrated “big times” together on the South Fork of the American River (Beals, 1933). Washoe territory proper is, for the most part, east of the proposed hydroelectric divestiture area. In the Drum region east, however, they traveled through the area along several of the major waterways, in order to trade for acorns with the western Sierran peoples. In traveling to Grass Valley, for instance, the Washoe traveled through the area where FERC Project 2310 is located. In the Motherlode region, some upper elevation portions of the divestiture area are within Washoe territory. Specifically, Upper Blue Lake, Lower Blue Lake, Twin Lakes and Meadow Lake (part

of the Mokelumne River Project, FERC Project 0137) are within traditional Washoe territory. The Federally recognized Washoe Tribe of Nevada and California is headquartered in Gardnerville, Nevada, but there are also communities of Washoe people in California, e.g., at Woodfords, southeast of Lake Tahoe. There are also some Washoe people living at the Susanville Rancheria.

The Washoe hunted and gathered various plant foods, and fishing was exceptionally important in their economy. They hunted big game, including mountain sheep, deer and antelope, and the diverse life-zones provided a variety of plants. Pine nuts were a staple food, and acorns were also important even though it meant traveling over the Sierra on foot, into the territories of the neighboring Maidu, Nisenan, and Miwok people (d'Azevedo, 1986). Natural landmarks figured into many Washoe stories, e.g., stories about the origin of Lake Tahoe. Corresponding to the Nisenan stories of River Mermaids are widespread Washoe stories of Water Babies (Rich, 1969). The Washoe also reported giants in their territory (Downs, 1961).

#### ***Yuki (Drum Region West)***

The Yuki are speakers of a language with no known affiliations. Their traditional territory was centered around the upper Eel River, in the Coast Range Mountains. Closely related groups, speaking dialects of the same language, were the Huchnom on the South Eel River and the Coast Yuki along the Pacific coast north of present-day Fort Bragg. The Yuki proper were divided into at least eight tribal subdivisions, including the Ta'no'm, Ukomno'm, Huititno'm, Witukomno'm, Onkolukomno'm, Sukshaltatamno'm, Lalkutno'm and Ontitno'm (Miller, 1978). Onkolukomno'm Yuki and Huchnom territories enclose most of the Potter Valley Project (FERC Project 0077); the Lake Pillsbury Reservoir and Dam are in Onkolukomno'm territory, while the Van Arsdale Reservoir is in Huchnom territory. (The Potter Valley Powerhouse, as explained below, is in Pomo territory.) Along the rugged South Eel River, the Huchnom lived in villages directly along the river (Miller *ibid.*). Yuki people currently live on the Round Valley Reservation, in Covelo, about 50 miles northwest of the Potter Valley Project but downstream, on the Eel River.

The Yuki hunted deer, fished for salmon, and gathered acorns and other plant foods. Fishing in the Eel River provided a year-round supply of food. Important spirits lived in Yuki territory, in mountains and streams; medicinal plant use was extensive (Miller, 1978). Hunting and gathering wild plant foods continues to be important to the Yuki.

#### ***Round Valley Indian Tribes (Drum Region West)***

The Round Valley Reservation was established in 1856, as the Nome Cult Indian Farm. It became a reservation two years later, and in addition to the local Yuki people, members of many other tribes were brought there, including Achumawi, Atsugewi, Lassik, Maidu, Modoc, Pomo, Wailaki and Yana (Miller, 1978). Currently, there are Nomlaki and Konkow people living there as well although the majority of reservation residents are Yuki, Wailaki, Nomlaki or Pomo. Profiles of the Achumawi, Atsugewi, Maidu and Yana people are presented elsewhere in this document. The Lassik and Wailaki were Athapaskan-speaking people who lived north of Round Valley in the

downstream reaches of the Eel River drainage (Elsasser, 1978), while the Nomlaki were Penutian-speaking people living east of the Yuki in present-day Tehama and Glenn counties (Goldschmidt, 1978). The Modoc were the farthest removed from Round Valley, being a group whose traditional territory was in extreme northern California, extending into Oregon (Kroeber, 1925). The Pomo are a large group with several regional divisions (McLendon and Oswalt, 1978); due to conflicts between the Huchnom and the Northern Pomo in Potter Valley, the Pomo are separately treated below. The Pomo groups with traditional territories closest to Round Valley were the Northeastern Pomo, whose territory adjoined that of the Onkolukomno'm Yuki (Bean and Theodoratus, 1978), and the Northern Pomo, who—as explained below—came into territorial conflict with the Huchnom.

#### ***Northern Pomo (Drum Region West)***

The Northern Pomo are but one of seven groups of Pomoan-speaking people; these Hokan languages were no more closely related than German and English. The Northern Pomo held a coastal territory that centered on Big River but extended from Tenmile Creek (in dispute with the Yuki) south to the Navarro River, and inland to Clear Lake. Three Northern Pomo communities, collectively known as Shanel-kaya, lived in Potter Valley on the upper east fork of the Russian River, where the Potter Valley Powerhouse (part of FERC Project 0077) is located. On occasion, however, the people from Shanel extended their hunting range to the north side of the Eel River, and there they came into conflict with the Huchnom (McLendon and Oswalt, 1978). In addition to Pomo people living at Round Valley Reservation, contemporary Northern Pomo groups include Sherwood Valley Rancheria, Redwood Valley Rancheria, Potter Valley Rancheria, Coyote Valley Rancheria, and Pinoleville Rancheria.

The Northern Pomo hunted deer, elk and antelope, and depended on acorns as a dietary staple. Fishing was an important part of the economy, both along the coast and inland. Single-family conical dwellings were built of redwood bark slabs, and multifamily communal structures were made of brush and grass. Large semi subterranean structures served as dance houses. On the Russian River and elsewhere, several villages might be confederated, both for military and ceremonial purposes (Bean and Theodoratus, 1978).

#### ***Eastern Miwok (Northern, Central and Southern Sierra Miwok) (Motherlode Region)***

The Eastern Miwok are speakers of a Utian family language which, like the Maiduan family, is part of the Penutian stock (Shipley, 1978). There are several other branches of the Miwok: the Lake Miwok near Clear Lake, the Coast Miwok north of San Francisco Bay, the Bay Miwok in the East Bay area, and the Plains Miwok in the Central Valley between Sacramento and Stockton. Linguistic evidence suggests great time depth in the California Delta but much more recent occupation in the Sierra. The Eastern Miwok include three subgroups, the Northern Sierra, Central Sierra, and Southern Sierra Miwok (Levy, 1978). The Northern Sierra Miwok occupied a traditional territory on the headwaters of the Consumes, Mokelumne and Calaveras Rivers. The Central Sierra Miwok

held a territory on the Stanislaus and the headwaters of the Tuolumne, and the Southern Sierra Miwok were on the Merced and the headwaters of Mariposa Creek and the Chowchilla and Fresno Rivers. The Mokelumne River Project (FERC Project 00137) is located in Northern Sierra Miwok territory; the Stanislaus River Project (FERC Project 2130) and the Phoenix Project (FERC Project 1061) are in Central Sierra Miwok territory, and the Merced River Project (FERC Project 2467) is in Southern Sierra Miwok territory.

The Bay Miwok were being missionized by 1794; Plains Miwok were brought into the missions by 1811, and by the 1820s Eastern Miwok people were beginning military resistance against Mexican settlements. Relations between miners and Sierra Miwok people (who had absorbed refugees from the missions) quickly soured, and many Miwok were killed (Levy, 1978). The Federal government later established reservations for several Sierra Miwok communities. These include Buena Vista Rancheria in Ione and Jackson Rancheria in Jackson (Northern Sierra Miwok), and Sheep Ranch Rancheria and Tuolumne Rancheria (Central Sierra Miwok). Southern Sierra Miwok did not receive Federal recognition, and Miwok people live scattered throughout their traditional territory in many small communities (Levy, 1978).

Northern Sierra Miwok ethnography was described by several scholars, including Edward Gifford, Burt Aginsky, and Samuel Barrett, but the descriptions are often in context of generalized Eastern Miwok and include little or no geographically specific information. The Sierra Miwok hunted and gathered plant foods, especially acorns; they lived in permanent villages but also traveled from lower to higher elevations to exploit seasonally available foodstuffs. Miwok legends include stories of “Rock Giants” that carry burden baskets made of rock. They captured Indian people, especially women, and took them to caves where they ate them. Two particular caves used by the rock giant Chehalum’che are identified in Calaveras County (Merriam, 1993), but other rock giants (with different names) were reported from throughout Miwok territory (ibid.).

#### ***Northern Valley Yokuts (Motherlode Region)***

Although the Pacific Gas and Electric Company Proponent’s Environmental Assessment (PEA) identifies Northern Valley Yokuts people as part of “the aboriginal population that inhabited the vicinity of the hydroelectric projects” (PG&E Co., 1999a), the Northern Valley Yokuts people lived in the Central Valley some distance from the hydroelectric projects. They lived farther downstream, along the Calaveras, Stanislaus, Tuolumne, and Merced Rivers (Wallace, 1978) — only a few miles below the Merced Falls Project (FERC Project 2467) but nearly 15 miles below the Mokelumne and Stanislaus River projects (FERC Projects 0137 and 2130). The Northern Valley Yokuts were trading partners with the Eastern (Sierra) Miwok, however, so it is likely that some of them found their way into the Motherlode region as visitors (Levy, 1978). TCR and ACRS (1984:28) mention the Ahwanee area—far up the Merced River, in Yosemite Valley—as an area where Southern Sierra Miwok, Monache, and Northern Valley Yokuts peoples gathered. There are few surviving descendants of the Northern Valley Yokuts, and no organized communities.

***Monache (Western Mono) (Kings Crane-Helms Region)***

The Monache comprise six distinct Numic-speaking tribes: the Northfork Mono, Wobonuch, Entimbich, Michahay, Waksachi and Patwisha (Kroeber's Balwisha) (Spier, 1978a). Kroeber (1925) separates the Northfork Mono into two groups, the un-named band north of the San Joaquin and the Posgisa on Big Sandy Creek; he also separates from the Wobonuch the Holkoma, living on the north side of Kings River in the Big Creek, Burr Creek and Sycamore Creek drainages. The term Monache is considered incorrectly applied, by some. Kroeber (1925) states that it is the Yokuts term for the Mono, but Tubatulabal people in the Lake Isabella area say the term simply refers to people living in "high country" and would apply to others as well to the tribes living in the Sierran drainages of the San Joaquin, Kings and Kaweah rivers. Some Western Mono people say the term was applied to them by "outsiders" (White, 1996).

There is some uncertainty about the affiliation of the Entimbich, whose ancestry may be largely Yokuts. Similarly, Kroeber (1925) identified the "Michahai" as Yokuts. The Northfork Mono/Posgisa, Wobonuch/Holkoma, and Entimbich held territories in the San Joaquin and Kings River drainages, in present-day Fresno County, while the Michahay, Waksachi and Patwisha were farther south, in the present-day Tulare County drainages of Cottonwood Creek and the Kaweah River. The Crane Valley Project (FERC Project 1354) is at least mostly in Northfork Mono territory (but see Foothill Yokuts below), while the Balch Project (FERC Project 0175, Haas-Kings River Project (FERC Project 1988), and Helms Pumped Storage Project (FERC Project 2735) are in Wobonuch/Holkoma territory. Northfork Mono people live primarily at North Fork Rancheria, and the Posgisa are at Big Sandy Rancheria in Auberry; Wobonuch people live in the community of Dunlap, and Holkoma people live at Cold Springs Rancheria.

Western Mono people occupied permanent villages in the lower elevation portions of their territory, but traveled seasonally to other parts of their territories, where they might live in temporary camps (e.g., fishing camps or hunting camps). Cedar bark houses were used at higher elevations, and thatched houses at lower elevations. Other structures included granaries, sweathouses, a dance house, and bedrock mortar shades. The Western Mono gathered wild plant foods (especially acorns), fished, and hunted. Hunting and fishing often involved cooperative efforts, in construction of weirs or in driving game by means of fire (Gayton, 1948).

***Foothill Yokuts (Kings Crane-Helms Region)***

The Foothill Yokuts comprised about 15 different groups of Yokutsan (Penutian) language speakers. Foothill Yokuts territory lay in the foothills of the Sierra Nevada, from the Fresno River in the north to the Kern River in the south. Several of these groups are of particular concern to the Pacific Gas and Electric Company divestiture. The two best known are Chukchansi and Yawdanchi, listed by both Kroeber (1925) and Spier (1978b); Kroeber listed others, not discussed by Spier, including the Dalinchi and Toltichi. Spier depicts Chukchansi territory south of present-day Oakhurst, on China Creek and the headwaters of Coarse Gold Creek and Fine Gold Creek, i.e.,

west of Crane Valley, adjoining the territory of the Northfork Mono. Kroeber (1925) places the Dalinchi on Fine Gold Creek, closer to the Northfork Mono than the Chuckchansi, and he identifies the Toltichi as occupying the main stem of the San Joaquin River upstream to the North Fork. Spier and Kroeber both place the Yawdanchi on the Tule River. The farthest downstream portions of the Crane Valley Project (FERC Project 1354), and the Kerckhoff Project (FERC Project 0096) are in Foothill Yokuts (Toltichi) territory; the Tule River Project (FERC Project 1333) is in Yawdanchi (Yaudanchi) territory. One other Foothill Yokuts, the Palewyami, occupied territory on the headwaters of Poso Creek, a short distance northeast of the Kern Canyon Project (but see Southern Valley Yokuts, below). Many contemporary Foothill Yokuts people live on the Tule River Indian Reservation, near Porterville, but the majority live scattered through their traditional territories.

Foothill Yokuts people depended on diverse food resources. They hunted both large and small game, and gathered plant foods, and they also fished. Salmon were an important resource in the fall. Acorns were a staple food. Conical houses of thatch or bark slabs were used during winter, and shades were used during the summer. Settlements were closely clustered, and often included springs, swimming places, bedrock mortars for acorn processing, and sweathouses (Spier, 1978b).

#### ***Southern Valley Yokuts (Kings Crane-Helms Region)***

Like the Foothill Yokuts, the Southern Valley Yokuts included a large number of distinct small tribes, whose members spoke Yokutsan (Penutian) languages. Their territory was in the southern end of the San Joaquin Valley, around Tulare, Buena Vista and Kern lakes, and the lower ends of the streams that fed those lakes (Wallace, 1978). The Wechihit Yokuts lived on the lower Kings River, and undoubtedly traded and intermarried with the Holkoma and Wobonuch Mono; the Koyeti Yokuts lived on the lower Tule River, and probably interacted closely with their relatives, the Yawdanchi, upstream. On the Kern River, the Yawelmani occupied present-day Bakersfield and the stream course for some distance upstream. The Kern Canyon Project (FERC Project 00178) is within Yawelmani Yokuts territory. Contemporary Southern Valley Yokuts people live mostly on the Tule River Indian Reservation, near Porterville, or at the Santa Rosa Rancheria in Lemoore.

The Southern Valley Yokuts groups also depended on diverse resources, but freshwater lake and marsh resources were predominant. They fished, hunted waterfowl, and collected shellfish, in addition to gathering a wide variety of plant foods. Some groups lived in mat-covered single-family dwellings, but other groups constructed large steep-roofed communal residences. Granaries and sweathouses were also used, but there were no communal dance houses (Wallace, 1978).

#### 4.7.4 REGIONAL AND LOCAL SETTING AND REGULATORY CONTEXT

##### 4.7.4.1 Shasta Regional Bundle

###### **Regional Setting**

###### ***Archaeological Resources***

Archaeological research in the Shasta Regional Bundle documents over 7,000 years of human occupation; from the PaleoIndian (Pre-7,500 BP), to the Early (3,900-7,500 BP), Middle (2,000-3,900), and Late Archaic (1,000-2,000) and Emergent (150-1,000) Periods (Cleland, 1997). Prehistoric land use in the region has changed over time due in part to environmental factors, but even more so as a result of population movements and displacements, and outside cultural influences (e.g., Great Basin, Cascades, and Central California). A recent review of the existing cultural resources information indicates that 369 known archaeological resources have been documented in this Regional Bundle (PAR, 1998a). Extensive testing has taken place at many of these sites, most notably, those associated with the Lake Britton Archaeological District. Sites typically are characterized as large middens, small middens, non-midden cultural deposits, lithic scatters, burial sites and historical sites; however, the range of variability is far more complex. Within these simple categories, sites in the Shasta Regional Bundle could contain any number of features, such as house pit depressions, rock cairns and alignments, fire hearths, petroglyphs/pictographs, and bedrock milling stations. Artifacts recovered include projectile points, lithic and ground stone tools, milling equipment, shell beads, freshwater shell, and debitage. Historic archaeological sites encountered within the watershed contain ranch, railroad, mining, and construction-associated features.

###### ***Historic Resources***

Historic Resources located in the Shasta Regional Bundle are consistent with the nature of historic resources characterized and summarized for the entire system in Section 4.7.5.

###### ***Ethnographic Resources***

As previously described, the Shasta Regional Bundle includes traditional territory of the Achumawi (Pit River Indians) and Yana. Some of the licenses in the region are also rather close to Northern Paiute and Northeastern (Mountain) Maidu territory. Some Northern Paiute people live among the Achumawi. Pacific Gas and Electric Company ethnographic studies pertaining to the Shasta region include studies for Pit 1, and Pit 3, 4 and 5. The Pit River Tribe has indicated deep concern for the cultural values of the lands in the Regional Bundle, and for the impacts to tribe values that could result from new management practices as a result of changes in ownership. The Tribe has also indicated its desire for a cultural resources management plan for the area, and for consultation with the Tribe regarding timber harvesting or other land uses (letter from Floyd J. Buckskin, Cultural Spokesperson for the Pit River Tribe, to Bruce Kaneshiro, CPUC, May 31 2000; letter from

Floyd J. Buckskin, Cultural Spokesperson for the Pit River Tribe, to Bruce Kaneshiro, CPUC, July 28, 2000).

**Bundle 1: Hat Creek**

***Hat Creek (FERC 2661)***

**Archaeological Resources.** Table 4.7-1 summarizes the known archeological resources present within lands associated with the Hat Creek Bundle. The resources identified are described further below, by type.

**Table 4.7-1 Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the Hat Creek 1 and 2 Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Baum Lake	100	3(P) 1(H)	unknown
Crystal Lake	100	6(P) 2(P/H)	unknown
Hat Creek No. 1	100	11(P) 2(P/H)	Y
Hat Creek No. 2	100	5(P)	Y
Hat Creek (near)	100	2(P)	unknown
Watershed Lands	72*	50(P), 3(P/H), 10(H), 1(unknown)	unknown
<b>Total</b>		<b>77 (P), 7 (P/H), 11 (H), 1 (unknown)</b>	

Source: PAR Environmental, 1998a.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), twenty-seven prehistoric archeological sites and four multi-component sites are located within FERC License Areas. Fifty prehistoric sites, three multi-component site, and one unknown sites are located within Watershed Lands. One hundred percent of the FERC License Areas and 72 percent of Watershed Lands have been previously surveyed. According to the Cultural Resource Management Plan for the Hat Creek 1 and 2 Hydroelectric Facility (FERC, 1999), there were four sites evaluated for eligibility for the NRHP; two of these were determined to be eligible.

**Historical Resources.** In addition to the historical components of the multi-component sites mentioned above, one historical site was located in the FERC licensed area, and ten historical sites were located in the Watershed Lands. None of these sites have been evaluated for eligibility for the NRHP.

**Ethnographic Resources.** This license is located primarily in traditional territory of the Ilmawi Band of the Achumawi people; the southernmost part of the license is within territory of the Atsuge (Atsugewi) Band. Relicensing of FERC License 2661 relied primarily on studies conducted for the Pit 1 and Pit 3, 4, and 5 licenses (PG&E Co., 1998a). Pacific Gas and Electric Company indicated that only one “ethnographic site,” an important salmon fishing area, was located in the vicinity of the license; it was described as being outside of the Project Lands (PG&E Co., 1998a). Several “traditional cultural properties” were also identified, however, including a meadow northeast of the Project Lands where the Ilmawi Band took refuge from Mount Lassen eruptions, and a number of undisclosed sites of spiritual significance within the APE (PG&E Co., 1998a). Eleven prehistoric archaeological sites within the Project Lands (PG&E Co., 1998a) could have potential ethnographic significance, given the presence of house pit depressions at some of the sites.

Pacific Gas and Electric Company claims it has consulted substantially with the Pit River Bands (PG&E Co., 1998a) and a Cultural Resources Management Plan (CRMP) has been prepared for FERC 2687 (PG&E Co., 1998a).

The Pit River Tribe has particular concern about ancestral lands in the Hat Creek, Hat 1 and Hat 2 Powerhouse and Baum Lake/Crystal Lake areas, where there are traditional cultural properties, village sites, and archaeological sites representing thousands of years of indigenous occupation. Pacific Gas and Electric Company declined to include ridgeline west of Baum Lake in the CRMP, as requested by the Pit River Tribe/Ilmawi and Atsugewi Bands, on the basis that the area is outside of FERC boundaries (PG&E Co., 1998a); these areas are, however, on Pacific Gas and Electric Company Watershed Lands. Pacific Gas and Electric Company has indicated knowledge that Pit River Indian Tribe member Cecilia Silvas “has historically used an access road across Pacific Gas and Electric Company hydroelectric lands in the Hat Creek area to reach her adjoining land without the benefit of a formal agreement” (PG&E Co., 2000a).

## **Bundle 2: Pit River**

### ***Pit 1 (FERC 2687)***

**Archaeological Resources.** Table 4.7-2 summarizes the known archeological resources present within the Project Lands. The resources identified are described further below, by type.

**Table 4.7-2 Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the Pit 1 Hydroelectric Facility**

Feature	Percent Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Pit No. 1 Powerhouse and Forebay	5	11 (P) , 3 (P/H), 1 (H)	Y
Big Lake-Horr PondCrater, Dana	30	47 (P), 3 (P/H)	unknown
Watershed Lands	19*	27 (P), 4 (P/H), 1 (H)	unknown
<b>Total</b>		<b>85 (P), 10 (P/H), 2 (H)</b>	

Source: PAR Environmental, 1998a.

\*= Average; P= Prehistoric; H = Historic; P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), fifty-eight prehistoric archeological sites and six multi-component sites are located within FERC Licensed Areas. Twenty-seven prehistoric archeological sites and four multi-component sites are located within Watershed Lands. An average of 17 percent of the FERC Licensed Areas, and 19 percent of the Watershed Lands have been previously surveyed.

In addition to the sites mentioned above, the Cultural Resource Management Plan for the Pit 1 Hydroelectric facility by Dames and Moore (FERC, 1999a), lists seven archeological sites that were evaluated as eligible for the NRHP.

***Historical Resources.*** In addition to the historical components of the multi-component sites mentioned above, one historical site was identified in the FERC Licensed Areas, and one historical site was identified within the Watershed Lands.

The Pit 1 Hydroelectric Facility (including the powerhouse and its operating machinery, the diversion dam, intakes and canal, the tunnel, the penstocks, and the tailrace) is listed in the NRHP.

***Ethnographic Resources.*** Pit Powerhouse 1 is located in Ilmawi Band (Achumawi) territory. One hundred thirteen ethnographic sites were found within and around the Pit 1 APE; eleven of these are within the APE. Six of the eleven sites are village or settlement areas; one is the former site of Manning (Pit River) Falls; two are traditional resource procurement areas; one is a battle site; and one is the Pit 1 Powerhouse, where many Pit River people were employed (PG&E Co., 1993a:). Pacific Gas and Electric Company claims it has consulted extensively with the Pit River Bands between 1990 and 1992, in developing an Cultural Resources Management Plan (CRMP) for FERC 2687 (PG&E Co., 1993b).

The Pit River Tribe has particular concern about ancestral lands in the Pit 1 Powerhouse and Pit River Falls area, where there are traditional cultural properties, village sites, and archaeological sites representing thousands of years of indigenous occupation. The Tribe has noted the presence of traditional cultural properties, other NRHP-eligible historic properties and potentially eligible properties around Pit 1 Powerhouse and Forebay. Pacific Gas and Electric Company has indicated an assumption that members of the Pit River Indian tribe enjoys access to Pacific Gas and Electric Company lands in the Fall River watershed area (PG&E Co., 2000b).

#### ***Pit 3, 4, 5 (FERC 0233)***

***Archaeological Resources.*** Table 4.7-3 summarizes the known archeological resources present within Project Lands. The resources identified are described further below, by type.

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), 35 prehistoric archeological sites, three multi-component sites and four unknown sites are located within FERC Licensed Areas. Fifty prehistoric archeological sites and

ten multi-component sites are located within Watershed Lands. An average of 58 percent of the FERC License Areas, and 54 percent of the Watershed Lands have been previously surveyed.

The Historical and Archeological Resources Section IV Affected Environment for the Pit 3, 4, and 5 Hydroelectric Facility by Dames and Moore (FERC, 1999b), notes twenty-seven archeological sites that were evaluated as eligible for the NRHP in the Lake Britton area.

**Historical Resources.** In addition, the historical components of the multi-component sites mentioned above, six historical sites were located within the FERC License Areas, and four historical sites were located within the Watershed Lands. These sites have not been evaluated for NRHP eligibility; however, the Lake Britton Archeological District is listed on the NRHP.

**Table 4.7-3: Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the Pit 3, 4, and 5 Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Lake Britton	90	22 (P), 3 (P/H), 5 (H) 4 (unknown)	Y
Pit No. 3 Powerhouse	70	2(P)	unknown
Pit No. 4 Powerhouse	70	3 (P)	unknown
Pit No. 4 Reservoir	70	1 (P) 1 (H)	unknown
Pit No. 5 Powerhouse	50	3 (P)	unknown
Tunnel Reservoir	5	1 (P)	unknown
James B. Black Powerhouse	50	2(P)	unknown
Watershed Lands	54*	50 (P), 10 (P/H), 4 (H)	unknown
<b>Total</b>		<b>84 (P), 13 (P/H), 10 (H) 4 (unknown)</b>	

Source: PAR Environmental, 1998a.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

**Ethnographic Resources.** FERC License 0233 is primarily in Madesiwi Band (Achumawi) territory, although Pit Powerhouse 3 is at the northern edge of Itsatawi Band (Achumawi) territory. An ethnographic study was conducted for this license (Woods and Raven, 1985). Pacific Gas and Electric Company summarized this study in their Exhibit E (PG&E Co., 1998b) and noted that “Numerous ethnographic villages were located within the license area” (PG&E Co., 1998b). The ethnographic study itself listed more than 122 ethnographic sites, but did not make clear which were and were not within FERC 0233 boundaries (Woods and Raven, 1985).

Native Americans were involved in testing of archaeological sites at Lake Britton, as monitors, fieldcrew, and lab technicians (PG&E Co., 1998b). A Cultural Resources Management Plan (CRMP) to be developed in consultation with Native Americans is referenced in the Exhibit E

(PG&E Co., 1998b), but it does not appear to have been completed or implemented. The ethnographic study included recommendations; these were general measures pertaining to data recovery from archaeological sites, prevention of vandalism to sites, monitoring of sites, protection of sites from damage by cattle grazing, appropriate methods of dealing with human remains, and provisions for on-going consultation (Woods and Raven, 1985).

The Pit River Tribe has particular concern about ancestral lands in the Pit 3 Lake Britton/Hat Creek area, where there are traditional cultural properties, village sites, and archaeological sites representing thousands of years of indigenous occupation. The Tribe has noted the presence of traditional cultural properties and other historic and potentially NRHP-eligible historic properties around Pit 3, 4, and 5. Pacific Gas and Electric Company has indicated awareness that the Pit River Indian tribe access several religious sites along the shore of Lake Britton, within FERC boundaries (PG&E Co., 2000a).

**McCloud-Pit (FERC 2106)**

**Archaeological Resources.** Table 4.7-4 summarizes the known archeological resources present within Project Lands. The resources identified are described further below, by type.

**Table 4.7-4 Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the McCloud-Pit Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NHRP ?
Iron Canyon Reservoir	85	5 (P)	unknown
Pit No. 6 Sacramento/Pit Reservoir	80	15 (P), 1 (H)	unknown
Watershed Lands	62*	71 (P), 8 (H), 2 (P/H)	unknown
<b>Total</b>		<b>91 (P), 9 (H), 3 (P/H)</b>	

Source: PAR Environmental, 1998a.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), twenty prehistoric archeological sites have been identified within the FERC Licensed Areas. Seventy-one prehistoric archeological and two multi-component sites have been identified within Watershed Lands. An average of 82 percent of the FERC Licensed Areas, and 62 percent of the Watershed Lands have been previously surveyed.

**Historical Resources.** In addition to the historical components of the multi-component sites mentioned above, one historical site was located within the FERC License Areas, and eight

historical sites were located within the Watershed Lands. None of these have been evaluated for NRHP eligibility

***Ethnographic Resources.*** McCloud-Pit FERC License facilities are primarily in Madesiwi Band (Achumawi) territory, although Pit Powerhouse 7 is partially within neighboring Yana territory. The Pit River Tribe has noted the presence of traditional cultural properties, and other historical properties, and potentially NRHP-eligible properties around Pit 6 and 7, Iron Canyon Reservoir, Lake McCloud and the J.P. Black Powerhouse, and has specifically commented on the sensitivity of Ash Camp near Hawkens Creek, an area where there were Wintu and Okwanuchi people as well as Ilmawi Band (Achumawi) people. A trail from Madesiwi territory goes up the Pit River and links the various Band territories (letter from Floyd J. Buckskin, Cultural Spokesperson for the Pit River Tribe, to Bruce Kaneshiro, CPUC, July 28, 2000). No ethnographic resources inventory or substantive, systematic consultation with local Native Americans has been conducted for this license (PG&E Co., 2000b).

### **Bundle 3: Kilarc-Cow Creek**

#### ***Kilarc-Cow Creek (FERC 0606)***

***Archaeological Resources.*** Table 4.7-5 summarizes the known archeological resources present within the Project Lands. The resources identified are described further below, by type.

**Table 4.7-5 Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the Kilarc-Cow Creek Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Mill Creek – Cow Creek	65	1 (P)	Y
Watershed Lands	60*	7 (P), 5 (H), 2 (P/H)	unknown
<b>Total:</b>		<b>8 (P), 5 (H), 2 (P/H)</b>	

Source: PAR Environmental, 1998a

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), one prehistoric archeological site has been identified within FERC licensed areas. Seven prehistoric archeological and two multi-component sites have been identified within Watershed Lands. The site identified within FERC-licensed areas appears to be the Cow Creek Petroglyphs, which are listed in the NRHP. An average of 65 percent of the FERC License Areas and 30 percent of the Watershed Lands have been previously surveyed.

***Historical Resources.*** In addition to the historical components of the multi-component sites mentioned above, no historical sites were identified within the FERC License Areas, and five historical sites were identified within the Watershed Lands.

**Ethnographic Resources.** This FERC Licensed Facility lies within Central Yana territory. Maidu territory begins only a few miles to the east. The Pit River Tribe, commenting on behalf of Yana people, some of whom are members of the Pit River Tribe, noted that there are many ancestral cultural resources of the Yana within license lands (letter from Floyd J. Buckskin, Cultural Spokesperson for the Pit River Tribe, to Bruce Kaneshiro, CPUC, July 28, 2000). No ethnographic resources inventory or substantive, systematic consultation with local Native Americans has been conducted for this license (PG&E Co., 2000b).

**Bundle 4: Battle Creek**

**Battle Creek (FERC 1121)**

**Archaeological Resources.** Table 4.7-6 summarizes the known archeological resources present within the Project Lands. The resources identified are described further below, by type.

**Table 4.7-6 Cultural Resource Sites Within FERC Licensed Areas and Watershed Lands Associated with the Battle Creek Hydroelectric Facility**

Feature	Percent Survey Coverate (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Volta Powerhouse No. 2	0	2 (P)	unknown
Bluff Springs	40	1 (P)	unknown
Lake Nora	50	4 (P)	unknown
North Battle Creek	unknown	2 (P), 1 (P/H)	unknown
Watershed Lands	17*	20 (P), 3 (H)	unknown
<b>Total</b>		<b>29 (P), 3 (H), 1 (P/H)</b>	

Source: PAR Environmental, 1998a.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998a), nine prehistoric archeological sites and one multi-component site have been identified within the FERC Licensed Area. Twenty prehistoric sites have been identified within the Watershed Lands. Less than half of the FERC License Areas and 17 percent of the Watershed Lands have been previously surveyed.

**Historical Resources.** In addition to the historical components of the multi-component sites mentioned above, three historical sites have been located within Watershed Lands.

**Ethnographic Resources.** The Battle Creek license is in Southern Yana territory. A few miles to the east is Maidu territory. The Pit River Tribe, commenting on behalf of Yana people, some of whom are members of the Pit River Tribe, stated that Battle Creek was formally designated as a reservation for the Yana (letter from Floyd J. Buckskin, Cultural Spokesperson for the Pit River

Tribe, to Bruce Kaneshiro, CPUC, July 28, 2000). The Project lands associated with Battle Creek may, therefore, be considered historically significant to the Yana. No ethnographic resources inventory or substantive, systematic consultation with local Native Americans has been conducted for this license (PG&E Co., 2000b).

***Service Center at Manton.*** There are no known cultural resource sites at the Manton Hydroelectric Service Center; however no archaeological investigations appear to have been undertaken.

#### **4.7.4.2 DeSabra Regional Bundle**

##### **Local Setting**

##### ***Archaeological Resources***

Archaeological research in the DeSabra Region documents over 6,000 years of human occupation. A recent review of the existing cultural resources information for the DeSabra Region indicates that 128 known archaeological resources are associated with FERC Project Lands; 85 are prehistoric or mixed component sites (PAR, 1998bf). Sites identified in the region are characterized as rock shelters, house pits, middens, bedrock milling stations, lithic scatters, and petroglyphs. Historic archaeological sites encountered contain ranching, mining, railroad, and construction-associated features. Few archaeological investigations have been undertaken on FERC Lands in this region.

##### ***Historical Resources***

Historic Resources located in the DeSabra Regional Bundle are consistent with the nature of historic resources characterized and summarized for the entire system in Section 4.7.3.

##### ***Ethnographic Resources***

As previously indicated (see Section 4.7.3), the DeSabra region includes traditional territory of the Northeastern (Mountain) and Konkow (Northwestern Maidu). There are no Pacific Gas and Electric Company ethnographic studies pertaining to the DeSabra region. Known concerns for ethnographic resources, on the part of contemporary representatives of these groups, are discussed on a license-specific basis below.

The Maidu Cultural and Development Group (MCDG) has raised issues pertaining to the DeSabra region generally. The MCDG noted that there “have been no studies as to the importance of past actions and present day operations of power companies on the culture of the Maidu people.” Resources of concern on Pacific Gas and Electric Company lands include “our village sites; burial sites; gathering sites for food, medicine, and basket weaving plants; and sacred ceremonial sites.” The MCDG wants protection of sites from erosion; protection of plants and animals from land management practices; and guaranteed access to Maidu sites (letter from Lorena Gorbet, Maidu Cultural and Development Group, to Bruce Kaneshiro, CPUC, May 22, 2000).

The Machoopda Rancheria is also concerned about cultural resources throughout the DeSabra region; their primary concerns are with the lower Feather River, but the Butt Creek area (FERC 2105) is also very important to them. The Tribe is concerned with protection of burials; gathering of acorns for food, feasts, and education on traditional lifestyles; and gathering of basketry materials. As a currently landless Tribe, the Rancheria is looking for a place (of historical significance to them) to conduct cultural activities (Machoopda Rancheria, 2000).

Cultural representatives for the Mooretown Rancheria of Maidu Indians told CPUC Staff that they are concerned about protection of cultural and sacred lands on Pacific Gas and Electric Company lands. Pacific Gas and Electric Company has stated that there are no “formal or informal access agreements with the Maidu Indian tribe” but the Company has nonetheless “observed the tribe utilizing access roads to cross Pacific Gas and Electric Company hydroelectric lands” in the Feather River watershed area (PG&E Co., 2000a).

#### **Bundle 5: Hamilton Branch**

##### ***Hamilton Branch Project (non-FERC)***

In 1921, the Red River Lumber Company built for its own use the Hamilton Branch Powerhouse, a 4.8 MW plant on the eastern shore of Lake Almanor.

***Archaeological Resources.*** To date, there are no known cultural resource sites in the Hamilton Branch Powerhouse area; however, little or no archaeological work has been done in the area of the powerhouse and associated facilities, and unidentified sites may be present.

***Historical Resources.*** The Hamilton Branch Powerhouse was built in 1921 and could potentially be eligible for inclusion in the NRHP; however, no study of eligibility has been conducted.

***Ethnographic Resources.*** This project is located in Northeastern (Mountain) Maidu traditional territory. Pacific Gas and Electric Company has stated that there are no “formal or informal access agreements with the Maidu Indian tribe” but the Company has nonetheless “observed the tribe utilizing access roads to cross Pacific Gas and Electric Company hydroelectric lands” in the Feather River watershed area (PAR, 2000f).

#### **Bundle 6: Upper North Fork Feather River**

##### ***Upper North Fork Feather River (FERC 2105)***

***Archaeological Resources.*** Table 4.7-7 summarizes the known archaeological resources present within Project Lands. The resources identified are further described below.

An average of 77 percent of the Upper North Fork Feather River bundle FERC Licensed Areas had been surveyed for cultural resources (PAR, 1998). These surveys identified 33 prehistoric archaeological sites, 20 historical archaeological sites, and one multiple-component site. The highest concentrations of sites occur in the Lake Almanor and Butt Valley Reservoir areas.

Almanor Dam and Caribou Powerhouse have been determined eligible for inclusion in the NRHP (PAR, 1998). No information is available regarding the National Register status of the remainder of the sites, or whether they have been evaluated for eligibility for the National Register.

In addition to the archaeological sites located within FERC Licensed Areas, PAR Environmental identified 41 prehistoric archaeological sites, one multi-component site, and five historical sites on Watershed Lands (PAR, 1998 and PAR, 2000). Survey coverage of Watershed Land ranges from six to 100 percent, with an average coverage, by USGS Section, of approximately 68 percent (PAR, 2000).

**Table 4.7-7 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Upper North Fork Feather River Facility**

Project Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Any Sites Listed or Eligible for NRHP?
Belden Powerhouse and Forebay	45	3(H)	unknown
Lake Almanor	95	16(P), 6(H)	Y
Butt Valley Reservoir	60	17(P), 1(P/H), 11(H)	Y
Watershed Lands	68*	41(P), 1(P/H), 5(H)	unknown
<b>Total:</b>		<b>73(P), 2(P/H), 24(H)</b>	

Source : PAR Environmental, 1998g PAR, 2000f.

\* = Average

P = Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

Much of the east side and south end of Butt Valley Reservoir above the high water line was previously surveyed for cultural resources in 1993 for the Pacific Gas and Electric Company/Butt Valley Timber Harvest. This study resulted in the documentation of 15 archaeological sites. Six of the sites exist at the south end of the reservoir.

The Plumas County General Plan Policies Map for Historic Areas identifies areas with potential to yield as yet unrecorded historical and archaeological resources:

- Lake Almanor
- Butt Valley Reservoir (also known as Butt Lake)
- Humbug Valley Lands
- Areas along North Fork Feather River in the vicinity of Caribou, Belden
- Bucks Lake (FERC Land)
- Rodgers Flat Vicinity

The North Fork Feather River canyon is considered by the U.S. Forest Service and others to be an area of special significance because of the degree of habitation which occurred and the unaccountable loss of information which has taken place (CDWR, 1986).

**Historical Resources.** Almanor Dam and Caribou Powerhouse have been determined eligible for inclusion in the NRHP (PAR.1998g). Additionally, a house, barn, and shed located on the west side of the dam were noted as historical features but were not formally recorded (Butt Valley Dam Seismic Remediation- Project Rpt., June 12, 1996, p.278). Other structures associated with this hydroelectric facility were constructed after 1958. Since they are not at least 50 years old, they do not merit evaluation for National Register eligibility.

In addition, the Plumas County General Plan also identifies special historical areas and buildings. Some of these features are located adjacent to Project facilities.

- 17-Miller House (vicinity of Humbug Valley Lands)
- 18-Lemm Ranch (vicinity of Humbug Valley Lands)
- 19-Tobin Resort (along NFFR)
- 23-Piazzoni Cabin (vicinity of Butt Valley Reservoir)
- Caribou Special Plan Historic Area (no number identified)
- 49-Bucks Lake
- 50-Bucks Ranch Hotel Site

**Ethnography.** This license is located in Northeastern (Mountain) Maidu traditional territory.

**Rock Creek-Cresta (FERC 1962)**

**Archaeological Resources.** Table 4.7-8 summarizes the known archaeological resources present within Project Lands. The resources identified are further described below.

**Table 4.7-8 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Rock Creek-Cresta Facility**

Project Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Rock Creek Dam and Reservoir	100	0	Unknown
Cresta Dam and Reservoir	100	2P	Unknown
Rock Creek Rio-Oso Transmission Line	30	3P	Yes
Watershed Lands	75*	6P, 2P/H, 4H	Unknown
<b>Total:</b>		<b>11P, 2P/H, 4H</b>	

Source: PAR Environmental, 1998d, PAR, 2000f.

\* = Average

P = Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

An average of 77 percent of the Rock Creek-Cresta bundle FERC Licensed Areas had been surveyed for cultural resources (PAR, 1998h). These surveys identified five prehistoric archaeological sites, and no historical archaeological sites or multiple-component sites. The highest concentrations of sites occur in the Cresta Dam and Reservoir and Rock Creek Rio-Oso

Transmission Line areas. One of these sites is eligible for inclusion in the NRHP eligibility (PAR, 1998h).

In addition to the archaeological sites located within FERC, PAR Environmental identified six prehistoric archaeological sites, two multiple-component sites, and four historical sites in this license's Watershed Lands (PAR, 1998h). Survey coverage of Watershed Lands ranges from 50 to 100 percent.

According to the PAR Environmental cultural resources summary, a 1988 survey of 28 linear miles along both sides of Highway 70 was conducted as part of a proposed dredging project for the Rock Creek and Cresta Reservoirs. The survey resulted in recordation of 13 historical properties including three prehistoric, five multiple-component, and five historical sites. It was concluded, however, that the sites were located within or adjacent to the Caltrans Highway 70 right-of-way and were probably not within Pacific Gas and Electric Company's FERC boundaries.

The North Fork Feather River canyon is considered by the U.S. Forest Service and others to be an area of special significance because of the degree of habitation which occurred and the unaccountable loss of information which has taken place (DWR, 1986, NFFR Cumulative Impact Study Relating to Future Hydroelectric Development).

***Historical Resources.*** There appear to be no structures evaluated for eligibility for inclusion in the NRHP (PAR, 1998h). Structures associated with this hydroelectric facility were constructed after 1950. Since they are not more than 50 years old, they do not merit evaluation for National Register eligibility.

***Ethnography.*** FERC License 1962 is located primarily in Konkow traditional territory. Watershed lands in Humbug Valley are, however, in Maidu territory. Specific comments were received by the CPUC regarding ancestral Maidu lands and sacred sites in the Humbug Valley area, on Pacific Gas and Electric Company watershed lands, from a Maidu individual. A large Maidu village site was located in Humbug Valley; bedrock mortar sites are plentiful; and there is a known burial site where Maidu people gather annually for a memorial. Two letters from Pacific Gas and Electric Company to Mr. Beverly Ogle were submitted to the CPUC documenting Pacific Gas and Electric Company's agreements regarding access to Maidu cultural and historical sites (letter from Beverly Ogle, Maidu, to Bruce Kaneshiro, CPUC, August 14 2000). Mrs. Ogle also informed CPUC Staff that she has previously communicated to Pacific Gas and Electric Company her concerns about destruction of sacred sites on license lands by cattle grazing and timber harvesting (Ogle, 2000).

***Poe (FERC 2107)***

***Archaeological Resources.*** Table 4.7-9 summarizes the known archaeological resources present within Project Lands associated with the Poe hydroelectric facility that have been surveyed. The FERC Lands associated with the Poe facility have not been surveyed. Therefore, there are no

known cultural sites that are within the FERC Lands associated with the Poe facility. The resources identified are further described below.

**Table 4.7-9 Cultural Resource Sites Identified Within FERC Licensed Areas And Watershed Lands Associated with the Poe Facility**

Project Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
N/A	0	0	unknown
Watershed Lands	35*	8(P), 2(P/H)	unknown
<b>Total Sites:</b>		<b>8(P), 2(P/H)</b>	

Source: PAR, 1998i, PAR, 2000f.

\* = Average

P = Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

None of the Poe Creek bundle FERC Licensed Areas had been surveyed for cultural resources (PAR, 1998i).

PAR Environmental identified eight prehistoric archaeological sites and two multiple-component sites in Watershed Lands (PAR, 1998i, PAR, 2000f). Survey coverage of Watershed Land parcels ranges from 5 to 85 percent, with an average coverage, by USGS Section, of approximately 35 percent (PAR, 2000).

The North Fork Feather River canyon, which includes the Poe facility, is considered by the U.S. Forest Service and others to be an area of special significance because of the degree of habitation which occurred and the unaccountable loss of information which has taken place (CDWR, 1986).

**Historical Resources.** There appear to be no sites within the surveyed areas that have been evaluated for inclusion in the NRHP, although surveys have not been conducted on FERC Lands (PAR, 1998i). Structures associated with this hydroelectric facility were constructed after 1958. Since they are not more than 50 years old, they do not merit evaluation for National Register eligibility.

**Ethnography.** FERC License 2107 is located in Konkow traditional territory.

**Bundle 7: Bucks Creek**

***Bucks Creek (FERC 0619)***

Table 4.7-10 summarizes the known archaeological resources present within Project Lands associated with the Bucks Creek hydroelectric facility that have been surveyed. The resources identified are further described below.

#### 4.7-10 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Bucks Creek Facility

Project Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Bucks Lake	65	11(P), 2(H)	unknown
Grizzly Forebay	10	1(P), 1(P/H), 1(H)	unknown
Watershed Lands	70*	2(P), 1(H)	unknown
<b>Total:</b>		<b>14(P), 1(P/H), 4(H)</b>	

Source: PAR, 1998j, PAR, 2000f

\* = Average

P = Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

Approximately 60 percent of the Bucks Creek bundle FERC Licensed Areas had been surveyed for cultural resources (PAR, 1998j). These surveys identified 12 prehistoric archaeological sites, three historical archaeological sites, and one multiple-component site. The highest concentration of sites occur in the Bucks Lake area. Survey coverage of Bucks Lake has been fairly extensive.

In addition to the archaeological sites located on FERC Licensed Areas, PAR Environmental identified two prehistoric archaeological sites and one historical site in this facility's Watershed Lands (PAR, 1998j). Survey coverage of Watershed Land parcels ranges from five to 100 percent.

One of the sites at Bucks Lake is affected by recreation use and wave actions resulting from flashboard installation (FERC, 1984, License for Federal Energy Regulatory Commission (FERC) Project 0619, Bucks Creek: Order Amending License, Amendment No. 3, Instrument No. 7).

**Historical Resources.** The PAR Environmental cultural resources summary documented that the Bucks Creek Incline Railway was evaluated and recommended as eligible for inclusion in the NRHP in 1984 (PAR, 1998j). Although not discussed in the PAR Environmental cultural resources survey, the Bucks Creek Powerhouse could potentially be eligible for inclusion in the NRHP because it was built in 1928; however no evaluation has been conducted.

**Ethnography.** FERC License 0619 is located along the border between traditional Konkow and Maidu territory. Bucks Lake is an area noted as having cultural resources of concern to Maidu people at Greenville Rancheria (Greenville Rancheria, 2000b).

#### **Bundle 8: Butte Creek**

##### ***DeSabra-Centerville (FERC 0803)***

Table 4.7-11 summarizes the known archaeological resources present within Project Lands associated with the DeSabra-Centerville hydroelectric facility that have been surveyed. The resources identified are further described below.

**4.7-11 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the DeSabra-Centerville Facility**

Project Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
DeSabra Powerhouse	100	1(H)	Y
Hendricks Canal	unknown	1(H)	Y
Centerville Powerhouse	100	1(H)	Y
Butte Creek Canal	unknown	2(H)	unknown
Toad Town	unknown	1(H)	unknown
Centerville Canal	unknown	2(H)	unknown
Little Butte Creek	35-50	1(H)	unknown
Toadtown Canal	35-50	1(P), 1(H)	unknown
Watershed Lands	50*	6(H)	unknown
<b>Total:</b>		<b>1(P), 8(H)</b>	

Source: PAR, 1998k, PAR, 2000f

\* = Average

P = Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

To date, the powerhouses have been completely inventoried whereas the canal systems and reservoirs have not. Only portions of the canal system have been systematically covered leaving noticeable gaps in the coverage. Apart from the hydroelectric powerhouses themselves, there have been relatively few sites recorded on the overall hydroelectric facility. Previous surveys of FERC Licensed Areas identified one prehistoric archaeological site and ten historical archaeological sites.

In addition to the archaeological sites located within FERC Licensed Areas, PAR Environmental identified six historical archaeological sites on Watershed Lands (PAR, 2000). Survey coverage of Watershed Lands ranges from zero to 100 percent, with an average coverage of approximately 50 percent.

**Historical Resources.** The Centerville and DeSabra Powerhouses and Hendricks Canal have been determined eligible or evaluated as eligible for listing on the NRHP.

**Ethnography.** FERC License 0803 is located in Konkow traditional territory.

**Lime Saddle Powerhouse (non-FERC)**

**Archaeological Resources.** Little or no archaeological work has been done in the area of the powerhouse and associated facilities, and there are no known cultural resource sites in the Lime Saddle Powerhouse area. In addition, no resources have been evaluated for eligibility for the NRHP.

**Historical Resources.** The first Miocene Head Dam was built for hydraulic mining purposes around the 1860s or early 1870s. The Miocene Canal's water right has a priority of 1865, and originally ran from its intake on the West Branch of the Feather River (WBFR) 11 miles to old mining claims on Dry Creek, which at that time was called Davis Ditch. The life of the original Miocene diversion structure is unknown, but a timber crib was constructed in 1909 by the Oro

Water Light and Power Company. Water diverted into the Upper Miocene Canal is used to run the turbines at Lime Saddle Powerhouse. Upon its discharge at that facility, the water is conveyed through Pacific Gas and Electric Company's Lower Miocene Canal for power generation at Coal Canyon Powerhouse (PG&E Co., 1978).

No resources have been evaluated for eligibility for the NRHP. However, the Lime Saddle Powerhouse could potentially be eligible for inclusion in the NRHP because it was built in 1906.

***Ethnographic Resources.*** The Lime Saddle facility is located in Konkow traditional territory.

#### ***Coal Canyon Powerhouse (non-FERC)***

***Archaeological Resources.*** Table 4.7-12 summarizes the known archaeological resources present within the Watershed Lands associated with the Coal Canyon Powerhouse that have been surveyed. Minimal surveys have been conducted, but there is an obvious concentration of archaeological sites in and around the Lake Oroville area.

**Table 4.7-12 Cultural Resource Sites Identified Within Watershed Lands Associated with the Coal Canyon Powerhouse**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Oroville	1	4(P), 2(H)	unknown
Oroville Dam	13	0	unknown
Pulga	0	0	unknown
<b>Total:</b>	<b>7</b>	<b>4(P), 2(H)</b>	

Source: PAR 1998.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

***Historical Resources.*** For a brief historical description of the Coal Canyon Powerhouse, please refer to the Lime Saddle Powerhouse summary above. The Coal Canyon Powerhouse was constructed in 1907, and could potentially be eligible for the National Register, although no evaluation has been conducted.

***Ethnographic Resources.*** The Coal Canyon facility is located in Konkow traditional territory.

#### ***Service Centers***

***Rodgers Flat Hydroelectric Service Center.*** The Rodgers Flat Hydroelectric Service Center services Bundle 5 - Hamilton Branch; Bundle 6 - Feather River, which includes FERC 2105, FERC 1962, and FERC 2107; and Bundle 7 - Bucks Creek, FERC 0619.

There are no known cultural resource sites at the Rodgers Flat Hydroelectric Service Center; however, little or no archaeological work has been conducted in the service center area.

***Camp 1 Hydro Service Center.*** The Camp 1 Hydroelectric Service Center services Bundle 8, Butte Creek, which includes FERC 0803 and two non-FERC facilities Lime Saddle and Coal Canyon.

There are no known cultural resource sites at the Camp 1 Hydroelectric Service Center; however, little or no archaeological work has been conducted in the service center area.

***Canyon Dam Service Center and Prattville Weather Station.*** The Canyon Dam and Prattville Weather Station Service Centers are located within the Upper North Feather River FERC licensed lands. Refer to the Upper North Fork Feather River (FERC 2105) setting for a description of cultural resources within the vicinity of the service center.

### 4.7.4.3 Drum Regional Bundle

#### **Regional Setting**

#### ***Archaeological Resources***

The Drum-Spaulding, Narrows, and Chili Bar facilities lie within the north central Sierra Nevada province, an area that has an 8,000 year history of human occupation. The Potter Valley facility sits within the North Coast Range, an area with an equally long prehistory. A recent review of the existing cultural resources information for the Drum region indicates that 185 known archaeological resources are associated with FERC Lands; 84 are prehistoric or mixed component sites (PAR, 1998g-i). Sites identified in the region are characterized as lithic scatters, bedrock mortars, and petroglyphs. Historic archaeological sites encountered contain farming, mining, railroad, and construction-associated features. Few archaeological investigations have been undertaken in this region; most surveys were conducted in the 1970s and 1980s. Given the long history of prehistoric occupation in the area, and the lack of adequate surveys, it is highly likely that surface reconnaissance of the unsurveyed portions of the Drum Regional Bundle will lead to the identification of additional archaeological sites.

#### ***Historical Resources***

Historic Resources located in the Drum Regional Bundle are consistent with the nature of historic resources characterized for the entire system under 4.7.3.

#### ***Ethnography***

From an ethnographic perspective, the Drum region must be clearly separated into its eastern (Bundles 9, 11 and 12) and western (Bundle 10) portions. As previously indicated (see 4.7.3), the eastern Drum region includes traditional territory of the Konkow (Northwestern Maidu) and Nisenan (Southern Maidu), and the Washoe traveled into the eastern Drum region. The western Drum region includes traditional territory of the Yuki, Huchnom, and Pomo, and the nearby Round

Valley Reservation also includes descendants of the Achumawi, Atsugewi, Lassik, Maidu, Modoc, Wailaki and Yana people.

There have been no Pacific Gas and Electric Company ethnographic studies pertaining to the Drum region. Known concerns for ethnographic resources, on the part of contemporary representatives of these groups, are discussed on a license-specific basis below.

### **Bundle 9: North Yuba River**

#### ***Narrows (FERC 1403)***

***Archaeological Resources.*** Table 4.7-13 summarizes the known archaeological resources present within Project Lands associated with the Narrows hydroelectric facility. The resources identified are further described below.

**Table 4.7-13 Cultural Resources Identified Within FERC Licensed Areas and Watershed Lands Associated with the Narrows Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
The Narrows Powerhouse	80	1(H)	N
Watershed Lands	97*	1(H)	unknown
<b>Total:</b>		<b>2H</b>	

Source: PAR Environmental 1998n and 2000c

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

The cultural resources summary prepared by PAR Environmental did not identify any prehistoric archaeological sites within the FERC Licensed Areas, or Watershed Lands associated with the Narrows hydroelectric facility. However, one historical archaeological site was present within the Watershed Lands (PAR, 1998n and 2000c). The summary further states that approximately 80 percent of the FERC Licensed Areas and 97 percent of the Watershed Lands have been previously surveyed. Previous archaeological investigations by the U.S. Army Corps of Engineers in the 1970s revealed no cultural resources in the Narrows facility area (PAR, 1998n).

***Historical Resources.*** One historical structure (CA-NEV-192H) lies within the FERC Licensed Areas (PAR, 1998n). No historical resources were identified within the Watershed Lands associated with the Narrows hydroelectric facility (PAR, 1998n and 2000c). While PAR Environmental provided no indication of whether the site has been evaluated for eligibility for the NRHP, the cultural resources report (PG&E Co., 1989) included in the license for FERC 1403 states that CA-NEV-192H was designated as the original (1942) Narrows powerhouse, but the site report erroneously documented the New Narrows powerhouse, which was constructed in 1966, and is not of historical significance. The original Narrows powerhouse was consequently evaluated by Peak and Associates as part of their survey work in 1986. A letter report concerning this

evaluation states that the powerhouse is not architecturally significant, the structure and history of the powerhouse are fully documented, and the powerhouse is “in no way a NRHP eligible property” (PG&E Co., 1989). The letter also recommends that the site designation be shifted from the New Narrows powerhouse to the 1942 powerhouse. The State Historic Preservation Officer concurred with this evaluation (PG&E Co., 1989).

**Ethnography.** The Narrows FERC Licensed facility is within Nisenan (Southern Maidu) traditional territory.

**Bundle 10: Potter Valley**

**Potter Valley (FERC 0077)**

**Archaeological Resources.** Table 4.7-14 summarizes the known archaeological resources present within Project Lands associated with the Potter Valley hydroelectric facility. The resources identified are further described below.

**Table 4.7-14 Cultural Resources Identified Within FERC Licensed Areas and Watershed Lands Associated with the Potter Valley Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Van Arsdale Reservoir	55	7(P), 1(H),1(P/H)	unknown
Lake Pillsbury	5	6(P), 1(P/H)	unknown
Watershed Lands	50*	14(P), 1(P/H), 1(H)	unknown
<b>Total:</b>		<b>27(P), 2(H), 3(P/H)</b>	

Sources: PAR Environmental 1998o and 2000c

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

The cultural resources summary prepared by PAR Environmental (1998o) for the Potter Valley hydroelectric facility identified 16 known archaeological sites (13 prehistoric, 2 multiple component, and one historical) within the FERC Licensed Areas and 16 sites (14 prehistoric, one multiple component, and one historical) within Watershed Lands. No evaluation of NRHP status for any site appears to have been conducted. Further, as shown in the table above, no more than 55 percent of any parcel within the FERC Lands associated with the Potter Valley hydroelectric facility was surveyed: previous investigations in the vicinity of Lake Pillsbury only surveyed five percent of the associated FERC License Lands.

**Historical Resources.** The historical sites listed above appear to be historical archaeological sites, rather than structures. None of the Potter Valley hydroelectric facilities appear to have been evaluated for eligibility for the NRHP. These structures include the Potter Valley Powerhouse, which was constructed in 1908, the Redwood Penstock associated with the powerhouse, Lake Pillsbury, and Van Arsdale Reservoir (PG&E Co., 2000).

**Ethnography.** Most of FERC License 0077 is in Onkolukomno'm Yuki or Huchnom territory; Lake Pillsbury Reservoir and Dam are in Onkolukomno'm territory, while Van Arsdale Reservoir is in Huchnom territory. The Potter Valley Powerhouse itself is in Pomo territory. The Wiyot live downstream from the Pottery Valley license, in the Eel River drainage.

The Wiyot Tribe of the Table Bluff Rancheria commented that FERC 0077 has had and continues to have impacts on cultural resources. Loss of the salmon and steelhead trout fisheries by the Wiyot and Wailaki tribes has resulted in the "collapse of these tribes' subsistence capability, economic vitality and cultural viability" and continues to have "severe adverse impacts on the commercial and sportfishing industry within Humboldt County" (letter from Stepan C. Volker, Brecher & Volker LLP, to Bruce Kaneshiro, CPUC, June 1 2000). The EPA Director for the Wiyot Tribe told CPUC Staff that the Tribe is concerned about water diversions, chemical buildup of methyl mercury behind the dams, and adverse effects to fisheries (eels and salmon); they are concerned also about effects on basket-making materials, stating that it is difficult to get "river roots" for basketry due to diminished water flows on the Eel, and people die every year from fishing in dangerous conditions at the mouth of the river. Fisheries are also being damaged by siltation caused by upstream logging (Wiyot Tribe, 2000).

Fishing is viewed as a cultural issue by the Tribes; it connects not only to traditional subsistence but also to ceremonial usage. The Tribes are also concerned about FERC 0077 impacts to cultural resources, ranging from village sites inundated by Lake Pillsbury to sites that are impacted by Pacific Gas and Electric Company access roads (California Indian Legal Services, 2000).

#### **Bundle 11: South Yuba River**

##### ***Drum-Spaulding (FERC 2310)***

**Archaeology.** Table 4.7-15 summarizes the known archaeological resources present within Project Lands associated with the Drum-Spaulding hydroelectric facility. The resources identified are further described below.

**Table 4.7-15 Cultural Resources Identified Within FERC Licensed Areas and Watershed Associated with the Drum-Spaulding Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Rock Creek Reservoir	5	1(P), 1(H)	Y
Wise Forebay	10	1(P/H)	Y
Rucker Lake	50	1(P)	Y
Meadow Lake	20	2(H)	Y
Lake Spaulding	70	5(P), 5(H)	Y
Lake Fordyce	95	2(H)	Y
Drum Forebay	95	1(P), 4(H)	Y
Kidd Lake Sacramento	5	1(P)	Y

**Table 4.7-15 Cultural Resources Identified Within FERC Licensed Areas and Watershed Associated with the Drum-Spaulding Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Kelly Lake Sacramento	20	1(P)	Y
Lake Valley Reservoir	75	1(P), 1(H)	Y
Halsey Forebay	35	1(P)	Y
Bear River Canal	95	2(H)	Y
Bear Valley	99	3(P)	Y
Deer Creek Powerhouse	50	2(H)	Y
Lake Van Norden	75	7(P)	Y
Six Mile Valley	100	1(P), 1(P/H), 1(H)	Y
Watershed Lands	38*	40(P), 7(P/H), 66(H)	Y
<b>Total:</b>		<b>64(P), 9(P/H), 87(H)</b>	

Sources: PAR Environmental 1998p and 2000c

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

The cultural resources summary (PAR, 1998p) identified 160 cultural resources sites in FERC Licensed Areas and Watershed Lands, of which 64 are prehistoric archaeological sites, nine are multiple component sites and 87 are historic or historic archeological sites. According to Denise McLemore, the Forest Archaeologist and Tribal Relations Manager for the Tahoe National Forest, this site inventory includes two groups of intact rock art sites, for which the U.S. Forest Service has attempted to record easements, in the vicinities of Bear Valley and Spaulding Ridge (personal communication, July 20, 2000).

No information is provided regarding the NRHP status of many of these sites; however, PAR Environmental (1998p) states that one site (CA-PLA-699) has been determined to be eligible for the NRHP, and three sites have been determined to be potentially ineligible. Survey coverage of the land parcels ranges from zero to 100 percent: approximately 35 percent of the FERC Lands 40 percent of the Watershed Lands are estimated to have been surveyed, and 13 of the 27 Watershed Land have not been surveyed (PAR, 1998p).

**Historical Resources.** The historical sites identified by PAR Environmental (1998p) include some of the hydroelectric Project facilities, including Wise Powerhouse, Drum Powerhouse I, Cascade Dam, and segments of the Boardman Canal, which have been determined individually eligible for the NRHP. Additionally, the Drum-Spaulding Hydroelectric District (all FERC License Areas and facilities) has been determined eligible for the NRHP as a district. Cascade Dam also appears to have been determined eligible for the National Register.

***Ethnography.*** FERC License 2310 is within Nisenan (Southern Maidu) traditional territory. Washoe people traveled through the licensed area. The Bear Valley area is an area rich in cultural resources of concern to Nisenan people (letter from Donna J. Brint, Program Manager, Todds Valley Miwok-Maidu Cultural Foundation, to Bruce Kaneshiro, CPUC, September 13 2000). Resources of concern include rock art and other archaeological sites (letter from William Slater, District Archaeologist USDA Tahoe National Forest, to Bruce Kaneshiro, CPUC, September 18, 2000) as well as diverse plant resources of potential ethnobotanical concern (letter from Stephen W. Edwards, Director, Regional Parks Botanic Garden, to Bruce Kaneshiro, CPUC, September 14, 2000).

### **Bundle 12: Chili Bar**

#### ***Chili Bar (FERC 2155)***

***Archaeological Resources.*** PAR Environmental (1998q) identified no archaeological sites of any time period within the FERC Licensed Areas, or Watershed Lands associated with the Chili Bar hydroelectric facility; however, no surveys have been recorded within FERC Licensed Areas, and of the five parcels of Watershed Lands associated with the facility, three have no surveys recorded, one parcel has had 50 percent of its area surveyed, and one parcel has had ten percent of its area surveyed (PAR, 2000c).

***Historical Resources.*** As with archaeological resources, PAR Environmental (1998q and 2000c) identified no historical sites within FERC or Watershed Lands. The Chili Bar Powerhouse was constructed in 1965, and would not be considered a potentially historical resource. No information regarding other structures, such as dwelling units, is provided.

***Ethnography.*** FERC License 2155 is within Nisenan (Southern Maidu) traditional territory.

#### **4.7.4.4 Motherlode Regional Bundle**

##### **Regional Setting**

***Archaeological Resources.*** Archaeological research in the Motherlode Region documents 8,000 years of human occupation for the Mokelumne River project and 3,000-4,000 years for both Spring Gap-Stanislaus and Phoenix projects. Prehistoric land use in the central Sierra has been influenced by the movement of people in and out of the area from central California (i.e., the Central Valley) and the Great Basin (i.e., eastern Sierra). A recent review of the existing cultural resources information indicates that 181 known archaeological resources are associated with FERC Project Lands (PAR, 1998q-t). Of particular note is the Mokelumne Canyon Archaeological District that incorporates 92 archaeological sites. Milling stations (e.g., bedrock mortars and milling slicks) are the dominant class of archaeological site types identified in the region. Other site types include lithic scatters, cultural middens, and housepit depressions. Artifacts recovered include projectile points, lithic and ground stone tools, milling equipment, shell beads and pendants, steatite ornaments, and debitage. Historical archaeological sites encountered within the region contain

mining, ranching, railroad, and construction-associated features. The number of known prehistoric sites is small, but given the long history of prehistoric occupation in the area and the limited amount of surveys conducted, it is likely that additional surface reconnaissance in the unsurveyed portions of the Motherlode Region will lead to the identification of additional archaeological sites.

**Historical Resources.** Historic Resources located in the Motherlode Regional Bundle are consistent with the historic resources characterized and summarized for the entire system in Section 4.7.3.

**Ethnographic Resources.** As previously indicated (see 4.7.3), the Motherlode region includes traditional territory of the Eastern (Northern, Central and Southern Sierra) Miwok. Washoe people traveled into the Motherlode region, and some eastern, upper elevation parts of the region were within their traditional territory. Farther to the south, Northern Paiute people traveled into the Motherlode region. Northern Valley Yokuts territory was not far west of the region. The only Pacific Gas & Electric Company ethnographic study pertaining to the Motherlode region is that for the Mokelumne license. Known concerns for ethnographic resources, on the part of contemporary representatives of these groups, are discussed below.

The Todds Valley Miwok-Maidu Cultural Foundation has commented, in general, on cultural resources located within the Motherlode region. A key concern is that there were no cultural resource protection laws in place when the hydroelectric projects were built, so that there was no mitigation of impacts to “Native American cultural resources, burial sites, sacred or ceremonial sites.” The Todds Valley Miwok-Maidu Cultural Foundation has suggested several mitigation measures, including inventories of cultural resources and transfer or stewardship of land to groups that would preserve the resources (letter from Fern Brown, Todds Valley Miwok-Maidu Cultural Foundation, to Bruce Kaneshiro, CPUC, July 19 2000).

Yokut people are generally concerned with protection of burials and ancestral campsites in the Motherlode region (NOP Comment Card from Katherine Perez to Bruce Kaneshiro, CPUC; North Valley Yokut Tribe 2000).

**Bundle 13: Mokelumne River**

***Mokelumne River (FERC 0137)***

**Archaeological Resources.** Table 4.7-16 summarizes the known archaeological resources present within Project Lands. The resources identified are further described below.

**Table 4.7-16 Cultural Resources Identified Within FERC Licensed Areas and Watershed Lands Associated with the Mokelumne River Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Upper Blue Lake Campground	100	1(P)	unknown
Meadow Lake	100	2(P), 1(P/H), 2(H)	unknown

**Table 4.7-16 Cultural Resources Identified Within FERC Licensed Areas and Watershed Lands Associated with the Mokelumne River Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Upper Blue Lake	100	4(P), 2(H)	unknown
Lower Blue Lake	100	3(P), 1(H)	unknown
Upper and Lower Blue Lakes	100	1(H)	unknown
Damsite Campground	100	1(P/H)	unknown
Twin Lake	100	8(P)	unknown
Middle Creek Campground	100	1(P)	unknown
Deer Valley	Unknown	1(P), 5(H)	unknown
Electra Powerhouse and Picnic Area	50+/-		unknown
Electra Picnic Area	100	1(P), 1(H)	unknown
Electra 60 kV Transmission Line Corridor	50+/-	1(P), 2(H)	unknown
Electra-Valley Springs 230 kV Transmission Line Corridor	50+/-	7(H)	unknown
Upper Bear Reservoir	100	-	-
Lower Bear Reservoir	100	6(P)	unknown
West Pt. 60 kV Transmission Line Corridor	50+/-	2(P), 4(H)	unknown
West Point Powerhouse	100	1(H)	unknown
Lake Tabeaud	50+/-	1(P), 1(H)	unknown
Salt Springs 115 kV Transmission Line Corridor and Access Road	50+/-	17(P), 5(H)	Y
Salt Springs Powerhouse	100	(part of a district)	Y
Salt Springs Reservoir	100	9(P), 2(H)	Y
Salt Springs Road	unknown	1(P)	unknown
Moore Creek Campground	100	3(P), 1(H)	unknown
Tiger Creek Conduit	50+/-	13(P), 1(P/H), 5(H)	Y
Tiger Creek Reservoir	100	1(H)	unknown
Cole Creek Diversion Dam	100	2(P)	unknown
Watershed Lands	37*	25(P), 3(P/H), 7(H)	unknown
<b>Total:</b>		<b>93P, 6P/H, 48H</b>	

Sources: PAR Environmental 1998r and 2000d.

\*= Average; P= Prehistoric; H = Historic; P/H = Prehistoric and Historic (multi-component)

To date, approximately 50 percent of the Mokelumne River bundle, including the Tiger Creek transmission line easements, had been surveyed for cultural resources (PAR, 1998r). These surveys of FERC Licensed Areas identified 76 prehistoric archaeological sites, three of which (CA-ALP-155, -167, and -172) are eligible for the NRHP; 41 historical archaeological sites; and three multiple-component sites. The highest concentrations of sites occur in the Tiger Creek and Salt Springs Reservoir areas (PAR, 1998r). One NRHP Archaeological District is also located within

FERC Licensed Areas. No information is available regarding the NRHP status of the remainder of the sites, or whether they have been evaluated for eligibility for the NRHP.

In addition, PAR Environmental identified 25 prehistoric archaeological sites, seven historical sites, and three multiple component site within the Watershed Lands (1998r and 2000d). Survey coverage of Watershed Lands is about 37 percent (PAR, 1998r), and coverage of Watershed Land parcels ranges from zero to 100 percent, with an average coverage, by USGS Section, of approximately 22 percent (PAR, 2000d). No information is provided regarding NRHP status of the sites in Watershed Lands.

As stated above, one NRHP District lies within the FERC Licensed Areas of this bundle. The Mokelumne River Canyon Archaeological District is a NRHP Archaeological District within the Stanislaus and Eldorado National Forests that consists of 92 contributing prehistoric sites of the more than 150 sites included in the Stanislaus National Forest's Area of Special Concern. The Eldorado National Forest is contemplating the nomination of additional prehistoric archaeological sites. Many of these sites are pristine, and the district includes the only known rock art examples in either the Stanislaus National Forest or the Eldorado National Forest. Portions of this district lie in the vicinities of Salt Springs Reservoir, Powerhouse, and 115 kV transmission line corridor, and near the Tiger Creek Conduit (Moskowitz, 2000, personal communication; PAR, 1998r).

Pacific Gas and Electric Company retained Keller Environmental Associates to prepare a Heritage Resources Management Plan for the Mokelumne River hydroelectric facility. This plan is currently in draft form, and includes protective measures such as avoidance, archaeological monitoring, physical protection, and data recovery. The facility (FERC 0175) is currently in the process of relicensing; consequently, the plan has not yet been adopted and implemented.

***Historical Resources.*** No historical resources contribute to the NRHP Archaeological Districts discussed above (Moskowitz, 2000). However, the cultural resources summary cites no studies that actually evaluated the sites' eligibility for the NRHP on an individual basis (PAR, 1998r). Additionally, while not cited as historical resources by PAR Environmental, four of the five powerhouses associated with this hydroelectric facility (all but Salt Springs Unit #2) were constructed between 1931 and 1948. Since they are more than 50 years old, they are considered potentially historical and merit evaluation for NRHP eligibility.

***Ethnography.*** FERC 0137 is located primarily in Northern Sierra Miwok territory. The easternmost upper elevation portions of the project are in traditional Washoe territory. Contemporary Miwok descendants continue to express a high degree of interest in these lands (McLemore, 2000, PAR, 1998r; Wirth Associates, 1985). The Washoe experienced far less adverse an effect to their territory, due to the relatively low historical usage of their territory and the consequently low level of development of the area (Wirth Associates, 1985); however, their territory was affected, and contemporary descendants express a high degree of interest in these lands. This tribal interest, particularly on the part of the Calaveras and Jackson-Ione Miwok,

particularly extends to 50 documented resources of Native American concern on this license's FERC Licensed Areas, and additional, undocumented resources may reasonably be assumed. Resources were documented by ethnographic studies commissioned by Pacific Gas and Electric Company, and compiled in the Mokelumne River Project Cultural Resources Report: Native American Cultural Resources by Wirth Associates (PAR, 1998r, Wirth Associates, 1985). The sites were grouped into seven general categories: religion and ritual (seven sites), food resources (six sites), other resources (three sites), trade (one sites), habitation (27 sites), trails (four sites), and historical events (two sites), and were documented in the general report without specific data regarding location (Wirth Associates, 1985).

All of these resources are of interest to Native Americans, and the primary concerns regarding the resources centered around access by Native Americans, site avoidance by Pacific Gas and Electric Company, particularly with regard to burials and associated artifacts, and preservation of sites whenever possible (McLemore, 2000, Moskowitz, 2000; Wirth Associates, 1985). In cases in which sites could not be avoided, most respondents approved of data recovery from non-burial sites for scientific study; however, they also indicated that a Native American monitor should be present during all archaeological work, and that tribal elders should be consulted regarding the final disposition of any cultural materials found (Wirth Associates, 1985).

Access to these sites is difficult, and is usually available only by trail or the river, which hinders elders. However, much of the public is not as limited in its mobility, and damage to these sites, both inadvertent and deliberate, occurs as a result of public travel through some of these areas. Additionally, construction of the reservoirs associated with this license (particularly the Salt Springs reservoir) inundated several sites. Few gathering sites remain intact as a result of these activities (Moskowitz, 2000).

Consultation with Miwok and Washoe Native American groups by the U.S. Forest Service and Pacific Gas and Electric Company is ongoing, due to the high degree of interest in licenses implemented on Stanislaus and Eldorado National Forest lands. Issues include protection of existing resources, and the disposition of human remains and items of cultural patrimony (i.e., items of high, tribal significance that cannot be owned or spoken for by individuals) under the Native American Graves Protections and Repatriation Act (McLemore. 2000, Moskowitz. 2000; and PAR, 1998r).

The Blue Lakes were a favored spot for Washoe hunting of mountain quail (Nevers 1976, Downs, 1966). An ethnographic study was conducted for the license (Woods, 1982), and sacred sites are known to be present within FERC License 0137 boundaries; for instance site CA-Cal-318 on the Stanislaus National Forest is a site "being adversely effected [sic] by the reservoir and recreationists" that is "very significant and important to the local Native American tribes." A Heritage Resource Management Plan for the license is not yet completed (Del Villar. 2000). The Federal Energy Regulatory Commission is consulting with seven different groups of Miwok people in regard to the Mokelumne River license (Crow. 2000).

The chairman of the Sierra Native American Council (Miwok) indicated that members of his group are interested in preserving access to several areas in the Mokelumne River drainage. Of particular importance are two places in the vicinity of Tiger Creek Reservoir. Pedro O'Connor was one of the last chief dancers, and he had a home and round house at Middle Bar, near the Tiger Creek bridge. Yellow Jacket was one of the captains who lived nearby. People continue to visit these areas, going there for gathering (Sierra Native American Council, 2000).

The Ione Bank of Miwok has expressed concern about protection of cultural resources at, and access to, areas around Electra Powerhouse, Tiger Creek, and Salt Springs (Ione Bank of Miwok, 2000).

**Bundle 14: Stanislaus River**

***Spring Gap-Stanislaus (FERC 2130)***

**Archaeological Resources.** Table 4.7-17 summarizes the known archaeological resources present within Project Lands. The resources identified are further described below.

**Table 4.7-17 Cultural Resources Identified Within FERC Licensed Areas and Watershed Lands Associated with the Spring Gap-Stanislaus Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Relief Reservoir	100	2(H)	Y
Strawberry Reservoir	95	1(P), 7(H)	unknown
Spring Gap Powerhouse	50	1(P), 4(H)	Y
Sand Bar Dam	5	1(H)	unknown
Stanislaus Powerhouse	100	2(P), 2(H)	unknown
Stanislaus Forebay	20	1(H)	unknown
Stanislaus Afterbay	100		unknown
Utica Ditch	15	4(H)	unknown
Ross Reservoir	100	2(H)	unknown
Watershed Lands	47*	8(P), 7(H)	unknown
<b>Total:</b>		<b>12(P), 29(H)</b>	

Note: One historical site spans Utica Ditch and Ross Reservoir.

Sources: PAR Environmental 1998s and 2000d

\*= Average; P= Prehistoric; H = Historic; P/H = Prehistoric and Historic (multi-component)\

The cultural resources summaries prepared for the Spring Gap-Stanislaus hydroelectric facility (PAR, 2000d) identified four prehistoric archaeological sites and 23 historical archaeological sites within FERC Licensed Areas, and eight prehistoric sites and seven historical sites within Watershed Lands. Additionally, Exhibit E of the FERC License Application for this facility included a *Historical and Archaeological Resources Study* (PG&E Co., 1999b), which identified three additional archaeological sites in the vicinity of Strawberry Reservoir. None of these sites have

been cited as eligible for the NRHP; however, none of the sites appear to have been evaluated for eligibility.

An average of 75 percent of the FERC Licensed Areas, and 47 percent of the Watershed Lands for the facility have been surveyed.

***Historical Resources.*** The Proponent's Environmental Assessment (PG&E Co., 1999a) states that one historical site, the Spring Gap Tram, is eligible for the NRHP. Additionally, the Relief Dam Construction Camp (CA-TUO-2363H) was identified as eligible for the NRHP in historical and archaeological resources study (PG&E Co., 1999b). The study also indicated that a portion of the Sugar Pine Railroad grade lies within FERC Licensed Areas for this facility, in the vicinity of the Spring Gap Powerhouse complex. While the NRHP status of this portion of the grade is unknown (PG&E Co., 1999b), portions of the grade ("Grade A") within the FERC Licensed Areas of the Phoenix hydroelectric project (FERC 1061) have been determined to be eligible for the NRHP (Davis-King and Associates, 1994).

Additionally, according to the *Overview of PG&E Hydro Facilities and Operation* (PG&E Co., 2000), the Spring Gap and Stanislaus powerhouses were constructed in 1921, and 1940, respectively. As structures that are more than 50 years old, they may be considered potentially eligible for the NRHP, but do not appear to have been evaluated as such.

Historical structures that were determined by Pacific Gas and Electric Company not to be eligible for the NRHP are Relief Dam and Reservoir (PG&E Co., 1999b), the Stanislaus Flume/Ditch System, and a historical tramway system surrounding the Spring Gap-Stanislaus facilities (PG&E Co., 1999b).

***Ethnographic Resources.*** FERC 2130 is located in Central Sierra Miwok territory. No ethnographic resources inventory or substantive, systematic consultation with local Native Americans has been conducted for this license (PG&E Co., 2000b). The Central Sierra Me-Wuk Cultural and Historic Preservation Committee, representing the Tuolumne Band of Me-Wuk Indians, pointed out that there have been no baseline studies of cultural resource studies for this license. The Tuolumne Band has expressed concern about impacts to traditional cultural properties (sacred and ceremonial sites), burial areas, and gathering areas in the license area (letter from Reba Fuller, NAGPRA Project Director, Central Sierra Me-Wuk Cultural and Historic Preservation Committee, to Bruce Kaneshiro, CPUC, June 1 2000).

#### ***Phoenix (FERC 1061)***

***Archaeological Resources.*** Table 4.7-18 summarizes the known archaeological resources present within Project Lands associated with the Phoenix hydroelectric facility. The resources identified are described further below, by type.

**Table 4.7-18 Cultural Resources Identified Within FERC Licensed Areas and Watershed Associated with the Phoenix Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP ?
Lyons Reservoir	100	5(P), 1(P/H), 2(H)	Y
Main Tuolumne Ditch	100	3(H)	Y
Phoenix Powerhouse	100	1(P/H)	Y
Watershed Lands	80*	8(H)	unknown
<b>Total:</b>		<b>5(P), 2(P/H), 13(H)</b>	

Sources: PAR Environmental 1998t and 2000d.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

According to the cultural resources summary prepared for this hydroelectric facility by PAR Environmental (1998t), five prehistoric archaeological sites, two multiple-component sites, and five historic sites are located within FERC Licensed Areas, and eight historic sites are located within Watershed Lands. One hundred percent of the FERC License Areas and an average of 80 percent of the Watershed Lands have been previously surveyed.

All of the prehistoric sites, four historical archaeological sites, and one of the multiple-component sites located in FERC Licensed Areas were evaluated for NRHP eligibility by the Revised CRMP (CRMP) prepared for the Phoenix hydroelectric facility (Davis-King and Associates, 1994). Of the prehistoric sites, CA-TUO-2110 was determined not to be eligible for the NRHP; as were CA-TUO-2113, -2140, and -2141 due to erosion from reservoir fluctuation and river flows. Other sites determined not to be eligible were the historical components of CA-TUO-2112/H (which was initially thought to be eligible) and CA-TUO-935/H, and the entire CA-TUO-2139H site (Davis-King and Associates, 1994).

However, CA-TUO-2111, in the vicinity of Lyons Reservoir, was determined to be eligible for the NRHP, and the Revised CRMP found the site to be subject to adverse effects from annual inundation by Lyons Reservoir, recreation (including looting), and possibly cattle grazing (pp. 24-26). Pacific Gas and Electric Company opted for preservation, stabilization (using rip-rap), and monitoring by an archaeologist and by a member of the Tuolumne Tribal Council over a five-year period (until 2000), after which the effectiveness of the program would be evaluated by Pacific Gas and Electric Company and SHPO. Recommended documentation of monitoring activities included the use of camcorder-type recording devices, in order to provide pictorial and narrative information (Davis-King and Associates, 1994).

In addition to CA-TUO-2111, the prehistoric (“Indian”) component of CA-TUO-935/H was considered to be eligible for the NRHP by the Revised CRMP, and in fact, was cited in the

document as “one of the more important sites known in Tuolumne County,” since it documents recurrent and intensive occupation with at least three (and possibly four) Indian components (Davis-King and Associates, 1994). Although none of the historical components of the site were determined to warrant management, due to insufficient remaining values, the Indian components merit further protection, and many remain largely undisturbed, although evidence of ongoing adverse effects from maintenance activities, natural processes, and looting and vandalism was observed. However, Pacific Gas and Electric Company implemented measures to reduce facility - related effects. While weekly monitoring of this site occurs, the remote location of and easy public access to the facilities hinders protection efforts: one petroglyph boulder was missing from the site, and some surface scraping was observed during the time of preparation of the Revised CRMP (Davis-King and Associates, 1994). Aside from looting, erosion may respond to mitigation or stabilization efforts, and the Revised CRMP provides a stabilization program and a native, perennial grass replanting and seed broadcast program. Monitoring of the planted area is also recommended to occur: if the replanting fails, the stabilization plan would be subject to further review. Archaeological monitoring is also recommended at least annually, to ensure that erosion has halted, and that further looting has not occurred (Davis-King and Associates, 1994).

All artifacts recovered during excavations conducted for this study between 1987 and 1993 by Davis-King and Associates were curated at the Tuolumne County Museum in Sonora, with the concurrence of the Tuolumne Me-Wok Tribal Council. At the time of preparation of the Revised CRMP, negotiations between the Museum Board of Directors and the Tribal Council were underway regarding curation of the materials excavated in 1993 (Davis-King and Associates, 1994).

***Historical Resources.*** In addition to the historical components of the multiple-component sites, four historical sites are known within FERC Licensed Areas, and seven historical sites are known within Watershed Lands. The Revised CRMP examined the historical sites located within FERC Licensed Areas (PAR, 1998t; Davis-King and Associates, 1994).

Sites CA-TUO-2142/H (the Main Tuolumne Ditch) and -2143/H (a former ditch maintenance site known as Middle Camp, dated as early as 1862) were identified in the Revised CRMP as eligible for the NRHP as contributing elements to a historical district. Since the site is part of an operational system, and since changes to the system were proposed in the License Agreement, preservation of the resource is best achieved through continued repair and maintenance than by inhibiting change. The data potential of Middle Camp, however, is unknown; however, it is a contributing element to the Main Tuolumne Ditch system (Davis-King and Associates, 1994).

A portion of the alignment of Sugar Pine Railroad (CA-TUO-1409H), used mostly for logging, also occurs within FERC Licensed Areas near Lyons Reservoir. Two grades of the alignment survive today: two miles of Grade A, built in 1912, and Grade B, built in 1929. Of these, only Grade A was determined by the SHPO to be eligible for the NRHP. Grade B was entirely re-graded, and now serves as a dirt maintenance road and as a section of Forest Service Road 3N14; consequently, it was determined not to be eligible for the NRHP.

Grade A of the Sugar Pine Railroad suffers from two primary, facility -related impacts: looting and reservoir fluctuation, and since the eventual destruction of this resource is certain, treatment of Grade A will occur as “management as a ruin.” Pacific Gas and Electric Company will contribute funds to the Tuolumne County Historic Society for the publication of works regarding the history and operation of the Sugar Pine Railroad, and Pacific Gas and Electric Company will erect an interpretive sign and prepare a walking-tour brochure for visitors. Annual monitoring would be conducted to ensure that ongoing recreational impacts do not affect the prescribed treatment of the Grade. The Revised CRMP also recommended additional protective measures for the grade itself to address the kinds of effects a standing ruin might be subjected to from operational and recreational activities in the area. (Davis-King and Associates, 1994).

***Ethnography.*** FERC License 1061 is located in Central Sierra Miwok territory. According to Davis-King Associates (1994) during the relicensing process for FERC 1061, Native American groups were consulted during all phases of cultural resources field investigations regarding sensitive resources within the Phoenix license area. One historical archaeological site in the vicinity of the Phoenix Powerhouse (CA-TUO-935/H) was identified as a traditionally significant area to the Tuolumne Me-wuk. No sites of significance to Native Americans are known to occur in the vicinity of Lyons Reservoir or the Main Tuolumne Ditch (PAR, 1998t; Davis-King and Associates, 1994). However, the Central Sierra Me-Wuk Cultural and Historical Preservation Committee, representing the Tuolumne Band of Me-Wuk Indians, has stated that there have been no baseline studies of cultural resource studies for the license, and the Tuolumne Band has expressed concern about impacts to traditional cultural properties (sacred and ceremonial sites), burial areas, and gathering areas within Phoenix lands.

#### **Bundle 15: Merced River**

##### ***Merced Falls (FERC 2467)***

***Archaeological Resources.*** One survey of the Merced Falls FERC Licensed Areas was previously completed. It occurred in the vicinity of the Merced Falls Powerhouse and Reservoir area, covered approximately 15 percent of the areas, and identified no archaeological sites. No surveys have occurred within Watershed Lands associated with the Merced Falls hydroelectric facility (PAR, 1998u).

***Historical Resources.*** An 1853-1869 General Land Office plat refers to possible historical features in the vicinity of this hydroelectric facility, such as “Road to Fort Miller,” “Stockton and Mariposa Turnpike,” “Nelson’s House,” “Ditch,” and “Philipes Ferry.” However, the single (incomplete) survey conducted in the FERC licensed area identified no historical structures (PAR, 1998u). Additionally, the Merced Falls powerhouse was constructed in 1938, and may potentially be eligible for the NRHP, but has not been evaluated.

***Ethnographic Resources.*** No ethnographic resources inventory or substantive, systematic consultation with local Native Americans has been conducted for this license (PG&E Co., 2000b).

A spokesperson for the American Indian Council/Southern Sierra Miwuk in Mariposa County noted his group's concerns for protection of archaeological sites and burials. The group is also concerned about preserving access to basketry materials (American Indian Council/Southern Sierra Miwuk 2000). FERC 2467 is near Northern Valley Yokuts territory, and a spokesperson for the North Valley Yokut Tribe commented that Yokut descendants continue to travel into the area of Merced Falls and beyond, and are concerned about cultural resources there (NOP Comment Card from Katherine Perez to Bruce Kaneshiro, CPUC; North Valley Yokut Tribe, 2000).

#### **4.7.4.5 Kings Crane-Helms Regional Bundle**

##### **Local Setting**

##### ***Archaeological Resources***

Archaeological research in the Kings Crane-Helms Region documents 7,000 to 12,000 years of human occupation for some facility sites; however, the last 2,000 to 4,000 years are better known for all facilities. A recent review of the existing cultural resources information indicates that over 100 known archaeological resources are associated with FERC License Areas; 94 are prehistoric or mixed component sites (PAR, 1998j-o).

Few sites have been excavated and most were recorded during survey for timber sales, licensing agreements or other development projects. Sites are characterized as small and large middens, some with house pits and bedrock milling stations, lithic scatters, and bedrock mortars. Artifacts identified include projectile points, lithic and ground stone tools, milling equipment, steatite, pottery, and debitage. Historic archaeological sites encountered within the region contain homestead, mining, and construction-associated features. Relatively few prehistoric sites have been identified in the Kings Crane-Helms facility area; this may be due to the fact that the cultural resources inventory for Crane Valley, Haas-Kings River, and Tule River FERC lands is based on survey and literature reviews conducted over 15 years ago. It is very likely that an updated records search and survey will lead to the identification of additional archaeological sites.

##### ***Historical Resources***

Historic resources located in the Kings Crane-Helms Regional Bundle are consistent with the nature of historic resources characterized and summarized for the entire system in Section 4.7.3.

##### ***Ethnographic Resources***

As previously indicated (see Section 4.7.3), the Kings Crane-Helms region includes traditional territory of the Numic-speaking Monache or Western Mono, several groups of Yokutsan-speaking Foothills Yokuts, and one group of Southern Valley Yokuts people. Some of the licenses in the region are also rather close to Northern Valley Yokuts territory. Pacific Gas and Electric Company ethnographic studies pertaining to the Kings Crane-Helms region include studies for the Crane Valley license, the Haas-Kings River license, Balch Camp, and the Tule River license. Known

**4.7 Cultural Resources**

concerns for ethnographic resources, on the part of contemporary representatives of these groups, are discussed on a license specific basis below.

Representatives of the Mono Nation attended a public meeting in Folsom and expressed a wide range of concerns about cultural resources in the Kings Crane-Helms region, including land use by Tribal members; wildlife, plant and fish habitat (Public Meeting Summary Folsom 05/08). Representatives from North Fork Rancheria expressed concern about continued access to Pacific Gas and Electric Company lands for traditional ceremonies and for collection of basketry materials. Yokut people are generally concerned with protection of burials and ancestral campsites in the project areas, and believe that “water source areas should be given back to the aboriginal people (Native Indians)” (NOP Comment Card from Katherine Perez to Bruce Kaneshiro, CPUC; North Valley Yokut Tribe, 2000). A Wukchumni representative had no site-specific concerns, but articulated concerns regarding continued access to traditional lands and resources (Wukchumni Tribe, 2000).

**Bundle 16: Crane Valley**

***Crane Valley (FERC 1354)***

**Archaeological Resources.** Table 4.7-19 summarizes archeological resources present within Project Lands associated with the Crane Valley facility.

**Table 4.7-19 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Crane Valley Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Crane Valley Reservoir (Bass Lake)	100	15 (P), 2 (P/H), 13 (H)	Crane Valley Archaeological District
Corinne Reservoir	100	1 (P/H), 1 (H)	unknown
Manzanita Lake Fork1 (H)	100	1 (P), 1 (H), 3 (P/H)	vicinity sites are included in Crane Valley Archaeological District
Chilkoot Lake	unknown	1 (P)	unknown
Ditch #1	100	1 (P)	unknown
Diversion dams, conduits, penstocks, San Joaquin Powerhouse 1A	none	unknown	unknown
<b>Total</b>		18 (P), 6 (P/H), 15 (H)	unknown; Crane Valley Archaeological District includes 51 properties

Sources: PG&E Co, 1986a, PAR Environmental 1998v, PG&E Co, 1999:Table 13-14.1.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

Archaeological survey in 1984 and 1985 (IRI and TCR, 1985) identified 39 archaeological sites within FERC License Areas (PAR, 1998v). PAR Environmental states that 85 percent of the land within FERC license boundaries was surveyed for archaeological sites. The FERC license's Exhibit E states that numerous facilities, including diversion dams, conduits, penstocks, and San Joaquin Powerhouse 1A, were not surveyed (PG&E Co., 1986a). Additionally, the APE as defined excluded certain areas.

PAR Environmental (1998v) reported only that IRI and TCR (1985) identified two sites within FERC license boundaries as being listed on the NRHP of Historic Places. PAR Environmental (1998v) does not mention the Bass Lake Archaeological District, discussed below. Archaeological testing was initiated at eight sites, but terminated at one upon the request of Northfork Mono people (PG&E Co., 1986a). Pacific Gas & Electric Company did not evaluate sites that were not affected by existing or project facilities (PG&E Co., 1986a). A Bass Lake Archaeological District was proposed for NRHP nomination as early as 1982 (PG&E Co., 1986a). Pacific Gas and Electric Company's consultant proposed a Crane Valley Archaeological District, to include the Bass Lake Archaeological District but also including properties along the North Fork Willow Creek and near Manzanita Lake (PG&E Co., 1986a). A total of 51 archaeological sites are within the proposed district, and 21 of those are within Project Lands.

Potential impacts were identified to 18 sites, and active management measures were proposed. Short-term monitoring during construction was proposed for seven sites and a combination of erosion control and long-term photo monitoring with potential for development of additional measures was proposed for eleven sites at Bass Lake. In addition, Pacific Gas and Electric Company committed to a vandalism awareness program to assist in decreasing impacts to sites by collectors (PG&E Co., 1986a).

The FERC issued an Environmental Assessment for the license, and recommended that the Pacific Gas and Electric Company's proposed CRMP be implemented. FERC also recommended that discovery procedures be included, to require consultation with the SHPO and Forest Service about any "land-clearing, land-disturbing, or spoil-producing activities within the project boundaries, other than those specifically authorized in the license" (FERC 1992).

***Historical Resources.*** The inventory of historical structures conducted for this facility is not addressed by the PAR Environmental report (1998v). Pacific Gas and Electric Company's Exhibit E for the facility, however, makes clear that both historical context and hydroelectric system properties were inventoried and evaluated for NRHP eligibility. Pacific Gas and Electric Company's consultant considered the five Crane Valley facility powerhouses (Wishon; San Joaquin 1A, 2 and 3; and Crane Valley Powerhouse) not to be NRHP eligible, either individually or as a system, due to "loss of integrity of design, materials, workmanship, and to a lesser degree, setting, feeling, and association" (PG&E Co., 1998a).

***Ethnographic Resources.*** Previously published literature suggests rich ethnographic resources in the licensed area. Bass Lake is only one of several reservoirs that “inundated important areas of native inhabitation” by the Chukchansi (Spier, 1978b). Gifford (1932) recorded dozens of Mono campsites in the Crane Valley vicinity. “Tsopotipau, at the electric power site on the large bend of the [San Joaquin] river below the entrance of the North Fork, was Toltichi [Yokuts]” (Kroeber, 1925). This village was at the site of the A. G. Wishon Powerhouse.

An intensive ethnographic study of the Crane Valley licensed area was commissioned by the Pacific Gas and Electric Company in 1984-1985 (IRI and TCR, 1985). The study devoted attention to three tribal groups: the Northfork Mono directly in the Crane Valley area, the Chukchansi Yokuts to the west, and the Pohonochi Southern Miwok a short distance north of Crane Valley (PG&E Co., 1986a). Ethnographic contacts were primarily with two groups: Wassama Roundhouse Association, from Ahwahnee, and the Northfork Mono of North Fork (PG&E Co., 1986a).

Native American consultants identified ten archaeological sites as known ethnographic locations (PG&E Co., 1986a:E4-79). Areas where traditional plants are gathered were identified as including the North and South Forks of Willow Creek, Bass Lake, and Manzanita Lake (for more detail, see Pacific Gas and Electric Company, 1986a:E4-82). The report by IRI and TCR (1985) demonstrates that the project area was within traditional territory of the Chukchansi Yokuts and Northfork Mono, and that the area is still used for gathering of botanical materials (PAR Environmental 1998v:2).

Pacific Gas and Electric Company committed to voluntary ethnographic mitigation measures. Regarding the Sierra Mono Museum: “Licensee intends to continue to pay for curation. In addition, although not required for compliance with the National Historic Preservation Act, Licensee intends to provide a small grant to the museum” (PG&E Co., 1986a:E4-144). “Although not required for compliance with the National Historic Preservation Act, Licensee intends to coordinate with the National Park Service for assistance in the museum program development (PG&E Co., 1986a:E4-145).

As part of the relicensing effort, Pacific Gas and Electric Company proposed a variety of ethnographic mitigation measures, including a vandalism awareness program, an erosion control program at Bass Lake, provision of archaeological information to Native Americans, Native American participation in archaeological research, curation of archaeological materials at the Sierra Mono Museum, further consultation with Native Americans (especially the Northfork Mono) about license-related impacts to Willow Creek riparian resources, habitat enhancement in the Manzanita Lake area and possibly along Willow Creek, revegetation with basketry plants along Willow Creek, coordination of “reasonable access to Licensee’s property for visits to designated botanical gathering areas” (4 locations are specified), library development assistance to the Sierra Mono Museum and the Wassama Roundhouse Association, assistance with audio and video recording, provision of a grant to the building fund for Sierra Mono Museum, provision of technical assistance to the Sierra Mono Museum and Wassama Roundhouse Association, provision of training to a

museum staff person, and distribution of cultural resource studies to the public (PG&E Co., 1986a:E4-162—168).

The FERC issued an Environmental Assessment for the license, and recommended that the Pacific Gas and Electric Company proposed cultural resources management plan be implemented “in cooperation with local Native American groups” (FERC 1992:49-50).

The Crane Valley Project Committee conducted interviews with Mono people in 1996, for recommendations to FERC regarding issuance of a new license for the Crane Valley Project. They identified three key recommendations (CVPC 1997:86-93):

1. A process of dialogue and negotiation should be initiated between Pacific Gas and Electric Company and “the full array of Native American tribes and bands that have resource interests within the project boundaries”, to include the North Fork Rancheria, Sierra Mono Tribal Council, the Southern Miwok (Wassama Roundhouse Association, from Ahwahnee), Chukchansi, and Cold Springs Rancheria. Issues to be addressed in negotiation include:
  - Access to areas to gather plants for basket making and for mushroom gathering;
  - Management and care of the plants associated with traditional crafts;
  - Protection of the pounding rock [bedrock mortar, BRM] sites;
  - Herbicide protocols;
  - Curation of traditional artifacts at the Sierra Mono Museum;
  - The provision of indemnification against liability and the need for a legal entity able to provide such indemnification;
  - The preparation of maps of areas to which permission for access and management will be granted; [and]
  - The development of written plan protocols for any proposed vegetation and site management activities.
2. Provision of ethnographic studies to the Native American Community; and
3. Museum support.

The Crane Valley Project Committee (CVPC 1997:150-152) also identified the following issues to FERC:

- Need for archaeological monitoring during construction activities at recreational facilities;
- Continued implementation of the Bass Lake Erosion Control Plan;
- Case-by-case mitigation or monitoring to prevent vandalism and effects of recreational use on cultural resources;
- Native American participation in future project-related archaeological activities;
- Library and museum support;
- Access to gathering areas; and,
- Habitat enhancement and revegetation.

The Tribal Chairperson for North Fork Mono Rancheria told CPUC Staff that the Tribe is concerned about having continued access to Pacific Gas and Electric Company lands for gathering, and wants to ensure the protection of cultural resources near Bass Lake. The Tribal Chairperson also indicated that the group has informal agreements with Pacific Gas and Electric Company, for access to lands around Bass Lake; archaeological protection is a major concern (North Fork Mono

Rancheria, 2000). North Fork Mono Rancheria has formally stated their concerns for preservation of archaeological and burial sites, and continued access to lands around Bass Lake for gathering plant materials (letter from Delores Roberts, Tribal Chairperson, to Bruce Kaneshiro, CPUC, September 21, 2000). The Chairperson for the North Fork Mono Tribe, a separate group lacking Federal recognition, told CPUC Staff that his group is also concerned about agreements with Pacific Gas and Electric Company.

A spokesperson for the Picayune Rancheria of Chuckchansi commented that some of their members have agreements (presumably verbal) to go in and gather acorns, basketry materials, and other native plant products. He expressed concerns for continued access. He recommended that land outside FERC boundaries should go to “people who’ll preserve the land” (Picayune Rancheria, 2000). A spokesperson with the Chuckchansi Tribe (separate from the Federally recognized Picayune Rancheria) commented that his group is concerned about losing access to basketry materials and medicinal plants, or losing access to any of the areas they still have access to (Chuckchansi Tribe, 2000).

Information regarding consultation with Native Americans regarding impacts to traditional cultural properties and other ethnographic resources, subsequent to the Pacific Gas and Electric Company studies, is not available; Crane Valley Project Committee comments (CVPC, 1997) suggest that consultation remains to be initiated. Pacific Gas and Electric Company has not implemented ethnographic mitigation measures, pending receipt of a new license (Sierra National Forest, 2000b). This is reinforced by comments from Native people; it was stated that after recommendations went to FERC “none of it went forward” and subsequent consultation “has been very weak” (North Fork Mono Tribe, 2000). Pacific Gas and Electric Company allows Native American access to Pacific Gas and Electric Company lands near Bass Lake for gathering traditional plants, and Native Americans have asked that the arrangement be formalized; Pacific Gas and Electric Company has refused to document the arrangement because of liability concerns (Sierra National Forest, 2000a).

#### **Bundle 17: Kerckhoff**

##### ***Kerckhoff (FERC 0096)***

***Archaeological Resources.*** Table 4.7-20 summarizes archeological resources present within Project Lands associated with the Kerckhoff facility.

The project area was surveyed, with varying levels of intensity, in 1976 and 1977 (Varner and Bernal, 1976, Varner, 1977). Thirteen archaeological sites, two of which were found to be significant were identified (PG&E Co., nda). A later report, possibly reflecting additional survey (e.g., Varner, 1983 and Wren, 1994), identified twenty-three sites but only one property on the NRHP (PAR, 1998w).

PAR Environmental (1998w) estimated overall 95 percent survey for FERC License Areas, and the survey of Watershed Lands ranged from 0 to 100 percent. No sites appear to have been evaluated for NRHP eligibility.

**Table 4.7-20 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with The Kerckhoff Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Kerckhoff Reservoir	100	20 (P), 3 (H)	Y
Water Conveyance System	none	unknown	unknown
Kerckhoff Powerhouses 1 and 2	60	unknown	unknown
<b>Total:</b>		<b>20 (P), 3 (H)</b>	<b>Y</b>

Sources: PAR Environmental (1998w), PG&E Co, 1999:Table 13-14.2.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

**Historical Resources.** The Madera County General Plan lists Kerckhoff Lake as a “potential site of local historical significance” (Madera County, 1988). Kerckhoff Powerhouse 2 is “within the Squaw Leap Archaeological District, which is listed on the NRHP” (PAR, 1998w); however, the powerhouse was constructed in 1983. Powerhouse 1 apparently has not been evaluated for eligibility to the NRHP.

**Ethnography.** A Toltichi Yokuts settlement was located “on the north shore of Kerckhoff Lake.” The south side of the San Joaquin is in Kechayi Yokuts territory (Wood and Payen, 1969; PG&E Co. nda). The settlement was Tsopotipau, at the site of the A. G. Wishon Powerhouse (Kroeber, 1925). Pacific Gas and Electric Company prepared no ethnographic study for relicensing of the Kerckhoff Project in the 1970s (PG&E Co., 2000).

## **Bundle 18: Kings River**

### ***Helms Pumped Storage (FERC 2735)***

**Archaeological Resources.** Table 4.7-21 summarizes archeological resources present within Project Lands associated with the Helms Pumped Storage facility.

The Licensee defined an APE to include powerhouse and facility, 21 kV pole lines, a support facility and proposed housing (PG&E Co., 1988). Courtright and Wishon Reservoirs, which are affected by frequently fluctuating water levels associated with operation of the Helms facility, were not included. Licensee’s defined APE was surveyed piecemeal by eight different archaeologists (PG&E Co., 1988). Four archaeological sites had been identified (PG&E Co., 1988). Licensee proposed to avoid impacts to all sites (PG&E Co., 1988). The PAR Environmental report (1998x) noted 25 archaeological sites “associated with” the Helms Project, but these are within Watershed

Lands. Five percent of FERC Lands have been surveyed for cultural resources (PAR, 1998x). No evaluations of significance for archaeological sites appear to have been conducted.

**Table 4.7-21 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Helms Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
FERC lands (excluding Courtright and Wishon Reservoirs)	5	None	unknown
Watershed Lands	23*	25	unknown
<b>Total:</b>		<b>25</b>	<b>unknown</b>

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

**Historical Resources.** To date no historical properties have been identified within FERC licensed lands (PG&E Co., 1988).

**Ethnographic Resources.** The Kings River Bundle’s Helms Pump Storage facility is within the territorial influence of the Holkoma Mono (Cold Springs Rancheria) and Wobonuch Mono. There was no project-specific consultation with Native Americans regarding potential impacts to traditional cultural properties and other ethnographic resources.

**Haas-Kings River (FERC 1988)**

**Archaeological Resources.** The FERC license area for Haas-Kings River is described as having been subjected to 100 percent survey (Riddell, Olsen, and Hastings, 1972; Payen, 1974; Wren, 1975; Greenwood and Foster, 1982). When a proposed Rancheria Creek Diversion was added, additional survey provided 100 percent coverage of that area (Greenwood and Foster, 1983). A Relicensing Exhibit E for the facility notes that 13 archaeological sites (two historical and 11 prehistoric) were identified within the original APE, and an additional eleven prehistoric sites were identified in the Rancheria Creek Diversion area (PG&E Co., 1984). The Exhibit E for relicensing (PG&E Co., 1984) identified twenty-two sites in the APE, rather than twenty-four. The PAR Environmental Report (1998y) and the Pacific Gas and Electric Company’s Hydrodivestiture Proponent’s Environmental Assessment (PG&E Co., 1999), however, note only four sites (two historical and two prehistoric) within the FERC licensed area. The discrepancy may result primarily from deletion of Teakettle Creek, Long Meadow Creek, and Rancheria Creek sites from the FERC Licensed Area; a later Relicensing Application Exhibit E notes that the Teakettle Diversion “has since been deleted from this application” (PG&E Co., 1985) and the Final EA for the license mentions the “previously proposed Long Meadow Creek and Rancheria Creek diversions” (FERC and Sierra National Forest, 1996).

The PAR report's coverage of FERC lands is based solely on a 1982 report, and it does not reference any sites recorded later (1998y). An Exhibit E for a License Amendment also notes only the four sites within the FERC licensed area (PG&E Co., 1986b), and is selectively drawn; it does not include the operational headquarters at Balch Camp (see Balch discussion below). Additionally, there is no available information regarding Greenwood and Foster's (1982) survey of the inundation zone at Courtright and Wishon reservoirs. There may be presently unknown sites in the inundation zone subject to impact.

Eleven of the known sites are significant (PG&E Co., 1984), including two significant sites at Courtright Reservoir, two significant sites at Teakettle Creek Diversion Dam No. 2, and one significant site at the Long Meadow Diversion (PG&E Co., 1984). Two significant sites are associated with the Rancheria Creek Diversion (PG&E Co., 1984).

**Table 4.7-22 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Haas-Kings River Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Courtright Reservoir	100	1 (P), 1 (H)	Y
Wishon Reservoir	100	1 (H)	unknown
Diversions and Water Conveyance System	unknown	unknown: at least 7 of unknown type	unknown
Kings Powerhouse	100	1 (P)	unknown
Watershed Lands	1	3 (P), 1 (H)	unknown
<b>Total:</b>		<b>5(P), 3(H), at least 7 others of unknown type</b>	<b>Y</b>

Sources: PAR Environmental (1998y), Pacific Gas and Electric Company 1984.

\*=Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

**Historical Resources.** Only one standing historical structure recorded as site CA-FRE-1632H, was identified, evaluated as significant, and found to be potentially affected by the facility (PG&E Co., 1984). Pacific Gas and Electric Company proposed to post the site and monitor its condition. The Federal Energy Regulatory Commission and Sierra National Forest (1996) issued a Final Environmental Assessment for the license, stipulating that the Pacific Gas and Electric Company develop and implement a CRMP to including provision for a cultural resources trust fund for maintenance of CA-FRE-1632H.

**Ethnographic Resources.** Haas-Kings River is "within the territorial influence" of the Holkoma Mono (Cold Springs Rancheria) and the Wobonuch Mono (Dunlap) (PG&E Co., 1984; PG&E Co, 1986b).

The consultant report cited states that Haas-Kings River facility has been “controversial ... among the Cold Springs Mono people” (Theodoratus et al, 1985). Wobonuch and Holkoma Mono people “feel strongly that [Kings River area] archaeological resources should be carefully protected” (Theodoratus et al, 1985). Concerns for archaeological sites have been widely expressed; Mono people are especially concerned about disturbance of archaeological sites that may contain human burials, or where religious/medical activities may have taken place. They wish to be informed of all archaeological research within their traditional territory, and want to be involved in excavations as paid monitors. A reburial policy is desired, and people have expressed concern that any artifacts removed from sites be kept in Fresno County (Greenwood and Foster, 1982, 1983; TCR, 1982; Theodoratus et al, 1985).

More specifically, the consultants noted that:

- Although “little traditional use is now made of the project area” Mono people “wish to see the botanical and wildlife resources of this region managed in a manner which will maintain (or regenerate) plant and animal species of importance to the Mono people” (Theodoratus et al, 1985).
- Mono people are specifically concerned about Project effects on deer and on fishery resources (Theodoratus et al, 1985).
- Maxon Dome and other granite domes northeast of Courtright Reservoir may be associated with the Three Sisters myth, but ethnographic research failed to confirm this possibility (Theodoratus et al, 1985).
- Traditional plants were identified in the Wishon Reservoir area, but no contemporary gathering activities are known to occur in the area (Theodoratus et al, 1985).
- Granite Gorge, below the Wishon Reservoir, was a traditional fishing area before the stream was dewatered as a result of the Haas Powerhouse. The stream was also known as an area inhabited by malevolent Water Babies (Theodoratus et al, 1985).
- Proposed and existing diversion areas in the Haas-Kings River vicinity provide habitat for a wide variety of traditional plants, including basketry materials, and Western Mono people indicated interest in collecting in these areas (Theodoratus et al, 1985).
- Two archaeological sites of concern to Mono people are located near Teakettle Creek, where the Pacific Gas and Electric Company proposed a diversion dam (Theodoratus et al, 1985).
- Rancheria Creek, a tributary of the Kings River located between Lake Wishon and the Black Rock Reservoir, was once the site of a proposed dam and diversion tunnel, by Pacific Gas and Electric Company. Mono people have recently fished in this stream. The area has several archaeological sites of concern to Mono people, and it is known to provide habitat for many traditional plants (Theodoratus et al, 1985).
- The Black Rock Reservoir is part of a larger area associated with a mythical creature in bird form, which once rescued the Mono people from a disaster. The creature is said to have lived around Patterson Bluffs (downstream from Black Rock Reservoir, on the north side of the Kings River) Pictographs potentially associated with this event may be present in the area (Theodoratus et al, 1985).

- A late nineteenth century ceremonial site or “fandango grounds” was located near the confluence of Weir Creek and the North Fork of the Kings River, about two miles downstream from Black Rock Reservoir (Theodoratus et al, 1985).
- The Cold Springs Rancheria requested on-going consultation with the Pacific Gas and Electric Company regarding all development plans along the Kings River (Theodoratus et al, 1985).
- A Woponuch Village, Nimai’awe (meaning “All Colors”), was located where Balch Camp is now; the Cold Springs Rancheria requested that the Pacific Gas and Electric Company include Balch Camp in the Haas-Kings River mitigation program (Theodoratus et al, 1985).
- The Cold Springs Rancheria requested that they be formally involved in any plans which might affect traditional plants in the Pacific Gas and Electric Company Project area (Theodoratus et al, 1985).
- The Cold Springs Rancheria requested that Pacific Gas and Electric Company, or any other developer of hydroelectric facilities in their traditional territory, contribute to establishment of a tribal archive and library, and support the videotape recording of traditional Mono culture and lifeways (Theodoratus et al, 1985).

In the Relicensing Exhibit E discussion of their proposed management of potential cultural resource impacts, the Pacific Gas and Electric Company did not mention ethnographic resources (PG&E Co., 1984). In a later Exhibit E for License Amendment, the Pacific Gas and Electric Company noted that ethnographic recommendations “have been modified slightly to be more in keeping with the scope of the project. The specific extent of the final ethnographic management actions will be developed in consultation with the appropriate Native American community” (PG&E Co., 1986b). Pacific Gas and Electric Company and its consultants had conducted extensive consultation with the Holkoma Mono people (Cold Springs Rancheria), between October 1982 and October 1984, regarding proposed archaeological and ethnographic studies to be conducted in connection with relicensing (PG&E Co., 1985). Pacific Gas and Electric Company proposed several specific measures, later adopted by the Federal Energy Regulatory Commission and the Sierra National Forest (1986) (PG&E Co., 1986b).

The FERC and Sierra National Forest (1996) issued a Final Environmental Assessment for the license, stipulating that the Pacific Gas and Electric Company develop and implement a Cultural Resources Management Plan, to be formalized by a Programmatic Agreement. The FERC and SNF recommendations were that the CRMP include the following provisions:

- The Mono people would be informed of any archaeological research planned for the FERC licensed area;
- Any archaeological excavation or testing in the FERC licensed area would be monitored by a member(s) of the Mono community;
- When an archaeologist is required to monitor construction, Pacific Gas and Electric Company would also employ a Native American monitor;
- All artifacts retrieved during any data recovery on FS land would be placed in a depository approved by the FS; all artifacts retrieved from privately held lands during any data recovery, with permission of the

#### 4.7 Cultural Resources

property owner, would be placed in a depository approved by the California SHPO, and preferably within Fresno County;

- Burials encountered during any ground-disturbance activity would be treated in accordance with current laws (i.e., NAGPRA);
- Mono people would be given an opportunity to select a representative to serve as an advisory member of the Wildlife Management Team;
- Pacific Gas and Electric Company would make every effort to avoid disturbing known plant resources currently used by Mono people in traditional lifeways; and
- Pacific Gas and Electric Company acknowledges the desire of Mono people to use Native American plant resources in the vicinity of FERC licensed facilities, subject to U.S. Forest Service regulations (FERC and Sierra National Forest 1996).

Extensive consultation with Native Americans regarding potential impacts to traditional cultural properties and other ethnographic resources is well documented. The Cultural Resources Management Plan required for the Pacific Gas and Electric Company by FERC and the Sierra National Forest takes into account the identified Native American issues and concerns, and it provides for on-going consultation. In addition to the concerns documented above, Dunlap Mono people are very concerned about protection of cultural resources on the Keller Ranch property, associated with the Haas-Kings River license; known individuals are buried in the vicinity (Dunlap Mono Community, 2000).

#### ***Balch (FERC 0175)***

***Archaeological Resources.*** Table 4.7-23 summarizes known archaeological resources present within Project Lands associated with the Balch facility.

**Table 4.7-23: Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Balch Hydroelectric Project**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Black Rock Reservoir	35	2 (H)	unknown
Balch Powerhouses	100	2 (H)	unknown
Water Conveyance System	None	unknown	unknown
Undifferentiated FERC Licensed Areas	unknown	3 (P), 2 (H)	unknown
Watershed Lands (including Balch Camp)	100*	5 (P), 1 (P/H)	Y
<b>Total :</b>		<b>8 (P), 6 (H), 1(P/H)</b>	<b>Y</b>

Sources : PAR Environmental 1998z, PG&E Co, 1986c, PG&E Co, 1999 : Table 13-14.4.

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

Pacific Gas and Electric Company's consultant reported that 50 percent of FERC license boundaries have been surveyed for cultural resources (PAR 1988z). Pacific Gas and Electric Company itself stated that 35 percent of the Black Rock Reservoir has been surveyed (PG&E Co., 1999). The FERC licensed area for relicensing included Black Rock Reservoir, the Balch Diversion, and the Kellers Ranch area, but it did not include Balch Camp on the basis that the area (among others) "would receive little or no visitation or maintenance" and is "not proposed for improvements" (PG&E Co., 1986c). Balch Camp is, however, the operational headquarters for both Balch and the Haas-Kings. Since 1984, Pacific Gas and Electric Company had been preparing to replace a domestic water system and demolish two 1920s cottages within site CA-FRE-502 at Balch Camp, an action that not only could disturb the NRHP-eligible site but had the potential to further disturb human remains known to be present at the site (McCarthy and Blount 1986). Pacific Gas and Electric Company consultants made clear that Balch Camp was subject to impact from maintenance activities:

...the problems of operating the 'old camp' portion of the [Balch Camp] facility on so extensive and sensitive a cultural deposit seem almost overwhelming. Any subsurface activity, from maintenance of water lines or swimming pool to tree planting, may disturb cultural materials (McCarthy and Blount 1986).

Three prehistoric archaeological sites were identified within FERC License Areas, as defined. However, survey at Black Rock Reservoir apparently included only the recreational parking area to be developed, rather than the reservoir edges that are affected by inundation (PG&E Co., 1986c). Six historical sites were also identified, although only four of these are archaeological; the other two are hydroelectric structures still in use (PG&E Co., 1986c).

Evaluations of significance for archaeological properties conducted for this facility resulted in three prehistoric sites being recommended as eligible to the NRHP of Historic Places, according to the Pacific Gas and Electric Company (1986c). CA-FRE-502 had been determined NRHP eligible in 1984 as a result of nomination by the Sierra National Forest (PAR, 1998z). Additionally, all six prehistoric sites around Balch Camp had been determined NRHP-eligible (PG&E Co., 1986d). Pacific Gas and Electric Company's Exhibit E notes that one eligible site was damaged in the 1950s by residential activities at Balch Camp (PG&E Co., 1986c).

Pacific Gas and Electric Company found potential indirect effects to the eligible prehistoric sites within the defined FERC License Areas and proposed placement of barriers to protect the sites (PG&E Co., 1986c). Operational effects were not considered.

***Historical Resources.*** Historical structures were inventoried as part of the archaeological survey conducted for this facility. The inventory of historical structures excluded Balch Camp, and hence overlooked potentially significant structures there. The Balch Hydroelectric System was evaluated for NRHP eligibility (Shoup, 1986), and recommended as not eligible to the NRHP due to loss of integrity. Shoup recommended, however, that Balch Camp be given separate consideration (PG&E

Co., 1986c). This apparently did not take place, and the Pacific Gas and Electric Company was simultaneously proposing to demolish two 1920s cottages at Balch Camp (McCarthy and Blount, 1986). Pacific Gas and Electric Company's Exhibit E notes that Balch Camp "is considered to be historically significant" but, because it is outside of the FERC Licensed Area, it is given no further consideration (PG&E Co., 1986c). Deletion of Balch Camp from the FERC license area leaves those structures vulnerable to impact.

***Ethnographic Resources.*** A Woponuch Village, Nimai'awe (meaning "All Colors," and recorded as archaeological site CA-FRE-502), was located where Balch Camp is now. The site has been determined eligible to the National Register of Historic Places (PG&E Co., 1986c; PAR, 1998). The Cold Springs Rancheria requested that the Pacific Gas and Electric Company include Balch Camp in the Haas-Kings River mitigation program (Theodoratus et al, 1985), but Balch Camp was not included in the Haas-Kings River mitigation program, nor was it included in the APE for FERC 0175 (PG&E Co., 1986c). No primary ethnography was conducted for the Balch license (PG&E Co., 1986c). A study by McCarthy and Blount (1986), however, demonstrated Cold Springs Rancheria concerns about Balch Camp. Pacific Gas and Electric Company proposed a number of general measures to mitigate potential ethnographic effects (PG&E Co., 1986c).

During a field visit to Balch Camp, Pacific Gas and Electric Company personnel indicated that archaeological resources within the camp were protected by a Memorandum of Agreement with the Forest Service. This could refer to either, or both, of two documents. First, an MOA between the USDA Forest Service and the Pacific Gas and Electric Company regarding FERC 0175 (PG&E Co., and USDA Forest Service 1982) includes three general paragraphs referencing cultural resources but these do not mention specific resources. Second, there is a Memorandum of Understanding in regard to the Balch Camp Domestic Water Line Replacement and Cottage Removal Projects, involving Pacific Gas and Electric Company, Cold Springs Rancheria, and the Sierra National Forest (Cold Springs Mono Tribal Council 1984). This agreement pertained to artifacts and human remains that might be discovered in the process of the Water Line/Cottage Removal Projects, and it stipulated security measures, Native American monitoring, and reburial procedures. The Memorandum explicitly states that the "statements of policy and conditions ... are not applicable as presented here to other development projects." Neither Memorandum addresses on-going site-specific measures adequate to protect the outstanding rock art, and ethnographic sensitivity, of the archaeological site at Balch Camp. Cold Springs Rancheria remains interested in an on-going agreement for consultation on activities at Balch Camp (Cold Springs Rancheria, 2000). Sierra National Forest personnel report that ethnographic consultations have not been continued to the satisfaction of local Native Americans (Sierra National Forest, 2000b).

**Bundle 19: Tule River*****Tule River (FERC 1333)***

**Archaeological Resources.** Table 4.7-24 summarizes known archeological resources present within Project Lands associated with the Tule River facility.

**Table 4.7-24 Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands of the Tule River Hydroelectric Facility**

Project Feature	Percent Survey Coverage	Number of Known Resources	Any Sites Listed or Eligible for NRHP?
Tule River Powerhouse, Diversions and Water Conveyance System	100	7 (H)	Y
Watershed Land	0	unknown	unknown
<b>Total:</b>		<b>7</b>	<b>Y</b>

Source: PAR Environmental 1998a.

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

An archaeological overview and inventory of the facility was prepared by Weinberger (1985). The survey team included a member of the Tule River Reservation (PG&E Co., 1986e). Seven historical archaeological sites were recorded, five of which are associated with FERC Licensed Areas (PG&E Co., 1986e, PAR Environmental 1998aa). No management plan was prepared for the FERC License Areas because no significant historical properties are affected according to Pacific Gas and Electric Company (PG&E Co., 1986e). The archaeological inventory did not include Watershed Lands. There are only three acres of Watershed Lands in the Kings Crane-Helms region, associated with the Tule River facility (PG&E Co., 1999).

**Historical Resources.** The Tule River hydroelectric facilities have been recorded as archaeological site CA-TUL-1091H (Shoup, 1985, Van Buren and Shoup, 1985). The complex was determined eligible for inclusion on the NRHP on January 22, 1982, by the Keeper of the NRHP. Pacific Gas and Electric Company recommended a finding of no effect as a result of proposed maintenance and upkeep (PG&E Co., 1986e), and no management plan was prepared because no significant historical properties were affected (PG&E Co., 1986e). No inventory has been conducted on Watershed Lands.

**Ethnographic Resources.** The facility is located within the territory of the Yaudanchi Yokuts (PG&E Co., 1986e). An ethnographic overview, with meetings and interviews, was produced for the license (Weinberger, 1985 cited by PG&E Co, 1986e). Pacific Gas and Electric Company stated that “No archaeological or ethnographic sites were identified within the project vicinity by the Native American consultants” (PG&E Co., 1986e).

**Bundle 20: Kern Canyon**

***Kern Canyon (FERC 0178)***

**Archaeological Resources.** Table 4.7-25 summarizes known archeological resources present within Project Lands associated with the Kern Canyon facility.

**Table 4.7-25: Cultural Resource Sites Identified Within FERC Licensed Areas and Watershed Lands Associated with the Kern Canyon Hydroelectric Facility**

Feature	Percent Survey Coverage (Estimated)	Number of Known Sites	Features Listed or Eligible for NRHP?
Kern Canyon Powerhouse	0	0	unknown
Watershed Lands	10*	1 (P), 1 (H)	unknown
<b>Total:</b>		<b>1(P), 1(H)</b>	<b>unknown</b>

Source: PAR Environmental (1998bb).

\*= Average

P= Prehistoric

H = Historic

P/H = Prehistoric and Historic (multi-component)

There has been no systematic archaeological inventory conducted for FERC License Areas; two archaeological sites are known to be present on Watershed Lands. Only 10 percent of associated Watershed Land has been surveyed (PAR, 1998bb). No evaluations of NRHP eligibility for archaeological properties appear to have been conducted (PAR, 1988bb).

**Historical Resources.** No indication that an inventory or evaluation of historical structures appears to have been conducted for this project.

**Ethnographic Resources.** Pacific Gas and Electric Company has prepared no ethnographic study for the Kern Canyon facility (PG&E Co., 2000). One prehistoric archaeological site has been identified as a sacred site (PAR, 1998bb), but no consultation with Native Americans is indicated. A spokesman for the Kern Valley Indian Community indicated personal knowledge of a burial site and cache of baskets that was excavated in the late 1950s from the vicinity of FERC 0178 (Wermuth 2000).

***Auberry Service Center***

**Archaeological Resources.** Pacific Gas and Electric Company contracted for an Environmental Site Assessment of the Auberry Service Center in 1998; the facility was constructed in 1986. This environmental assessment was directed solely toward hazardous materials, and did not address cultural resources of any sort (ERM, 1998). Available information indicates that no archaeological inventory was conducted for this facility.

**Historical Resources.** Available information indicates that no historical resources inventory was conducted for this facility.

*Ethnography.* Available information indicates that no ethnographic resources inventory or consultation with local Native Americans was conducted for this facility.

#### **4.7.5 STANDARDS OF SIGNIFICANCE**

##### **4.7.5.1 Historical and Archaeological Resources**

For the purposes of this analysis, potentially significant impacts to historical resources are defined as effects that would, either directly or indirectly:

1. Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources;
2. Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that account for its inclusion in a local register of historical resources pursuant to local ordinance or resolution (PRC Section 5020.1[k]), or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g); or
3. Demolish or materially alter in an adverse manner those physical characteristic of a resource that convey its historical significance and that justify its eligibility for its inclusion on the California Register, as determined by the lead agency.

CEQA also applies to archaeological sites. If an archaeological site has been determined to be a historical resource, as defined by Section 15064.5(a) of the State CEQA Guidelines, or a unique archaeological resource as defined, the foregoing thresholds apply as stated in Section 15064.5(c)(4). If an archeological resource is determined to be neither a historic resource nor a unique archeological resource, impacts to the resource shall not be considered significant.

The fact that a resource is not listed or determined to be eligible for listing in the California Register or a local register does not preclude a Lead Agency's finding that a resource is a historical resource for the purposes of determining the significance of the impact associated with its modification, as stated in Section 15064.5(a)(4) of the State CEQA Guidelines.

##### **4.7.5.2 Native American Ethnic and Cultural Values**

Impacts to Native American ethnic and cultural values must also be considered, since some of the FERC Licensed Areas and Watershed Lands hold historical, cultural, or religious significance for some Native American groups. The proposed project would, therefore, result in a significant impact if its implementation would result in the disruption or modification of, or constrain or prevent access to, a site or area of cultural significance to a Native American group.

#### **4.7.6 ANALYTICAL METHODS**

##### **4.7.6.1 Definitions of Cultural Resources**

For the purposes of this analysis, the term "cultural resources" generally encompasses three broad categories: archaeological resources, historical resources, and Native American ethnic and cultural

values and concerns. *Archaeological resources* are byproducts of past human presence, either prehistoric or historical, including human remains, that are generally defined by their occurrence at or beneath the ground surface, with some exceptions, such as petroglyphs or other features occurring on exposed rocks. *Historical resources* generally refer to structures or their above-ground remains, but they are also defined by their age; that is, historical generally refers to events and features associated with the post-Euroamerican contact period with Native Americans. However, a site may be both historical and archaeological, particularly if the materials within the site indicate multiple time periods. The subject of *Native American ethnic and cultural values and concerns* covers a broad range of resources. Sacred and traditional lands are the most prominent of these: contemporary Native Americans continue to use certain areas for ceremonial or other traditional activities, for subsistence, or for gathering materials for baskets or other crafts. These areas may correspond to archaeological and/or historical sites, such as rock art or petroglyph sites, or traditional funerary areas, and are rarely marked. Further, many Native Americans are reluctant, for reasons of culture or privacy, to discuss the locations of the areas or the nature of the activities conducted there, so specific geographic data often cannot be provided.

### 4.7.6.2 Cultural Resources and CEQA

Under CEQA, impacts must be considered when a proposed project has the potential to affect cultural resources, such as those described above. CEQA associates a “substantial adverse change” in the significance of an historical resource with a significant impact on the environment. Section 5020.1 of the Public Resources Code defines the term “substantial adverse change” as demolition, destruction, relocation, or alteration of a historical resource or its immediate surroundings such that a resource’s value would be materially impaired. Determining whether a resource is historical under the CEQA Guidelines is described further below.

The lead agency must, therefore, resolve two questions: Is there a historical resource that may be affected by the proposed project, and will the project result in a substantial adverse change to the extent that the resource’s historical value would be materially impaired or lost? Once the lead agency has made a determination of whether a resource is historical, and determined that a substantial adverse change will occur to the resource, then the analysis must also address ways to reduce the adverse affect on the resource.

### 4.7.6.3 Determination of a Historical Resource Under CEQA

The criteria for eligibility for the NRHP have been employed as a model for the California Register of Historical Resources, as well as many local preservation ordinances, and provide the highest standard for evaluating the significance of historical—and other cultural—resources (note that the term “significance” in this context refers to *historical* significance, rather than impact significance). The 1999 revisions to the CEQA Guidelines adopted the California Register criteria (and by extension, the NRHP criteria) for environmental review in California by incorporating them into Section 15064.5(a)(3) of the Guidelines, and Sections 15064.5(a)(1-2) of the CEQA Guidelines

provide additional criteria. Therefore, as defined in Section 15064.5(a) of the CEQA Guidelines, the term “historical resources” includes the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:
  - (A) Is associated with events that have made a significant contribution to the broad patterns of history; or
  - (B) Is associated with the lives of persons significant in the past; or
  - (C) Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
  - (D) Has yielded, or may be likely to yield, information important in prehistory or history.

Additionally, a resource may still be considered historical at a local or State level if it does not meet these standards: Section 21084.1 of CEQA specifically states that a resource need not be listed on any register to be historical. Further, Section 15064.5(a)(4) of the CEQA Guidelines states that “until such time as a structure is evaluated for possible inclusion in the inventory pursuant to subdivisions (b) and (c) of PRC, Section 5024.5 [historical significance criteria], State agencies shall assure that any structure which might qualify for listing is not inadvertently transferred or unnecessarily altered.”

Archaeological sites may, in addition to being a historical resources, be determined eligible for or listed on the National Register, either individually or as part of a district. Such resources are considered either historical resources under Section 15064.5(a)(3)(A-D) of the CEQA Guidelines or, in some cases, unique archaeological resources under Section 21083.2(g) of CEQA.

However, for the majority of archaeological and historic archaeological sites present or likely to occur in Project lands, no determination regarding historical value or uniqueness has been made. Therefore, to provide a conservative analysis, any prehistoric or historic archaeological site is considered likely to yield information important in prehistory or history under Section 15064.5(a)(3)(D) of the CEQA Guidelines, and is therefore considered to be a potentially historical resource, unless specifically determined otherwise by a professional study. Further, the presence of

archaeological sites may indicate a level of “sensitivity” of an area, or its likelihood to contain additional resources that have not yet been identified. This is true of areas that have been only partially surveyed: many areas within FERC Licensed Areas and Watershed Lands have not been subject to systematic survey. Lands that have not been surveyed are, for the purposes of this analysis, considered likely to contain unidentified archaeological resources.

Structures are considered to be historical resources for the purposes of this analysis if they are older than 45 years. Fifty years is considered the standard threshold age for potential historicity, barring additional considerations, such as duration of the project or known significance of a structure by an association of the kind described in the criteria in Section 15064.5(a)(3)(A–D) of the CEQA Guidelines, shown above. However, development may not occur immediately (Chapter 3, Approach to Environmental Analysis), so a five-year “buffer” has been used as an additional conservative assumption.

The majority of the potentially historical structures identified in the project Lands are active or derelict hydroelectric facilities and attendant structures, and are associated with the origins and development of the hydroelectric industry in California, and may therefore be significant under criteria A, B, and C, above, and are assumed to be so, unless specifically determined otherwise by a professional study. Additionally, all historic archaeological sites, unless specifically determined otherwise by credible study, are considered to be potentially historical resources for the purposes of this analysis.

Native American ethnic and cultural values, as described above, encompass a range of features. Many prehistoric archaeological sites have added significance due to their heritage value, or ancestral connections, with contemporary California Indian people. The primary issue to be separately analyzed here, however, is access to or destruction of lands with cultural, historical, or traditional significance to Native Americans. Since a general identification of an area (usually specifying the FERC and/or watershed lands of a particular project) is feasible, areas identified must be considered sensitive for the purposes of the analysis.

#### **4.7.6.4 Native American Concerns**

A particular effort to address Native American concerns informs this analysis. A Sacred Lands File Check was completed by the NAHC for this project to determine the presence of known sacred sites within Project Lands. Additionally, a presentation regarding the project was made to the NAHC by the CPUC’s EIR team. A Native American consultation effort was also conducted separately from the CEQA scoping process to contact local Native American groups for further information regarding sites and values of traditional or historical significance that may be affected by the project. Over 100 Native American representatives, who were identified to the CPUC EIR team by the NAHC, were contacted during this process.

The emphasis of this effort was to assist the CPUC EIR team in identifying *physical* effects upon resources, or access to resources, of significance to Native Americans, and many respondents provided information regarding known ceremonial sites, village sites, gathering areas for basketry or other craft or ceremonial materials, traditional fishing spots, access routes, and archaeological sites. Other Native Americans simply expressed concerns regarding a broad range of resources over larger areas, or access to these areas, such as project bundles or even regional bundles, but did not provide specific sites. Where specific information was not provided, areas that were described by Native Americans as significant to them are considered for the purposes of this analysis to contain cultural resources, and access to these areas is considered important. For the purpose of this analysis, access by Native Americans to sites of concern to them is assumed to exist under existing conditions, since activities such as ceremonies and gatherings are said to occur. Natural resources issues were also raised, since many plant and animal species have special significance for some Native American groups. Questions regarding the project's effects on forests, fisheries, water quality, and terrestrial biology were submitted, and are addressed in this section only to the extent that they may occur in an area that may be subject to substantial physical modification by the project, or to which access to these resources by Native Americans may be constrained. Other sections of this EIR address direct effects of the project upon the resources themselves.

Some Native American groups also raised concerns regarding NAGPRA and the potential responsibilities of Pacific Gas and Electric Company under the law with respect to Native American remains and associated grave goods (remains). The CPUC EIR team, after an analysis of the issues involved, concluded that the project would not alter any rights or responsibilities of any party under NAGPRA with respect to the remains removed by archaeologists under contract to Pacific Gas and Electric Company, and in the possession and control of California State University, Chico (Chico). If Pacific Gas and Electric Company has relinquished all possession and control of these remains to Chico (PG&E Co., 2000) therefore, Chico would be considered a "museum" under NAGPRA, and would be obligated to inventory and repatriate the remains. In the event that any remains were found on federal lands used by Pacific Gas and Electric Company in connection with hydroelectric facilities after November 16, 1990 (the effective date of NAGPRA), then NAGPRA would apply to such remains and Pacific Gas and Electric Company would be obligated to repatriate such remains whether or not the hydroelectric assets were sold. The project would not alter any rights and responsibilities associated with NAGPRA; therefore, no impact would occur, and this issue will not be discussed further.

Other issues were raised during the consultation process that are not within the scope of an EIR under CEQA. These issues included the public status of some lands, whether legal or implied by use. Some respondents questioned Pacific Gas and Electric Company's ownership of the land, and the right to sell this land, and expressed concern that such lands were obtained through displacement of Native American inhabitants, and consequently, that compensation in some form (e.g., land, facilities, money) must be provided to Native American groups as a means for ameliorating past injustices. As previously stated, this EIR is intended to address the potential

physical effects of the project, such as damage, destruction or constraints upon access to resources of significance to Native Americans. Legal issues, such as land ownership, must necessarily be resolved in a different forum.

### **4.7.6.5 Assumptions Regarding the Scenarios Under Analysis**

It is unlikely that significant effects to cultural resources would occur solely as a result of the change proposed in ownership of the hydroelectric facilities and lands because Pacific Gas and Electric Company proposes, as part of the project, to transfer to the new owner(s) information regarding cultural resources, and to transfer appropriate resources management plans and best management practices, which would increase awareness of such resources. Thus, the new owners should have available to them the same data concerning cultural resources that Pacific Gas and Electric Company currently has in its possession. The changes that could occur on Project Lands would most likely take the form of development or resources extraction (minerals, timber), and are evaluated as appropriate, by type of impact, in Sections 4.7.8 to 4.7.10 below.

### **Changes in Operation of Hydroelectric Facilities**

Future project operations that emphasize peaking power revenue or water supply could have different water release and ramping rates than current conditions (Chapter 3, Approach to Environmental Analysis). This could lead to increased fluctuation of reservoir water levels, and to earlier draw-down of reservoirs and/or lower reservoir levels for periods of time, compared to the baseline conditions.

Those bundles that are unlikely to see significant changes in operations under any ownership regime have little storage capacity, operate largely as run-of-river, or have institutional constraints that will continue to limit operations under any scenario. After preliminary study, other bundles were identified as unlikely to experience significant operational changes or would experience changes that are generally similar to existing conditions. For example, small forebays are subject (under baseline conditions) to extreme hourly or daily fluctuation that could severely erode any existing shoreline. Under either or both of the project scenarios, fluctuation may occur during different periods, but the net physical effect would remain the same. Those facilities that are unlikely to experience significant changes in operations or that would have effects similar to baseline conditions, under any ownership regime, require no further analysis. Consequently, only the reservoirs that were modeled, which have the potential for substantive water related effects from different management strategies, are evaluated.

### ***Effects of the Changes on Cultural Resources***

The effects that are anticipated to result from maximized power generation revenue include the possible termination of non-binding agreements and practices. These may include informal agreements that may affect cultural resources or Native American access to resources. Other practices that may affect cultural resources include more rapid ramping rates, which could cause

increased fluctuation in reservoir water levels, and accelerated shoreline erosion effects upon cultural resources near or within reservoirs. Some of the effects that could occur under the two project scenarios already occur in the baseline conditions: this analysis is concerned with the potential for more extreme occurrences of these effects, and the resultant exacerbation of impacts.

Under operating practices designed to maximize water supply delivery and reliability, sustained higher water levels within reservoirs during normal and wet years (with respect to rainfall) may inundate resources. More extreme or prolonged draw-down could expose cultural resources in the reservoirs for longer periods than under baseline conditions, which could increase the risk of vandalism, looting or inadvertent damage from human activity. As well, increased exposure to the elements could cause more rapid erosion rates, which could adversely affect cultural resources. For this analysis, “lower” and “higher” reservoir water levels compared to baseline conditions are determined by whether water levels within a reservoir were anticipated to change where modeling was performed, because any additional exposure or inundation compared to the baseline condition could potentially affect known cultural resources, or could expose unidentified resources, and in subjecting these resources to an increased risk of damage, could result in a significant impact.

### **Land Use Intensification**

For the purpose of this analysis, any development could directly affect cultural resources known or anticipated to be present in an area. Additionally, indirect effects of this development (such as attendant increases in seasonal and permanent populations) upon unidentified resources, resources in nearby areas, sites of significance to Native Americans (which are not widely disclosed).

In addition to the possibility of destruction of sites of significance to Native Americans, the configuration of development, such as a large gated community, or a fenced or gated estate lot, could by its presence prevent access to intact sites on or adjacent to the property, and security or privacy concerns could result in the prevention of access to sites on or near the property.

### **Timber Harvesting**

All owners of private timberland in California are required to have an approved THP before harvesting commercial species. Timber harvesting plans and their associated agency and public review is considered a functional equivalent of CEQA. The California Department of Forestry and Fire Protection (CDF) is responsible for approving a THP, and agency review generally also includes the California Department of Mines and Geology. THPs are required to include an archaeological assessment, which involves a survey of the area to be harvested, as well as records searches and consultation with local Native American groups. The archaeological assessment also includes measures for avoiding or mitigating impacts to resources identified within a timber harvesting area, as well as for unanticipated finds, and is subject to review and approval by the CDF Archaeologist. The CDF Forest Practice Inspector periodically inspects operations on a THP site to ensure compliance with THP provisions.

Therefore, impacts to cultural resources within harvest areas under active THPs are not considered an effect associated with the project, since such impacts would be part of the existing conditions, and since the existing THP must be assumed to include the archaeological assessment described above. Similarly, intensification of timber harvesting in an area covered by an existing THP would not necessarily result in an increased potential for impacts to these resources, since the resources within a particular harvest zone will have already been identified, and the measures proposed to avoid or reduce impacts to these resources would still be practiced.

Although THPs address cultural resources within areas to be harvested, the potential for an impact on cultural resources as a result of new or expanded harvesting still exists since the ground-disturbing activities associated with timber harvesting, (tree-felling, hauling, dragging, etc.) could adversely affect cultural resources that may be present within the harvest area in which a THP had not been approved at the time of issuance of the NOP for this project. Also, re-entry into a closed or inactive plan, *if not anticipated to occur without the project*, would be considered an effect of the project, since the existing condition in this case includes no harvest activity in that particular area, and re-entry is effectively an expansion of the harvesting area.

In addition to the potential for destruction of cultural resources, timber harvesting could represent a barrier to Native American access to sites of significance to them. Timber harvesting operations are potentially hazardous locations, due to the nature of the activity and the amount of heavy equipment that can be concentrated into an active harvest area. Consequently, for reasons of safety, as well as concerns regarding the security of such equipment, access to these areas could be constrained, which could prevent Native American access to sites within or near harvest areas.

No expansion of harvest areas and no new THPs are anticipated to occur in the following bundles, and are not further analyzed:

- Bundle 1 (Hat Creek)
- Bundle 9 (North Yuba River)
- Bundle 12 (Chili Bar)
- Bundle 15 (Merced River)
- Bundle 17 (Kerckhoff)
- Bundle 19 (Tule River)
- Bundle 20 (Kern Canyon)

***Mineral Extraction.*** Mineral extraction involves ground disturbance, and therefore could affect any cultural resources present or potentially present in the area of operations. Additionally, mining operations would increase the number of people (typically workers) in a given area, which could increase the risk of inadvertent or deliberate destruction of resources through accident, vandalism, or collection. Additionally, similar to timber harvestry, safety and security concerns regarding the mining sites and facilities could preclude or constrain Native Americans' access to sites of significance to them. Therefore, mineral extraction, wherever it may occur, is assumed to adversely affect known and unidentified cultural resources in the anticipated area of operations.

However, as stated in Chapter 3, Approach to Environmental Analysis, mineral extraction operations are constrained by a variety of factors that limit probable operations to Bundles 1 (Hat Creek) and 2 (Pit River) in the Shasta Regional Bundle, and Bundle 14 (Stanislaus River) of the Motherlode Regional Bundle. Therefore, no other areas are considered for impacts related to mineral extraction.

#### **4.7.7 INTRODUCTION TO IMPACTS AND MITIGATION MEASURES**

For Cultural Resources, the following impacts have been identified:

- Impact 7-1: The project could result in the damage or destruction of known and/or unknown cultural resources (Significant).
- Impact 7-2: The project could result in constraints on Native American access to culturally or historically significant lands or landforms (Significant).
- Impact 7-3: Changes in hydroelectric operations and reservoir management could result in damage or destruction of cultural resources (Significant).

Where impacts are significant, mitigation measures are recommended at the conclusion of the analysis of each impact.

#### **4.7.8 IMPACT 7-1: IMPACT, ANALYSIS, AND MITIGATION MEASURES**

**Impact 7-1: The project could result in the damage or destruction of known and/or unknown cultural resources (Significant).**

##### **4.7.8.1 Impact 7-1: Shasta Regional Bundle**

Lake Britton, which is part of the Pit 3, 4, 5 project (FERC 2106) in Bundle 2 (Pit River), is considered a sensitive area that could be affected by the assumed development potential described in Chapter 3, Approach to Environmental Analysis. Approximately 90 percent of the FERC License Area that includes Lake Britton has been surveyed, and the area is rich with archaeological resources. As stated in Section 4.7.4, 34 archaeological and historical sites are associated with the lake, including the Lake Britton Archaeological District, which is listed on the NRHP, and contains 27 of these sites. A CRMP has been prepared by Pacific Gas and Electric Company for the Pit 3, 4, 5 project; however, the CRMP affects FERC License Areas only, and the Watershed Lands associated with this project contain 50 known prehistoric archaeological sites, ten multiple component sites, and four historical or historic archaeological sites, which may be directly affected by development, and which may promote additional use of Lake Britton, and in doing so, increase the risk of damage to the resources there, as a result of inadvertent or deliberate action by residents or visitors. The possibility also exists of additional, unidentified resources: approximately 50 percent of the Watershed Lands associated with Pit 3, 4, 5 have previously been surveyed.

In addition to the Pit 3, 4, 5 project, Watershed Lands associated with the Pit 1 (FERC 2687, within Bundle 2), Hat Creek (Bundle 1), and Battle Creek (Bundle 4) facilities could be affected by

the assumed development potential. In addition to the 32 known cultural resources sites within Pit 1 Watershed Lands, the entire project facility is listed on the NRHP. The Watershed Lands of the Hat Creek and Battle Creek bundles contain 64 and 23 known cultural resources sites, respectively. While the majority of the Hat Creek Watershed Lands have been surveyed, less than 20 percent of Battle Creek's Watershed Lands have been surveyed. Therefore, additional, unidentified resources are likely present in all of these project bundles, and may be affected by development activities.

Watershed Lands associated with other facilities within the Pit River Bundle also contain numerous cultural resources. McCloud-Pit (FERC 2106) has the most land of any facility within the Shasta Regional Bundle, and its Watershed Lands contain some 81 sites, in addition to the 21 sites in FERC Licensed Areas. The assumed development potential for the lands associated with this project could affect these resources. Also, approximately 62 percent of the McCloud-Pit's Watershed Lands have been surveyed, and they may reasonably be assumed to contain additional, unidentified sites.

Additionally the Ajumawi, Ilmawi, Madesiwi, Itsatawi and Atsugewi Bands are all concerned with protection of archaeological sites in the Pit River Drainage, especially those with human remains. The Pit River Tribe and its constituent Bands have been deeply involved in consultation with Pacific Gas and Electric Company to protect sites from a variety of threats, including vandalism and cattle grazing.

Bundle 3 (Kilarc-Cow Creek) lands contain the NRHP-listed Cow Creek Petroglyphs, in addition to 14 other cultural resources sites within its Watershed Lands. Less than half of the Watershed Lands have been surveyed. Given the low survey coverage, and the significance of some of the known resources in the bundle, this area must be considered sensitive for cultural resources, which could be affected by the assumed development potential.

All of the Shasta Regional Bundle is sensitive for Native American sites and resources. The Pit River Tribe has expressed concern for ancestral lands throughout this region, as well as for the return of human remains excavated from these areas. As stated in Existing Settings, several religious sites are known on the margins of Lake Britton, and Pacific Gas and Electric Company has indicated its awareness of the visits by Pit River Tribe members. The Pit River Tribe has also described village sites, traditional cultural properties, and archaeological sites that represent thousands of years of occupation, and which are of significance to the tribe, in other lands of the Pit 3, 4, 5 facility, as well as Indian Trust Allotment Lands and other sites within most areas of McCloud-Pit. The Pit River Tribe has also expressed concern regarding traditional cultural properties in lands associated with Bundles 3 and 4, and with most features of Hat Creek in Bundle 1, notably Hat Creek itself, the Hat 1 and 2 powerhouses, and Baum Lake/Crystal areas.

In addition to the potential future development of 3,036 EDUs in all bundles within this regional bundle, new timber harvest entries could also occur in all bundles, and new mineral extraction

(mining) efforts could begin within the Watershed Lands of Bundles 1 and 2, along the Pit River. These activities could all affect cultural resources in these areas, since all involve ground disturbance, and increase the number of people in an area, even temporarily.

Based on the above discussion, future development resulting from or enabled by the project or new or expanded timber harvesting and mineral extraction activities could directly affect cultural resources within the FERC Licensed Areas and Watershed Lands associated with the Shasta Regional Bundle, due to the ground-disturbance inherent in these activities. Additionally, increasing the numbers of people within sensitive areas, whether residents of new housing units or employees of new or increased-scale economic ventures, could increase the potential for damage from human activity, whether inadvertent or deliberate, to both known and unidentified cultural resources. This is particularly true of resources proximate to facilities such as reservoirs that provide recreational uses, but there are potential spill-over effects as well. More people around Lake Britton could, for instance, cause indirect effects on resources associated with the Lake Britton Archaeological District in the Pit 3, 4, 5 facility in Bundle 2. Therefore, the potential for damage to or destruction of cultural resources within the Shasta Regional Bundle, due to new development, or increases in timber harvesting or mineral extraction, constitutes a *significant impact*.

#### **4.7.8.2 Impact 7-1: DeSabra Regional Bundle**

A total of approximately 18,039 acres of Watershed Lands are proposed for transfer to a new owner(s) in the DeSabra Regional Bundle. The potential is considerable for future development of the DeSabra Regional Bundle in several redesignated land areas (Chapter 3, Approach to Environmental Analysis), with an overall anticipated intensity of 2,099 EDUs. The potential future development is significant for all bundles. Also, timber management could also increase on Project Lands in this regional bundle, especially new THPs in the North Fork Feather River (NFFR) basin on the Humbug Valley, Butt Valley Reservoir, Bucks Creek/Bucks Lakes, and Poe land areas. An increase in development and timber harvesting on Project Land Areas where cultural resources sites exist could result in the potential for impacts to those resources.

The Upper North Fork Feather River FERC Licensed Areas and associated Watershed Land also contain a high number of archaeological sites, including 73 prehistoric, 24 historic, and two multi-component sites. Also of particular concern are Watershed Lands associated with the Coal Canyon Powerhouse, which are adjacent to Lake Oroville, near the town of Oroville. While most of these Watershed Lands have not been surveyed, surveys that have been conducted have produced a number of prehistoric and historic sites. Watershed Lands associated with the other hydroelectric projects in the DeSabra Regional Bundle do not contain as many known cultural sites, but in many cases neither FERC Licensed Areas nor Watershed Lands have been extensively surveyed. Potential development, and the ground-disturbing activities associated with construction, could result in damage to cultural resources.

Additionally, development can attract a larger number of people to an area, which increases the likelihood of inadvertent or deliberate damage by people to cultural resources, particularly those that are visible, such as historic structures or surface archaeological deposits, but also to sites of Native American cultural or traditional significance, which generally exhibit no visible indicators.

In addition to potential future development, all bundles within the DeSabra Regional Bundle could experience some level of new timber harvest or re-entry into a currently inactive or closed plan. New or amended THPs are expected in the Southeast Lake Almanor, Humbug Valley, Butt Valley Reservoir, Bucks Lake, Poe, and DeSabra-Centerville lands. As described above, the Upper North Fork Feather River bundle contains known cultural sites, and although comprehensive surveys have not been completed, the presence of additional, unidentified resources may reasonably be assumed. Watershed Lands associated with the other bundles in the DeSabra Regional Bundle do not contain as many known cultural sites, but in many cases neither FERC License Areas nor Watershed Lands have been extensively surveyed.

Based on the above discussion, development resulting from divestiture and new timber harvesting or mineral extraction activities could directly affect cultural resources within the Watershed Lands associated with the DeSabra Regional Bundle, due to ground-disturbance inherent in these activities. Additionally, development could increase the number of people in a sensitive area, which could result in indirect adverse effects to resources that are known or may be present within sensitive areas, due to inadvertent or deliberate damage by human activity, particularly resources proximate to facilities such as reservoirs that provide recreational uses. This would constitute a *significant impact*.

#### **4.7.8.3 Impact 7-1: Drum Regional Bundle**

The assumed development potential of this regional bundle is 4,071 EDUs, with 3,863 of these units in Bundle 11. As described above in the Existing Settings sections for Bundles 9 to 12 in the Drum Regional Bundle, several significant resources exist within these lands. The Project lands associated with Bundle 11 (South Yuba River), which include the NRHP-eligible Drum-Spaulding facility (FERC 2310), are probably the most sensitive areas of the regional bundle. Of the 160 known cultural resources sites within the FERC Licensed Areas and Watershed Lands, 113 are located in Watershed Lands. The more notable resources among these sites are two groups of intact rock art sites located in the vicinities of Bear Valley and Spaulding Ridge: the Tahoe National Forest has attempted to record easements to protect these sites, as stated above in Existing Settings. Further, about half of the Watershed Land parcels have not been surveyed. Given the number of known sites it is highly likely that other unidentified resources could be present.

In addition to archaeological and historic sites, resources of significance to Native Americans are also present within the lands associated with Bundle 11. The lands are located within the traditional territory of the Nisenan (Southern Maidu), and Washoe people have traveled through the area.

Both tribes have expressed to the U.S. Forest Service their interest in the lands associated with the Drum-Spaulding project.

The Watershed Lands associated with the Potter Valley (FERC 0077) facility also contain known cultural resources that may be affected by future development. Potter Valley Watershed Lands, of which about half have been surveyed, contain 16 known archaeological and historical sites that could potentially be affected by development. Additionally, the FERC licensed area associated with Van Arsdale Reservoir and with Lake Pillsbury contain nine and seven known cultural resources sites, respectively. While immediate development within FERC Licensed Areas is unlikely (Chapter 3, Approach to Environmental Analysis), future development in Watershed Lands adjacent to these facilities could draw additional people to these areas, which could increase the risk of inadvertent damage or vandalism to cultural resources on the margins of, or within, these facilities. Sites of significance to Native Americans, particularly the Wiyot Tribe, are also known within the lands of this facility.

Bundle 9, North Yuba River, is the least archaeologically sensitive project bundle within this regional bundle. The majority of the project's FERC Licensed Areas and Watershed Lands have been surveyed (80 and 100 percent, respectively), and only one historical resource (the Narrows powerhouse) has been identified within the FERC Licensed Areas, and has been determined ineligible for the NRHP. Similar to Bundle 9, no cultural resources have been recorded within the FERC Licensed Areas and Watershed Lands in Bundle 12 (Chili Bar). However, the majority of Chili Bar Watershed Lands have not been surveyed, and must, therefore, be considered potentially sensitive. Additionally, as stated in Existing Settings, the lands associated with both of these facilities lie within the traditional lands of the Nisenan (Southern Maidu), and while no specific sites have been identified, the Maidu have indicated that sites within the Project Lands are of concern to them.

Based on the above discussion, future development resulting from the project, including construction, and new or expanded timber harvesting, could directly affect cultural resources within the Project Lands of the Drum Regional Bundle, due to the ground-disturbance inherent in these activities. Additionally, these activities could increase the number of people in a sensitive area, permanently or temporarily, which could cause indirect adverse effects to resources that are known or may be present, due to inadvertent damage or vandalism, particularly to resources proximate to facilities such as reservoirs that provide recreational uses. This would constitute a *significant impact*.

#### **4.7.8.4 Impact 7-1: Motherlode Regional Bundle**

The assumed development potential for the Motherlode Regional Bundle (Chapter 3, Approach to Environmental Analysis) is 318 EDUs within Project lands.

As stated above in Regional Settings for Bundles 13, 14, and 15 in the Motherlode Regional Bundle, several cultural resources are known within these lands. Arguably the most notable of these is the Mokelumne River Canyon Archaeological District, an NRHP District located in Bundle 13 (Mokelumne River). The components of this district lie primarily within the FERC licensed area of the Salt Springs Reservoir and transmission lines, although a portion of the district is believed to lie within the Watershed Lands as well. The district includes 92 prehistoric archaeological sites of the more than 150 sites designated as an Area of Special Concern in the Stanislaus National Forest. Many of the sites are pristine, and the District includes the only known rock art sites in the Stanislaus and Eldorado National Forests. Further, the Eldorado National Forest Archaeologist could choose to nominate additional archaeological sites. Given the proximity of the Watershed Lands near Salt Springs Reservoir to this resource-rich area, those lands could be considered highly sensitive. Additionally, the Watershed Lands of the Mokelumne River Project contain 35 other known archaeological and historical sites, and the presence of additional, unidentified resources may reasonably be assumed.

In addition to archaeological and historical sites, sites of traditional or historical significance to Native Americans may also be present. The Calaveras and Jackson-Ione Miwok groups have identified 50 significant resources of various types within Bundle 13, some of which may occur within Watershed Lands.

The Watershed Lands associated with the Spring Gap-Stanislaus and Phoenix facilities (Bundle 14) also contain cultural resources that may be affected by future development. Spring Gap-Stanislaus Watershed Lands contain eight known prehistoric and seven known historical sites. Additionally, two historical sites located within FERC licensed area near Relief Reservoir, and the Spring Gap Powerhouse, have been identified as eligible for the NRHP. While these sites would not likely be directly affected by future development, the Watershed Lands near these features could be considered sensitive, and the additional people brought into the area by development could subject the sites to damage. The only Spring Gap-Stanislaus facility near which cultural resources were not identified was Stanislaus Afterbay. Watershed Lands in the vicinity of any other Spring Gap-Stanislaus facilities could be considered sensitive.

Additionally, cultural resources were identified in FERC Licensed Areas associated with most of the Phoenix facilities, as well as in the Watershed Lands. The Watershed Lands near Lyons and Phoenix Reservoirs could be developed, and NRHP-eligible sites were identified in FERC Licensed Areas near both of these project features. Further, the prehistoric component of a multiple component site within FERC Licensed Areas of Lyons Reservoir is considered one of the more important sites in Tuolumne County, as stated above in Existing Settings. The Watershed Lands near these two reservoirs could therefore be considered sensitive, although the Revised CRMP for Phoenix (FERC 1061) mitigated operational impacts to these resources, and established a monitoring program to reduce looting and vandalism of both prehistoric and historical sites. Additionally, a site of significance to Native Americans was identified on the FERC licensed area

of Lyons Reservoir. The presence of other specific sites within the Watershed Lands of Phoenix Spring Gap-Stanislaus remains unknown. However, while consultation regarding the FERC Licensed Areas of the Phoenix project has been undertaken, very little consultation with Native American groups regarding any lands of the Spring Gap-Stanislaus facility has occurred. According to the Archaeologist for the Stanislaus National Forest, one gathering site within Watershed Lands owned by Pacific Gas and Electric Company is suspected, and the Tuolumne Bank of Me-wuk Indians has expressed concern regarding sacred and ceremonial sites in the lands associated with the Spring Gap-Stanislaus facility. These lands could, therefore, be considered sensitive.

The FERC Licensed Areas and Watershed Lands associated with Bundle 15 (Merced River) have no identified cultural resources sites associated with them. However, as stated above in Existing Settings, only 15 percent of the FERC licensed area has been previously surveyed, and none of the Watershed Lands have been surveyed. An 1853-1869 General Land Office plat refers to several possible historical features in the vicinity of the project, which may indicate the presence of unidentified resources.

In addition to the potential development assumed within Project lands, new or expanded timber harvesting activities could also occur in lands within Bundles 13 and 14, and new mineral extraction (mining) efforts could occur within the Watershed Lands of Spring Gap-Stanislaus in Bundle 14.

Based on the above discussion, future development resulting from or enabled by divestiture, as well as the expansion of timber harvesting or mineral extraction activities, could directly affect cultural resources within the Project Lands in the Motherlode Regional Bundle, due to the ground-disturbance inherent in these activities. Additionally, these activities could increase the number of people in a sensitive area, permanently or temporarily, which could cause indirect adverse effects to resources that are known or may be present, due to inadvertent damage or vandalism, particularly to resources proximate to facilities such as reservoirs, which could provide recreational uses and an additional attraction. This could result in a *significant impact*.

#### **4.7.8.5 Impact 7-1: Kings Crane-Helms Regional Bundle**

As stated in Local Settings for Bundles 16, 17, 18, 19, and 20 in the Kings Crane-Helms Regional Bundle, cultural resources are known to exist within Project lands. Arguably the most significant of the known and evaluated resources within this regional bundle include the Crane Valley Archaeological District in Bundle 16 (Crane Valley), six NRHP-eligible sites at Balch Camp in Bundle 18 (Kings River), a number of sites associated with the Squaw Leap Archaeological District in and around Bundle 17 (Kerckhoff), and the NRHP-eligible Tule River facilities in Bundle 19 (Tule River).

The components of the Crane Valley Archaeological District lie primarily around Bass Lake, but properties along the North Fork Willow Creek and near Manzanita Lake are also included. A total

of 51 archaeological sites are within the district, and 21 of those are within the Crane Valley FERC licensed area. However, because the survey omitted several facilities, additional, unidentified sites are likely to exist within the FERC licensed area (e.g., along the water conveyance facilities to San Joaquin Powerhouses 1A, 2, and 3). Many of the archaeological sites within the Crane Valley Archaeological District represent the camps of immediate ancestors of Native Americans still living in the vicinity of the Crane Valley hydroelectric facilities. The ancestors were displaced when Bass Lake was created, and the archaeological sites are of great concern to Western Mono and Chuckchansi people, who are also concerned about natural resources, including basketry materials, that are found in the area.

The six NRHP-eligible sites at Balch Camp are located in and immediately around the operational headquarters for the Haas-Kings River and Balch facilities. Keller Ranch, the primary site at Balch Camp, is of particular importance to local Native Americans at Cold Springs Rancheria due to the presence of rock art panels and known human remains. However, Balch Camp has not been included in the APE of any FERC License, and no CRMP exists to address the NRHP eligible sites.

Kerckhoff Powerhouse No. 2 is within the Squaw Leap Archaeological District, and there are at least twenty prehistoric archaeological sites around Kerckhoff Reservoir; some of those sites are within the facility's FERC License Areas, but not all have been evaluated for NRHP eligibility. It is likely, however, that evaluation would show additional sites to be significant. In addition, there has been little consultation with local Native Americans regarding their concerns about resources in this area.

Although surveys showed relatively few sites within the FERC Licensed Areas of the Kings River Bundle, the area is known to be rich in archaeological resources, local Native Americans have shown a high degree of concern about the protection of both cultural and natural resources in the area.

In addition to development, new THPs are anticipated in Bundles 16 (Crane Valley, around Bass Lake and Manzanita Lake) and 17 (Kings River), and could directly and indirectly affect cultural resources within Project lands in these areas, since these activities could increase the number of people in sensitive or potentially sensitive areas throughout the Kings Crane-Helms Regional Bundle. This is particularly true of resources proximate to facilities such as reservoirs that provide recreational uses, but there are potential spill-over effects as well. More people around Bass Lake could, for instance, have indirect effects on resources associated with the Squaw Leap Archaeological District at Kerckhoff.

Based on the above discussion, future development resulting from or enabled by divestiture, as well as the expansion of timber harvesting activities, could directly affect cultural resources within the Kings Crane-Helms Regional Bundle, due to the ground-disturbance inherent in these activities. Additionally, these activities could increase the number of people in sensitive areas, permanently or

temporarily, which could cause indirect adverse effects to resources that are known or may be present, due to inadvertent damage or vandalism. This would result in a *significant impact*.

#### **4.7.8.6 Evaluation of Impact 7-1 to Entire System**

The Project could result in significant impacts to cultural resources in every regional bundle, as a result of potential future development and anticipated new and expanded timber harvesting activities. Additionally, anticipated mineral extraction activities could result in significant impacts to cultural resources in the Shasta Regional Bundle (Hat Creek and Pit River Bundles) and Motherlode Regional Bundle (Stanislaus River Bundle). The project would, therefore, result in a *significant impact* on cultural resources throughout the entire system, as a result of projected future development, timber harvesting, and/or mineral extraction activities.

#### **4.7.8.7 Impact 7-1: Mitigation Measures**

##### **Mitigation Measures Proposed as Part of the Project**

None proposed.

##### **Mitigation Measures Identified in This Report**

**Mitigation Measure 7-1a:** Prior to transfer of ownership of any Project Lands, the new owner shall identify a qualified cultural resources specialist (who is a member of the Registry of Professional Archaeologists), who shall assume responsibility for the following activities:

- Maintaining a library of documentation regarding cultural resources on all lands acquired by the new owner as a result of the project.
- Ensuring compliance with FERC license conditions, CRMPs or Heritage Resources Management Plans, BMPs, and conditions of sale regarding cultural resources.
- Maintaining relations with, and addressing concerns of Native American groups with respect to lands or sites of significance in lands owned, and of archaeological collections in storage by the new landowner.
- Consulting with SHPO and other Federal and State agencies, when appropriate.
- Ensuring that subsequent buyers of Project Lands are aware of cultural resources constraints on areas subject to purchase.

After the new owner has identified the qualified cultural resources specialist, Pacific Gas and Electric Company shall provide to the cultural resources specialist for the new owner, upon transfer of title, all materials regarding cultural resources present on Project Lands, regardless of confidentiality status under Section 583 of the California Public Utilities Code.

**Mitigation Measure 7-1b:** Prior to approval of any land use development change, a qualified cultural resource specialist shall develop a plan for implementation in connection with such

development that addresses the cultural resources, including sites of significance to Native Americans, that are identified or determined likely to be present on-site, including:

- Documentation of cultural resources investigations, including consultation with appropriate Native American groups, to an acceptable professional standard for submittal to the appropriate CHRIS Information Center, and to the cultural resources specialist designated pursuant to Mitigation Measure 7-1a.
- Avoidance of identified significant resources to the extent feasible.
- If avoidance is not feasible, development and implementation of mitigation measures, pursuant to Section 21083.2 of the Public Resources Code and Section 15064.5(f) of the CEQA Guidelines.

**Mitigation Measure 7-1c:** If any previously unidentified cultural resources are discovered during soil-disturbing activities for land use development changes or mining activities, all soil-disturbing work within 100 feet of the find shall cease. Activities could continue on other parts of the development site. The developer or landowner shall provide contingency funding and a sufficient time allotment to allow a determination of the significance of the resource by a qualified consultant, and if appropriate, development and implementation of avoidance or mitigation measures pursuant to Section 21083.2 of the Public Resources Code and Section 15064.5(f) of the CEQA Guidelines. Avoidance of significant resources shall always be given first consideration, and shall be attempted to the extent feasible.

**Mitigation Measure 7-1d:** If human remains are encountered during construction of any new land use development or mining activities, work shall cease within a 100-foot radius of the remains, the county coroner shall be contacted immediately, and the process set forth in Section 15064.5(e)(1-2) of the CEQA Guidelines shall be followed.

**Mitigation Measure 7-1e:** Prior to approval of any land use development change or additional mineral extraction activities on the Project Lands that would result in modifications to a structure over 45 years in age, the new owner shall:

- Retain a qualified Cultural Resource Specialist (who meets the U.S. Secretary of Interior's Standards and has experience with the type of historic resource under analysis) to determine if the structure is historically significant under CEQA Guidelines Section 15064.5.
- If a historic structure is determined to be significant, any modifications and/or destruction of the structure shall be avoided.
- If a historic structure is determined to be significant and avoidance is not feasible, then an adaptive reuse plan shall be developed consistent with CEQA Guidelines Section 15064.5(b).

**Mitigation Measure 7-1f:** All THPs or major Amendments to THPs submitted after divestiture shall comply with all provisions described in Protecting Archaeological Sites in California's Timberlands: A Guide for Licensed Timber Operators and Timberland Owners, prepared by the California Department of Forestry and Fire Protection. The THP or Amendment shall include, at a

minimum, the procedures delineated in Mitigation Measure 7-1c, 7-1d, and 7-e, including a plan for addressing resources that are known to be present.

**Alternate Mitigation Measure 7-1:** As an alternative to Mitigation Measures 7-1a through 7-1f, above, prior to or concurrent with the transfer of title for any bundle, there shall be recorded against the lands within the bundle conservation easements running with the land and (in a form and substance approved by the CPUC) precluding any further land use development, or expansion of timber harvest or mineral extraction activities.

#### **4.7.8.8 Impact 7-1: Level of Significance After Mitigation**

Implementation of Mitigation Measures 7-1a through 7-1f would reduce Impact 7-1 to a *less-than-significant* level in Bundles 1-20. Alternatively, implementation of Alternate Mitigation Measure 7-1 would eliminate the impact altogether.

#### **4.7.9 IMPACT 7-2: IMPACT, ANALYSIS, AND MITIGATION MEASURES**

**Impact 7-2: The project could result in constraints on Native American access to culturally or historically significant lands or landforms (Significant).**

##### **4.7.9.1 Impact 7-2: Shasta Regional Bundle**

Native Americans from several Bands of the Pit River Tribe place a high degree of importance on natural and cultural resources around the entire Pit River drainage. Important villages and fishing areas were inundated by hydroelectric reservoirs early in the twentieth century, yet the area continues to be of exceptional importance due to the presence of ancestral settlements and traditional resources used on an on-going basis.

Ethnographic studies have been conducted for Pit 1 (FERC 2687), and for Pit 3, 4, and 5 (FERC 0233), and consultation with the Pit River Tribe is well documented not only for those licenses but also for Hat Creek 1 and 2 (FERC 2661). Lake Britton (in Bundle 2) is an area of particular sensitivity, but important areas are located both within and outside of FERC Licensed Areas. Of the facilities in Bundles 1 and 2, only McCloud-Pit (FERC 2106) lacks ethnographic study and consultation. FERC 2106 does not, however, lack sensitivity: as discussed in Local Settings, the Pit River Tribe has identified settlements, trails, and former allotment lands as issues of concern. There are 2,672 acres of land outside of the FERC License Area associated with Hat Creek 1 and 2 (Bundle 1), and 27,199 acres of land outside of the FERC License Area associated with Pit 1, Pit 3, 4, and 5, and McCloud-Pit (Bundle 2)—a total of 29,871 acres—to which Native American currently have some degree of access, and to which access could be lost if those lands are sold. The risk of such an occurrence is slightly higher in Pit 1 and Pit 3,4,5, since, along with development, which, as stated above in Section 4.7.6, could preclude access, mineral extraction could occur all along the Pit River and timber harvesting could also occur in Project Lands in Bundle 2. Safety and security issues associated with both of these activities could, as stated above

in Section 4.7.6, result in constraints on Native American access. The Pit River Tribe has recently expressed concern regarding the lands and access to the lands in the vicinity of all of the hydroelectric facilities.

There have been no ethnographic studies and no Native American consultation efforts, for Kilarc-Cow Creek (FERC 0606) and Battle Creek (FERC 1121), in Bundles 3 and 4, and within Central and Southern Yana territory, respectively. Yana people are included among members of the Pit River Tribe. There are 2,490 acres of land outside of Kilarc-Cow Creek FERC licensed lands (Bundle 3) and 6,078 acres of land outside of Battle Creek FERC licensed lands (Bundle 4)—a total of 8,568 acres—to which Native American access could be lost if those lands are sold, and the Pit River Tribe has stated that many ancestral cultural resources exist within these lands.

In addition to the known and unidentified cultural resources located within FERC License Areas, there are 38,439 acres of Watershed Lands within this regional bundle. These lands have not been inventoried for ethnographic resources, but the Pit River Tribe has made it clear that the lands include many archaeological sites, sacred sites, and areas where Native Americans gather a wide variety of natural resources.

Future development in any of the sensitive areas described above could constrain Native American access to the sites of significance to them within these Project lands, due to privacy, security, or safety concerns, depending ultimately upon the type of development. In addition to development, mineral extraction activities could occur within Bundle 1 in this regional bundle, and new timber harvest entries into Project Lands in this bundle could also occur: new THPs and re-entries are anticipated in every bundle except Bundle 1 (Hat Creek) within the Shasta Regional Bundle, and the activities associated with mineral extraction and timber harvesting could constrain Native American access to sites within or near harvest areas, due to safety concerns or security concerns (such as equipment theft prevention), as stated in Section 4.7.6.

None of the current FERC licenses include conditions governing Native American access to traditional lands and resources, or licensee consultation with Native Americans, regarding Watershed Lands. Additionally, Watershed Lands carry no protection for Native American access. Changes in land ownership, with or without new development, timber harvesting, and/or mineral extraction, could potentially result in Native American people being denied access to traditional lands where they have been and currently are able to gather basketry materials, other craft materials and foodstuffs; where they could visit former village sites occupied by their ancestors before construction of the hydroelectric facilities; and where they visit ancestral graves, pray, and conduct ceremonial activities. This would constitute a *significant impact*.

#### **4.7.9.2 Impact 7-2: DeSabra Regional Bundle**

As stated above the discussion for Impact 7-1 for the DeSabra Regional Bundle, development could occur at varying in intensities in all of the Project Lands in the regional bundle.

As stated in the Local Setting section, the DeSabra Regional Bundle includes the traditional territory of the Northeastern (Mountain) and Konkow (Northwestern Maidu). Pacific Gas and Electric Company has not conducted any systematic ethnographic studies pertaining to the DeSabra Regional Bundle; information is provided from contemporary representatives of these groups, primarily members of the Maidu Cultural and Development Group (MCDG), Mooretown Rancheria, and Machoopda Rancheria. Although no specific resources have been identified for Bundles 7 (Bucks Creek) and 8 (DeSabra-Centerville), representatives have indicated concern regarding the lands and access to the lands associated with this Regional Bundle in general; therefore, the Project Lands throughout this Regional Bundle must be considered sensitive. However, some tribal representatives have identified specific resources in other bundles, and these are discussed in the Local Settings sections for the appropriate facilities, and are summarized below.

Resources of concern include village sites, burial sites, gathering sites for food, medicine, and basket-weaving plants, and sacred ceremonial sites to which Native Americans currently have access. Some of these resources may correlate with archaeological or historic archaeological sites; therefore Project Lands that are known to contain such resources may be considered sensitive for sites of significance to Native Americans, as well. According to Pacific Gas and Electric Company, no formal or informal agreements exist with the Maidu Indian Tribe, but Pacific Gas and Electric Company employees have observed members of the tribe using access roads to cross Project Lands.

Bundle 6 (UNFFR) lies within traditional Northeastern (Mountain) Maidu territory. A specific feature cited by Native Americans is Lake Almanor, which was formerly known to them as Big Meadows, and is an area with a substantial concentration of Native American cultural resources. Ancestral lands were also located near Feather Falls, and Martin and Spencer Cemeteries. Watershed Lands within Humbug Valley are also within Maidu territory, and sacred and ceremonial sites are known and are used in these areas: several bedrock mortar sites are known, and a known burial site also serves as an annual gathering place for the Maidu. Other burials, some within family cemeteries, as well as a sweat lodge and roundhouse, are also known within Watershed Lands in this bundle.

Future development in any of these areas could constrain Native American access to the sites of significance to them within these Project lands, due to privacy, security, or safety concerns, depending ultimately upon the type of development. In addition to development, new timber harvest entries into Project Lands in this bundle could also occur: new THPs and re-entries are anticipated in all bundles within the DeSabra Regional Bundle, and the activities associated with timber harvesting could constrain Native American access to sites within or near harvest areas, due to safety concerns or security concerns (such as equipment theft prevention), as stated in Section 4.7.6.

None of the current FERC licenses include conditions governing Native American access to traditional lands and resources, or licensee consultation with Native Americans, regarding

Watershed Lands. Additionally, Watershed Lands carry no protection for Native American access. Changes in land ownership, with or without new development and timber harvesting, could potentially result in Native American people being denied access to traditional lands where they currently are able to gather basketry materials, other craft materials and foodstuffs; visit former village sites occupied by their ancestors before construction of the hydroelectric facilities; and visit ancestral graves, pray, and conduct ceremonial activities. This would constitute a *significant impact*.

### 4.7.9.3 Impact 7-2: Drum Regional Bundle

As stated above and in the discussion for Impact 7-1 for the Drum Regional Bundle, development at varying intensities could occur in all Watershed Lands in the of the Drum Regional Bundle. The lands of the eastern Drum Regional Bundle (Bundles 9, 11, and 12) are within the traditional territory of the Konkow (Northwestern Maidu) and Nisesnan (Southern Maidu). Additionally, the Washoe traveled into the eastern Drum Region. Pacific Gas and Electric Company has conducted no ethnographic studies or substantive, systematic consultation for this area; however, the Maidu Tribe has expressed an interest in the effects of new ownership and of the possible loss of access to lands of significance to them, and the Maidu and Washoe have, as stated in the Local Settings section for this bundle, indicated “intense interest” in these lands to the USFS. As stated above in assumptions regarding this analysis (Section 4.7.6), many Native Americans decline to provide specific locations of significant sites, particularly for a public document, due to the sensitive nature of the sites. Therefore, the Project Lands for Bundles 9, 11, and 12 must be considered sensitive and may contain sites of significance to the Maidu and/or Washoe Tribes to which continued access is a concern. Future development within the Project Lands of Bundles 9, 11, or 12 could not only destroy or materially alter the resources known or considered likely to be present (including sites of significance to Native Americans: see Impact 7.1): if development occurs near or around these resources, Native American access to these sites could be constrained by the physical development, such as its configuration, or the addition of fences and other barriers to maintain privacy or security, depending upon the uses developed.

Neither new nor expanded timber harvesting is anticipated to occur within bundles 11, or 12, and no new mineral extraction is anticipated in this regional bundle. However, four new THPs could be opened in Bundle 9. Aside from the ground-disturbance associated with timber harvesting activities, access to areas in which harvesting is active could be constrained, due to safety concerns or security concerns (such as equipment theft), as discussed in Section 4.7.6.

The Watershed Lands associated with Bundle 10 (Potter Valley), which lie in the western portion of the Drum Regional Bundle, also contain known cultural resources to which access may be affected by development or timber harvesting activities. The Wiyot Tribe of the Table Bluff Rancheria has indicated concern regarding the condition and access to fisheries within this area (the Eel River). Additionally, concerns have been voiced regarding continued access to basket-making materials within Project Lands in this bundle. The Round Valley Indian Tribes have also raised the issue of

continued fishing rights and access. It is important to note that fishing is considered a cultural issue by many tribes, linked not only to subsistence but to ceremony. Although detailed impacts to fisheries are addressed elsewhere in this document (Section 4.4), development and timber harvesting are both anticipated to occur within the Project Lands in Potter Valley (mineral extraction is not anticipated to occur). These activities could constrain access (as described in Section 4.7.6) to areas with basketry materials and to fishing spots, particularly since timber harvesting may occur along the Eel River, near or within which lie several resources to which the Native Americans have expressed concern regarding access.

None of the current FERC licenses include conditions governing Native American access to traditional lands and resources, or licensee consultation with Native Americans regarding Watershed Lands. Additionally, Watershed Lands carry no protection for Native American access. Changes in land ownership, with or without new development and timber harvesting, could potentially result in Native American people being denied access to traditional lands where they are able to gather basketry materials, other craft materials and foodstuffs; visit former village sites occupied by their ancestors before construction of the hydroelectric facilities; and visit ancestral graves, pray, and conduct ceremonial activities. This would constitute a *significant impact*.

#### **4.7.9.4 Impact 7-2: Motherlode Regional Bundle**

As described above in local settings for this bundle, the Motherlode Regional Bundle lies within the traditional territory of the Northern, Central, and Southern Sierra Miwok. Washoe people also traveled within the region, and portions of the upper elevations of this regional bundle lie within Washoe traditional territory. Northern Paiute also traveled in the southern portion of this regional bundle, and Northern Valley Yokuts territory occurs west of these lands.

Yokut people have expressed concern regarding the protection of burials, ancestral campsites, and “water source areas” (effectively, gathering sites) within the Project Lands in the Motherlode Regional Bundle and the Jackson-Ione and Calaveras Bands of Miwok Indians, as well as the Washoe, have indicated interest in the Project Lands in Bundle 13 (Mokelumne River). Fifty sacred sites and other sites of significance to Native Americans have been documented in FERC License Areas alone. Other sites include CA-Cal-318 within the Stanislaus National Forest. Additionally, the preservation of access to the Mokelumne River drainage was stated as a concern: of particular importance are two sites near Tiger Creek Reservoir, and gathering areas within the drainage.

No specific sites were named within Bundles 14 (Stanislaus River) or 15 (Merced River); however, the Central Sierra Me-Wuk Cultural and Historical Preservation Committee, representing the Tuolumne Band of Me-Wuk Indians, expressed concern regarding traditional cultural properties there. A spokesperson for the American Indian Council/Southern Sierra Miwok expressed concern regarding the protection of archaeological sites and burials, as well as access to areas in which basketry materials are gathered, within Bundle 15. Additionally, the North Valley Yokut Tribe

indicated that Yokut descendants have traveled into and through the Project Lands within Bundle 15, and the contemporary Yokut are concerned about the cultural resources within these lands. Bundles 14 and 15 may, therefore, be considered sensitive as a whole for sites and resources to which access is of significance to Native Americans.

In addition to the potential development within all Project Lands within this regional bundle, new or expanded timber harvesting activities could occur in Bundles 13 and 14, and new mineral extraction activities could start within Bundle 14. Both of these activities could constrain Native American access to sites within or near harvest or extraction areas, due to safety concerns or security concerns (such as equipment theft prevention), as discussed in Section 4.7.6.

None of the current FERC licenses include conditions governing Native American access to traditional lands and resources, or licensee consultation with Native Americans. Additionally, Watershed Lands carry no protection for Native American access. Changes in land ownership, with or without new development, timber harvesting, and/or mineral extraction, could potentially result in Native American people being denied access to traditional lands where they have been able to gather basketry materials, other craft materials and foodstuffs; where they could visit former village sites occupied by their ancestors before construction of the hydroelectric facilities; and where they were able to visit ancestral graves, pray, and conduct ceremonial activities. This would constitute a *significant impact*.

##### **4.7.9.5 Impact 7-2: Kings Crane-Helms Regional Bundle**

Native Americans from several local groups place a high degree of importance on natural and cultural resources around Bass Lake, to which they currently enjoy access through an informal agreement with Pacific Gas and Electric Company. Crane Valley was an important residential area before it was inundated by Bass Lake early in the twentieth century, and the area continues to be of exceptional importance to Native Americans, because of the presence of ancestral settlements and traditional resources used on an on-going basis. Western Mono, Chuckchansi, Southern Miwok and Yokuts people expressed concern about preservation of access for gathering basketry materials, mushrooms, and other traditional vegetation; protection of bedrock mortar and other archaeological sites, especially those sites affected by erosion at Bass Lake; development of protocols on the use of herbicides; and consultation on a regular basis regarding to various other issues pertaining to cultural resources.

There has been no ethnographic consultation for the Kerckhoff license, but it is highly likely that Western Mono people use basketry materials and other traditional plants in the project area. Ethnographic consultation for the Haas-Kings River license showed relatively little contemporary use of traditional resources in the project area (which also includes Helms Pumped Storage and Balch), although some use occurs. Nonetheless, Western Mono people have expressed a high degree of concern for preservation and enhancement of traditional plants and animal that are still used for cultural and/or subsistence purposes. The Cold Springs Rancheria in particular has shown

very high levels of concern for the rock art which may occasionally be visited, and archaeological materials located at Balch Camp, and has repeatedly attempted to secure on-going consultation regarding activities affecting Balch Camp.

Future development in any of the sensitive areas described above could constrain Native American access to the sites of significance to them within these Project lands, due to privacy, security, or safety concerns, depending ultimately upon the type of development. In addition to development, new timber harvest entries into Project Lands in this bundle could also occur: new THPs and re-entries are anticipated in Bundles 16 (Crane Valley) and 18 (Kings River) within this regional bundle, and the activities associated with timber harvesting could constrain Native American access to sites within or near harvest areas, due to safety concerns or security concerns (such as equipment theft prevention), as stated in Section 4.7.6.

None of the current FERC licenses include conditions governing Native American access to traditional lands and resources, or licensee consultation with Native Americans, regarding Watershed Lands. Lands outside FERC License Areas carry no protection for Native American access, and changes in land ownership, with or without new future development or timber harvesting, could result in the termination of the informal agreement allowing Native American access to Bass Lake. Native American people could also be denied access to other traditional lands where they gather basketry or other craft materials and foodstuffs; visit former village sites occupied by their ancestors before construction of the hydroelectric facilities; and to visit ancestral graves, pray, and carry out ceremonial activities, for the reasons described in Section 4.7.6. This would constitute a *significant impact*.

#### **4.7.9.6 Evaluation of Impact 7-2 to Entire System**

Project Lands within every regional bundle have been identified as sensitive with respect to areas, sites, or resources of traditional or historic significance to Native Americans. Additionally, development and/or timber harvesting have been projected to occur in all Project Lands, and these activities all have the potential to constrain or prevent access by Native Americans to a range of resources significant to them, as described in Section 4.7.6. Additionally, no regulatory protection exists to require that access be provided or that consultation occur; therefore, any owner could, at its sole discretion, constrain or deny access for any reason, and the potential loss of access by Native Americans to all Project Lands and the resources within would constitute a *significant* system-wide impact.

#### **4.7.9.7 Impact 7-2: Mitigation Measures**

##### **Mitigation Measures Identified as Part of the Project**

None proposed.

### **Mitigation Measures Identified in This Report**

**Mitigation Measure 7-2a:** Implement Mitigation Measure 7-1a.

**Mitigation Measure 7-2b:** Prior to the transfer of title for any bundle, the new owner shall by binding written instrument (binding upon successors-in-interest) agree to provide reasonable access to, when given reasonable notice by, Native American groups who have identified ethnographic or heritage resource values on the Project Lands to which access is deemed important.

**Mitigation Measure 7-2c:** Prior to the transfer of title for Bundle 16, the informal practice currently employed by Pacific Gas and Electric Company that allows access by Native Americans to the Project Lands surrounding and including Bass Lake for collecting native vegetation materials shall, by written instrument, be made binding on the new landowner.

**Mitigation Measure 7-2d:** Prior to approval of any land use development change, the new owner shall consult with the Native American Heritage Commission and with Native American groups likely to be interested in access to the land proposed for development to determine appropriate measures to ensure that Native American people whose ethnographic resources and heritage values are represented on the land shall continue to enjoy reasonable access to the land and sustainable use of the resources, through continued implementation of the agreements required by Mitigation Measure 7-2b or the dedication of access easements, or adequate compensatory measures, or some combination of such measures.

#### **4.7.9.8 Impact 7-2: Level of Significance After Mitigation**

Implementation of Mitigation Measures 7-2a, 7-2b and 7-2d would reduce Impact 7-2 to a *less-than-significant* level in Bundles 1-15 and 17-20. Implementation of Mitigation Measures 7-2a, 7-2c and 7-2d would reduce Impact 7-2 to a *less-than-significant* level in Bundle 16.

#### **4.7.10 IMPACT 7-3: IMPACT, ANALYSIS, AND MITIGATION MEASURES**

**Impact 7-3: Changes in hydroelectric operations and reservoir management could result in damage or destruction of cultural resources (Significant).**

##### **4.7.10.1 Impact 7-3: Shasta Regional Bundle**

Within the Shasta Regional Bundle, five reservoirs within the Pit River Bundle (Bundle 2) were determined to have the potential for significant changes in operation of hydroelectric facilities as a result of the project. Regulatory or physical constraints upon the other facilities in this regional bundle prevented any substantial change in operation from the baseline conditions. Consequently, only the Pit 6 and 7 Reservoirs, Iron Canyon Reservoir, and Lakes Britton and McCloud were modeled under both the PowerMax and WaterMax Scenarios to determine the degree of change in reservoir storage and elevation patterns that could result from the project.

**Bundle 2: Pit River**

For the reservoirs in the Pit River Bundle that were modeled (Pit 6 and 7, Iron Canyon, and Lakes Britton and McCloud), WaterMax Scenario was determined not to be a feasible operating strategy. Consequently, only the PowerMax Scenario was considered. Under the PowerMax Scenario, peak water levels in all five reservoirs are similar to those under baseline conditions; however, changes in reservoir draw-down and filling could expose shoreline areas for longer periods of time than under baseline conditions.

Cultural resources are known to be present within each of the FERC License Areas that include these reservoirs, as discussed above in Section 4.1.4. Cultural resources proximate to Lake Britton include the NRHP-listed Lake Britton Archaeological District. In addition to identified resources, many reservoirs have not been surveyed for cultural resources during a low water period. This is important because reservoirs are generally associated with stream channels, which tended to be common areas for Native American settlement, as well as for gathering riparian plant materials, fishing, or conducting ceremonial activities (as noted above under Ethnographic Resources in Section 4.7.3). Evidence of these activities (i.e., archaeological sites), as well as the historically or culturally significant sites themselves, are likely to have been inundated by the creation of a reservoir. These sites could be exposed for longer periods of time under the PowerMax Scenario than under baseline conditions, which may increase the risk of damage to these resources from human activity, either inadvertent or through vandalism or looting, or through exposure to the elements. Additionally, increases in water level fluctuation could subject cultural resources present to additional erosion from shoreline effects, or the wave action against areas where the water level meets the soil. These effects would constitute a *significant impact*.

**Impact on Entire Regional Bundle**

Since bundles within the Shasta regional bundle could experience significant impacts to cultural resources as a result of changes in hydroelectric operations under the PowerMax Scenario, the impact to the entire Shasta Regional Bundle would be considered *significant*.

**4.7.10.2 Impact 7-3: DeSabra Regional Bundle**

Within the DeSabra Regional Bundle, one reservoir within the Hamilton Branch Bundle (Bundle 5), two reservoirs within the Upper North Fork Feather River Bundle (Bundle 6), and two reservoirs within the Bucks Creek Bundle (Bundle 7) were determined to have the potential for significant changes in the effects associated with operation of hydroelectric facilities as a result of the project. These reservoirs were modeled under both the PowerMax and WaterMax scenarios to determine the degree of change in reservoir storage and elevation patterns, compared to baseline conditions, that could result from the project.

### **Bundle 5: Hamilton Branch**

Mountain Meadows Reservoir, under both the PowerMax and WaterMax scenarios, could be subjected to changes in reservoir draw-down and filling, which could expose shoreline areas for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.10.1. In addition, under both bounding cases, water levels maintained within the reservoir could exceed the levels held under baseline conditions, which could subject sites to an increased degree of water-based erosion effects over the baseline conditions.

Cultural resources are not known to be present within the FERC License Areas and Watershed Lands of the Hamilton Branch Bundle; however, as described above in Section 4.7.4.2, little or no archaeological work has been conducted in these Project Lands, and unidentified resources are likely to be present near or within the reservoir, as discussed above in Section 4.7.7.3. The fill and draw-down changes described above, as well as the increased potential for shoreline effects associated with possible increases in water level fluctuation, could expose unidentified cultural resources to an increased exposure compared to baseline conditions, which could increase the risk of damage from human activities such as vandalism or looting, as well as the elements. Additionally, changes in operation could, under both scenarios, subject sites to more frequent or prolonged inundation than under the baseline conditions. This increased potential for damage would constitute a *significant impact*.

### **Bundle 6: Upper North Fork Feather River**

As a result of the project, operation of the hydroelectric facilities in the Upper North Fork Feather River Bundle (Lake Almanor and Butt Valley Reservoir) could be managed differently under both the PowerMax and WaterMax scenarios. Under both scenarios, changes in reservoir draw-down and filling could expose shoreline areas for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7.3. In addition, under both scenarios, water levels maintained within the reservoir could exceed the levels held under baseline conditions, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As described above in Section 4.7.4.2, cultural resources have been identified within the FERC License Areas and Watershed Lands associated with these reservoirs, and as described above in Section 4.7.7.3, Lower Bucks Lake was not cited by PAR as a surveyed area and additional resources are likely to be present, particularly since the North Fork Feather River Canyon is considered by the U.S. Forest Service to be an area of special significance because of the high degree of Native American habitation. These sites, both identified and unidentified, could be exposed and/or inundated for longer periods of time or with greater frequency under the PowerMax and WaterMax Scenarios than under the baseline conditions, which could result in an increased risk

of damage from the elements or from human activities, such as looting or vandalism, as well as from shoreline or inundation effects. This increased risk would constitute a *significant impact*.

#### **Bundle 7: Bucks Creek**

As a result of the project, operation of the hydroelectric facilities in the Bucks Creek Bundle (Bucks Lake and Lower Bucks Lake) could be managed differently under the PowerMax and WaterMax Scenarios. Under both scenarios, changes in reservoir draw-down and filling could expose shoreline areas in these reservoirs for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase the risk of damage from shoreline effects, as discussed above in Section 4.7.7.

As described above in Section 4.7.4, cultural resources have been identified on Project Lands associated with Bucks Lake, and as described above in Section 4.7.7, additional resources are likely to be present, particularly since the Project Lands within this bundle have not been completely surveyed. These sites, both identified and unidentified, could be exposed for longer periods of time or with greater frequency under either scenario than under the baseline conditions, which could result in an increased risk of damage from the elements or from human activities, such as looting or vandalism, as well as from shoreline effects. This increased risk would constitute a *significant impact*.

#### **Impact on Entire DeSabra Regional Bundle**

Changes in hydroelectric operations are not expected to significantly affect reservoirs in Bundle 8. However, Bundles 5, 6 and 7 analyzed within this regional bundle could experience significant cultural resources impacts as a result of changes in hydroelectric operations, under both the PowerMax and WaterMax Scenarios. Thus, the impact to the entire DeSabra Regional Bundle would be *significant*.

#### **4.7.10.3 Impact 7-3: Drum Regional Bundle**

Within the Drum Regional Bundle, one reservoir within the North Yuba River Bundle (Bundle 9), one reservoir within the Potter Valley Bundle (Bundle 10), and three reservoirs within the South Yuba River Bundle (Bundle 11) were determined to have the potential for significant changes in the effects associated with operation of hydroelectric facilities as a result of the project. These reservoirs were modeled under the PowerMax and WaterMax Scenarios to determine the degree of change in reservoir storage and elevation patterns, compared to baseline conditions, that could result from the project.

#### **Bundle 9: North Yuba River**

As a result of the project, operation of the hydroelectric facilities in the North Yuba River Bundle (Lake Englebright) could be managed differently under either the PowerMax or WaterMax Scenarios. Under both scenarios, changes in reservoir draw-down and filling could expose

shoreline areas in these reservoirs for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7. In addition, under both scenarios, water levels maintained within the reservoir could exceed the levels held under baseline conditions, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As described above in Section 4.7.4, few cultural resources have been identified within the Project Lands associated with this facility; however, as described above in Section 4.7.7, additional resources are likely to be present, particularly since the Project Lands within this bundle have not been completely surveyed, and whether the interior of the reservoir was surveyed is undecided. Additionally, the Maidu and Washoe have expressed concern for potential resources within their traditional and historic lands, which include the lands in this Bundle. Unidentified sites could therefore be exposed for longer periods of time or with greater frequency under the PowerMax and WaterMax Scenarios than under the baseline conditions, which could result in an increased risk of damage from the elements or from human activities, such as looting or vandalism, as well as from shoreline effects. This increased risk to unidentified cultural resources would constitute a *significant impact*.

#### **Bundle 10: Potter Valley**

Lake Pillsbury in the Potter Valley FERC License Area is the only reservoir for which modeling was determined to be necessary. Lake Pillsbury is already operated under a WaterMax Scenario; consequently, no operational changes were to occur under the WaterMax Scenario. However, under the PowerMax Scenario, changes in reservoir draw-down and filling could expose shoreline areas in Lake Pillsbury for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7.3. In addition, in the PowerMax Scenario, water levels maintained within the reservoir could exceed the levels held under baseline conditions, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As described above in Section 4.7.4, cultural resources have been identified within the Project Lands associated with this facility, and the Wiyot Tribe has indicated concern for the Project Lands and the sites and cultural values in this bundle. Additionally, as described above in Section 4.7.7, unidentified resources are likely to be present, particularly since such a small portion of the FERC License Lands associated with the reservoir have been completely surveyed. Both known and unidentified cultural resources could therefore be exposed for longer periods of time or with greater frequency under the PowerMax Scenario than under the baseline conditions, which could result in an increased risk of damage from the elements or from human activities, such as looting or vandalism. An increased risk of damage to resources from inundation and shoreline effects could

also occur under PowerMax Scenario. This increased risk to cultural resources would constitute a *significant impact*.

#### **Bundle 11: South Yuba River**

As a result of the project, three reservoirs in the South Yuba River Bundle (Bundle 11: Rollins Reservoir, Lake Fordyce, and Lake Spaulding) could be managed differently under the PowerMax and WaterMax Scenarios. Under both scenarios, for these three reservoirs, changes in reservoir draw-down and filling could expose shoreline areas for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7. In addition, under both scenarios, water levels maintained within the reservoir could exceed the levels held under baseline conditions more frequently or for longer periods of time, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As described above in Section 4.7.4, cultural resources have been identified within the Project Lands associated with Lakes Spaulding and Fordyce (no surveys have been conducted within the FERC License Area that includes Rollins Reservoir). Also, for the reasons described above in Section 4.7.7, additional resources are likely to be present, primarily because Rollins Reservoir has not been surveyed, and consultation with Native Americans has indicated a high level of interest in the lands in and near the Drum-Spaulding facility on the part of the Maidu and Washoe. Therefore, unidentified cultural resources could be exposed and/or inundated for longer periods of time or with greater frequency under the PowerMax and WaterMax Scenarios than under the baseline conditions, which could result in an increased risk of damage from the elements, or from human activities, such as looting or vandalism, as well as from shoreline or inundation effects. This increased risk would constitute a *significant impact*.

#### **Impact to Entire Drum Regional Bundle**

Reservoirs in Bundle 13 are unlikely to be significantly affected by changes in hydroelectric operations. However, because the PowerMax Scenario could result in significant impacts to cultural resources in Bundles 9, 10, and 11, and the WaterMax Scenario could result in significant impacts to cultural resources in Bundles 9 and 11, by potentially increasing inundation, shoreline erosion, and exposure of cultural resources to damage for longer periods of time than under the baseline conditions, changes in hydroelectric operations within the Drum Regional Bundle would result in a *significant impact* to cultural resources.

#### **4.7.10.4 Impact 7-3: Motherlode Regional Bundle**

#### **Bundle 13: Mokelumne River**

Five reservoir complexes (Upper and Lower Bear and Salt Springs Reservoirs, Twin and Meadows Lakes, and Blue Lakes) were modeled within Bundle 13 (Mokelumne River), due to potential effects anticipated from changes in operation under the PowerMax and WaterMax Scenarios.

Under both scenarios, changes in reservoir draw-down and filling could expose shoreline areas in these five reservoir complexes for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7. In addition, under both scenarios, water levels maintained within the reservoir could exceed the levels held under baseline conditions more frequently or for longer periods of time, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As stated above in Section 4.7.4, archaeological and/or historic sites have been identified in the FERC Licensed Area associated with all of these reservoirs except Lower Bear. However, surveys conducted in the vicinity of these reservoirs may not have included the interior areas of the reservoirs during periods of low water levels. Additionally, as discussed above in Section 4.7.7, unidentified resources may be present, due to the method by which reservoirs are created, and Native American groups have identified numerous sites of significance to them in the Project Lands associated with Bundle 13.

Therefore, cultural resources—both identified and unidentified—within these reservoirs could be exposed to increased damage from human or natural activity for longer periods under both bounding cases possible with the project, compared to the baseline condition. Additionally, both scenarios could increase the risk of damage to cultural resources from inundation, as well as from shoreline effects resulting from increased fluctuations in water levels. This increased potential for damage would constitute a *significant impact*.

#### **Bundle 14: Stanislaus River**

Four reservoirs (Lyons, Strawberry, Beardsley, and Relief Reservoirs) were modeled within Bundle 14, due to potential effects anticipated from changes in operation under the PowerMax and WaterMax Scenarios. Under both scenarios changes in reservoir draw-down and filling could expose shoreline areas of these reservoirs for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7. In addition, under both scenarios, water levels maintained within the reservoir could exceed the levels held under baseline conditions more frequently or for longer periods of time, which could subject sites to an increased degree of water-based erosion effects that they have not been subject to under the baseline conditions.

As discussed in Section 4.7.4, cultural resources have been identified in the FERC License Areas that include all of these reservoirs except Beardsley Reservoir, for which surveys appear not to have been conducted. Some of these identified resources are sites that have been determined to be eligible for the NRHP. Therefore, cultural resources—both identified and unidentified—within three of these reservoirs could be exposed to increased damage from human or natural activity for longer periods under both scenarios possible with the project, compared to the baseline condition. Additionally, both scenarios could increase the risk of damage to cultural resources from

inundation, as well as from shoreline effects resulting from increased fluctuations in water levels. Lyons Reservoir is the exception; as stated above in Section 4.7.4, the significant site known within Lyons Reservoir has been stabilized with rip-rap, and a monitoring program has been instituted, pursuant to the revised CRMP for the Phoenix FERC Licensed facility; therefore, this resource has already been protected from looting, vandalism, and the elements. However, the increased potential for damage to resources within the other three reservoirs from the factors listed above would constitute a *significant impact*.

#### **Impact to Entire Motherlode Regional Bundle**

Potential changes in hydroelectric operations would not significantly affect reservoirs in Bundle 15. However, because changes in operation under both the PowerMax and WaterMax Scenarios could result in impacts to cultural resources within the Mokelumne River and Stanislaus River Bundles 13 and 14, respectively, changes in operation anticipated to result from the project could result in a *significant impact* to cultural resources within the Motherlode Regional Bundle as a whole.

#### **4.7.10.5 Impact 7-3: Kings Crane-Helms Regional Bundle**

##### **Bundle 16: Crane Valley**

Under both the PowerMax and WaterMax Scenarios, changes in reservoir draw-down and filling could expose shoreline areas in Bass Lake for longer periods of time than under baseline conditions, and could result in an increase in water level fluctuations, which could increase damage from shoreline effects, as discussed above in Section 4.7.7.

As discussed above in Section 4.7.4, cultural resources have been identified in FERC License Areas associated with Bass Lake, some of which include sites of significance to Native Americans, as well as archaeological sites associated with the Crane Valley National Register Archaeological District. Therefore, cultural resources—both identified and unidentified—within Bass Lake could be exposed to increased damage from human or natural activity for longer periods under both scenarios possible with the project, compared to the baseline condition. Additionally, both scenarios could increase the risk of damage to cultural resources from inundation, as well as from shoreline effects resulting from increased fluctuations in water levels. This increased potential for damage would constitute a *significant impact*.

#### **Impact to Entire Kings Crane-Helms Regional Bundle**

Operational changes under PowerMax Scenario could result in significant impacts to resources in Bass Lake in Bundle 16. The changes could result in a *significant impact* to cultural resources within the Kings Crane-Helms Regional Bundle as a whole.

#### **4.7.10.6 Evaluation of Impact 7-3 to Entire System**

Because impacts to cultural resources, as a result of changes in hydroelectric operations, would be significant in all regional bundles, the impact to the entire system would also be *significant*.

#### **4.7.10.7 Impact 7-3: Mitigation Measures**

##### **Mitigation Measures Identified as Part of the Project**

None proposed.

##### **Mitigation Measures Identified in This Report**

**Mitigation Measure 7-3:** Prior to the transfer of title for any bundle containing a hydroelectric facility that is not covered by a Cultural Resources Management Plan (CRMP), the new owner shall by binding written instrument agree to follow diligently the process set forth herein for preparing a CRMP and to be bound by such CRMP once it is approved by the SHPO. The draft CRMP shall be submitted to the SHPO for its review and considered for approval within 18 months of the transfer of title. Each such CRMP shall be prepared by a qualified cultural resources specialist and shall include the following:

- Cultural resources surveys of reservoirs during the lowest water levels of the year for archaeological, historical, and ethnographic resources. All resources shall be evaluated for significance.
- Measures for protection or stabilization of the resources identified in the survey above.
- An annual monitoring program to assess the effectiveness of the measures included in the CRMP. The CRMP shall be updated as a result of these surveys, if new resources are discovered within the reservoirs, or if the protection and/or stabilization measures are determined to be insufficient.

The CRMP prepared for FERC 0175 shall include Balch Camp. The cultural resources specialist appointed by the new owner shall be responsible for maintaining records regarding the results of the monitoring and any changes to the CRMPs.

Also, prior to the transfer of title for any bundle for which a CRMP or Heritage Resources Management Plan exists, the new owner shall by binding written instrument agree to implement the terms of such plans. Prior to the transfer of title, such plans shall be reviewed by a Cultural Resources Specialist to ensure that they meet the provisions specified above, and shall be amended as specified above if they do not. This requirement shall include plans that have been developed as part of a relicensing effort, but have not been finalized or incorporated into a renewed FERC license. Additionally, the new owner must provide notice to all parties involved in development of the plan that said new owner is assuming responsibility for compliance with the plan upon transfer of title, and shall provide the contact information for the new owner's cultural resources specialist. The new owner shall further notify interested parties that plan provisions can be modified upon request for and initiation of additional consultation, in the event that an interested party believes such consultation is warranted due to discovery of previously unknown cultural resources or to changes in project operation that have the potential to adversely affect cultural resources.

**4.7.10.8 Impact 7-3: Level of Significance After Mitigation**

Implementation of the provisions regarding water level regulation in Mitigation Measure 6-1 (See Section 4.6, Recreation) for the affected reservoirs cited above in Impact 7-3, Mitigation Measures 7-1b, and 7-3 would reduce Impact 7-3 to a *less-than-significant* level in Bundles 2, 5, 6, 7, 9, 10, 11, 13, 14 and 16.

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