4.15 AESTHETICS

4.15.1 INTRODUCTION TO AESTHETIC RESOURCES

This chapter describes the aesthetic resources associated with FERC Licensed Lands and Watershed Lands and the potential impacts associated with their change of ownership.

Aesthetic resources for all five regional bundles consist of highly scenic mountain ranges incised by rivers. Where public access is available, features common to all regional bundles, such as lakes, reservoirs, scenic highways and forest lands, provide public viewing opportunities. The aesthetic resources specific to each bundle and/or individual hydroelectric project are described in each of the five regional bundle sections below.

A new owner(s) of Pacific Gas and Electric Company's hydroelectric assets could change both historical land uses and hydroelectric operations that could impact visual resources. The impacts that could alter views of scenic resources and change the existing character of these resources include intensification of development, with a potential for inappropriate massing of structures, and new and spillover lighting; timber harvest, other than salvage activities in sensitive viewing areas; and reductions in reservoir levels at key recreational resources during the peak recreation season. These impacts are explored in more detail in Sections 4.15.7, 4.15.8, and 4.15.9 of this chapter.

4.15.2 SYSTEM-WIDE REGULATORY CONTEXT

Aesthetic resources within all five regional bundles are subject to Federal, State, and local regulations. These regulations are discussed in the sections that follow.

4.15.2.1 Federal Regulations and Policies

U.S. Forest Service Visual Quality Objectives

- National Forests administered by the U.S. Forest Service are subject to the Visual Quality Objectives (VQOs) established by the Forest Service's Visual Management System. Under this system, there are five VQO categories: Preservation, Retention, Partial Retention, Modification, and Maximum Modification. VQOs are established based on an evaluation of (1) Sensitivity Level (the public's concern for scenic quality – High, Moderate, and Low); (2) Variety Class (the diversity of natural features – Distinctive, Pleasing but Common, and Dull or Monotonous); and (3) Distance Zones (Foreground, Middleground, and Background).

- Preservation (P) – Only ecological changes are allowed. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to wilderness areas, primitive areas, other special classified areas, areas awaiting classification and some unique management units which do not justify special classification.

- Retention (R) – Only management activities which are not visually evident are allowed. Under Retention, activities may only repeat form, line, color, and texture which are frequently found in the characteristic landscape. Changes in their qualities of size, amount intensity, direction, pattern, etc., should not be evident. Immediate reduction in visual contrast (form, line, color, and texture) should be accomplished either during construction or immediately after.

- Partial Retention (PR) – Management activities are to remain visually subordinate to the characteristic landscape when managed according to the partial retention visual quality objective. Activities may repeat form, line, color, or texture common to the characteristic landscape, but changes in their quality of size, amount, intensity, direction, pattern, etc., remain subordinate to the characteristic landscape. Reduction of visual contrast to meet partial retention should be accomplished as soon after project completion as possible, or at a minimum, within the first year.

- Modification (M) – Management activities may visually dominate the original characteristic landscape. However, activities resulting in vegetative and landform alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Reduction in visual contrast should be accomplished in the first year, or at a minimum, should meet existing regional guidelines.

- Maximum Modification (MM) – Management activities of vegetative and landform alterations may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type. When viewed as foreground or middleground, they may not appear to completely borrow from naturally established form, line, color, or texture. Alterations may also be out of scale or contain detail which is incongruent with natural occurrences as seen in foreground or middleground. Reduction in visual contrast should be accomplished within five years.

Federal Wild and Scenic Rivers Act

A Wild and Scenic River is designated by Congress to preserve certain natural and recreational river values as defined in the 1968 Wild and Scenic Rivers Act. The Act allows for three levels of river classification: "wild", "scenic", and "recreational". Free-flowing condition and "outstandingly remarkable values" are required for a river segment to be eligible for Wild and Scenic River consideration. The degree of naturalness determines which classification is appropriate. Wild and Scenic Rivers are discussed in each of the five regions, where appropriate.

4.15.2.2 State Regulations and Policies

California Scenic Highway Program

The goal of the California Scenic Highway Program is to preserve and enhance the natural beauty of California. Therefore, the scenic highways offer a passing motorist pristine views of natural landscapes devoid of visual intrusions (e.g., buildings, unsightly land uses, noise barriers).

Public land visual resource management policies and guidance are established in order to protect and enhance public scenic resources, highways, and corridors. The California Scenic Highway Program designates travel routes (at the State and local level) that are to receive some level of protection for the scenic resources seen from these routes. Local policies addressing visual resource management objectives are typically contained in City and County General/Comprehensive Plans and Elements, and County Area Plans.

California Forest Practice Rules

The California Forest Practice Rules, Sections 912.9, 932.9 and 952.9 Cumulative Impacts Assessments Checklist identifies the procedures to assess visual effects. These include: (1) identification of any special treatment areas designated as such by the Board of Forestry because of their visual values; (2) determination of how far the proposed timber operation is from the nearest point that significant numbers of people can view the timber operation; and (3) identification of the manner in which the public identified in 1 and 2 view the proposed timber operation (i.e., from a vehicle on a public road, from a stationary public viewing point or from a pedestrian pathway).

4.15.3 SYSTEM-WIDE SETTING

Because hydroelectric generation depends on the force of running water, the Federal Energy Regulatory Commission- (FERC) licensed Lands and Watershed Lands associated with Pacific Gas and Electric Company's hydroelectric generation are located primarily in remote, mountainous areas of California that are incised by rivers and streams. Damming of these rivers has created reservoirs in mountain and canyon settings that have high scenic value and offer a variety of recreational activities. Pacific Gas and Electric Company's assets are, in some cases, located near or accessed by National, State, and County Scenic Byways.

Often, Pacific Gas and Electric Company's FERC-licensed Lands and Watershed Lands are near, abut, or are surrounded by National Forest Lands, State Park Lands, or lands owned by the Bureau of Land Management (BLM). These relatively undeveloped settings offer both active and passive recreational activities, and these landscapes are primarily used by seasonal recreational users, local residents, and people traveling through scenic corridors. In addition, Pacific Gas and Electric Company has a FERC-mandated requirement to provide the public with reasonable free access to FERC licensed areas for recreational purposes.

Over time, Pacific Gas and Electric Company's reservoirs and lands have become part of the landscape in which they are located. Some of these facilities also have historical and architectural value. Historically, except where public safety is an issue, Pacific Gas and Electric Company has allowed the public access to its land holdings, both those lands associated with hydroelectric generation and the Watershed Lands (owned by Pacific Gas and Electric Company but not associated with power generation). The provision of recreational opportunities in aesthetically pleasing locales and access to remote locations and scenic vistas are beneficial impacts of Pacific Gas and Electric Company's operation of its hydroelectric facilities.

4.15.4 REGIONAL AND LOCAL SETTING, AND REGULATORY CONTEXT

The following sections describe the aesthetic and visual features of the five regional bundles as well as specific designations or policies which apply to FERC-licensed Lands and Watershed Lands.

4.15.4.1 Shasta Regional Bundle

Regional Setting

The Shasta Regional Bundle is located in an area with high scenic values. The viewshed is dominated to the north by views of Mount Shasta. The Cascade Range runs along the eastern edge of the Central Valley, and timber-covered mountains, natural and manmade lakes, and a variety of rivers and streams characterize the section of Northern California that includes the Shasta Regional Bundle. The regional bundle is generally characterized by sparsely populated rural areas, wooded mountains, and river canyons.

Visual access in the Shasta Regional Bundle is available from major transportation routes, which include State Routes (SR) 89, 299 and 44, and minor roadways.

The visual character associated with the Shasta Regional Bundle includes such landscapes as wide, plateau-valley grasslands, open rangeland, montane-riparian, steep slopes with heavy timber growth, remote canyons and hillsides, pristine wildernesses, lakes, and streams. The elevation ranges from 300 to 400 feet, to 5,000 feet. The region is sparsely populated with little industrial or commercial development, with the exception of commercial logging.

For the purposes of impact analysis, the Shasta Regional Bundle has been divided into nine Land Areas. These areas are detailed by bundle, below.

Bundle 1: Hat Creek

Hat Creek 1 and 2 (FERC 2661)

The Hat Creek 1 and 2 project is located in the Hat Creek Valley directly east of the Pit River. The visual character of the area is dominated by Hat Creek, which flows wide and slow through this valley. A mix of Sierran, Cascade, and Great Basin habitats characterize the Hat Creek 1 and 2 project and Watershed Lands (which are interspersed between Hat Creek 1 and 2 Powerhouses), including such major plant communities as ponderosa pine forests, northern juniper woodlands, cismontane woodland, montane riparian scrub, sagebrush scrub, montane grassland, and freshwater marsh. Topography ranges from flatter valley areas with scrub oak, manzanita and grass vegetation to the wooded hillsides of the foothills of the Cascade Range. There are no State or local designated scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project. SR 89 is eligible for inclusion as a National Scenic Highway, but is not officially designated as such. Small towns within the vicinity of the project are Cassel, Johnson Park, and Burney. The area is primarily accessible from SR 89 and SR 229, the Murken Bench Road, Hat Creek Powerhouse Road, and a few National Forest Roads (see Figure 4.15-1).

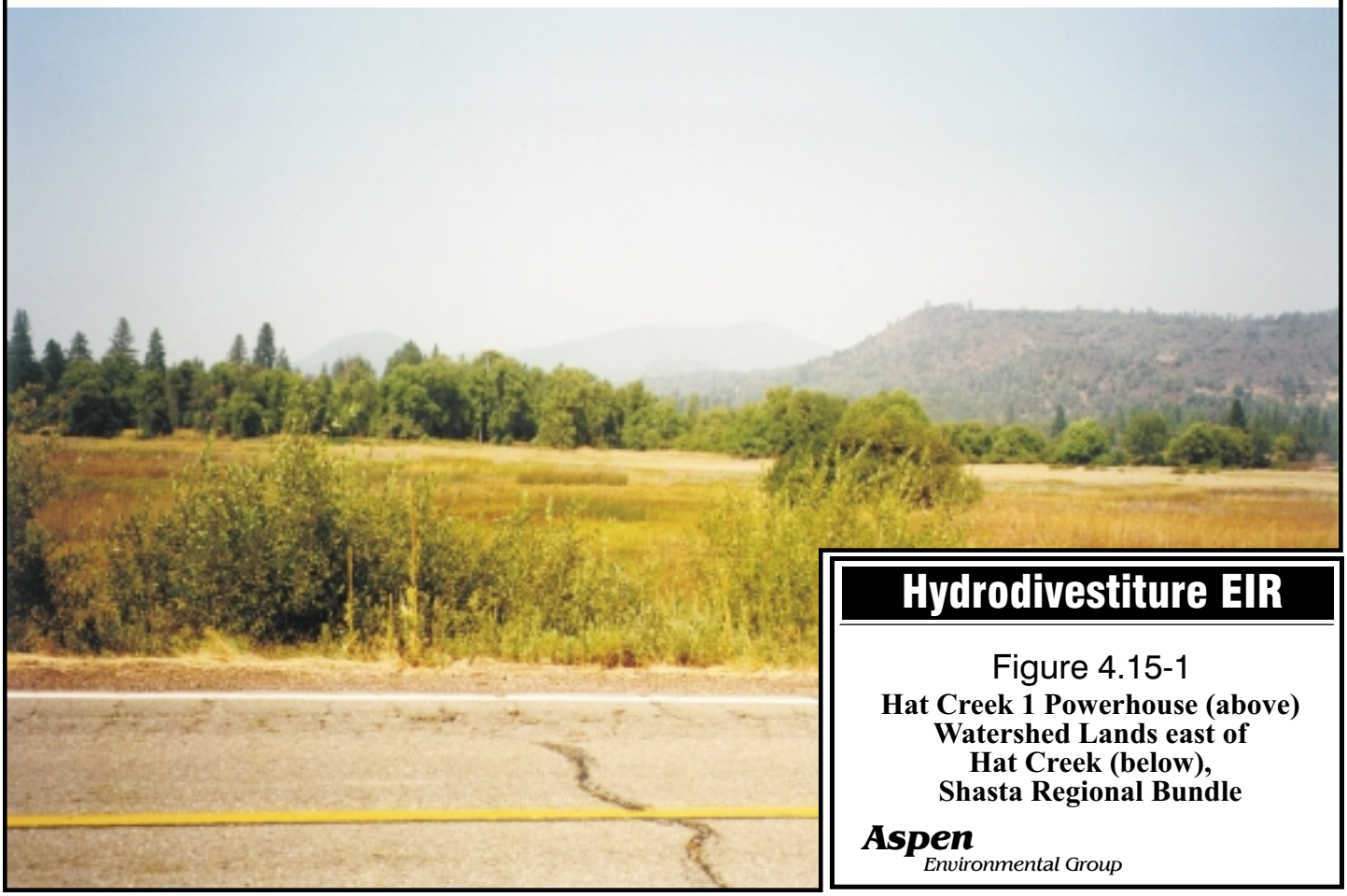

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Figure 4.15-1
**Hat Creek 1 Powerhouse (above)
Watershed Lands east of
Hat Creek (below),
Shasta Regional Bundle**

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Environmental Group

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Local Regulations and Policies. In Shasta County, SR 89 is listed as eligible for inclusion in the State Scenic Highway system, but has not been officially designated as such by the California Department of Transportation (Caltrans).

The Lassen National Forest Land and Resource Management Plan identifies this general area as the Hat Creek Management Area, which encompasses Hat Creek Valley. VQOs for the Hat Creek Management Area are as follows: Along the Pacific Crest Trail (PCT), north of the Hat Creek Rim lookout, meet a VQO of Retention in the foreground; maintain a high level of visual quality in the Hat Creek Valley Recreation Complex and within areas visible from SR 89 and SR 44; and meet a VQO of Retention along Hat Creek within one-half mile of any developed recreation site.

Bundle 2: Pit River

Pit 1 (FERC 2687)

The Pit 1 forebay is located in the Fall River Valley, which is characterized by an expanse of open rangeland with few trees. Fall River Pond, the segment of Fall River between the forebay and the Fall River weir, bisects the town of Fall River Mills, and is an important visual element in the town. Views of Fall River Mills are blocked by topography from most of the forebay shoreline areas, but are visible from the forebay dam and spillway areas (PG&E Co., 1993). The Pit 1 project is characterized by steeply sloped wooded hillsides with intervening gentle rolling terrain, covered with grass and bushy vegetation. Vegetation communities such as montane riparian, juniper, montane hardwood-conifer, blue oak-gray pine, montane chaparral, mixed chaparral, low sage, annual grassland, wet meadow, and fresh emergent wetland exist. The Watershed Lands associated with the Pit 1 project are located in two distinct groupings. Both are primarily wooded hillsides and steep slopes of the Pit River Canyon (see Figure 4.15-2). There are no State or county designated scenic highways or wild and scenic rivers in the vicinity of the project. SR 299 is eligible for State Scenic Highway Status, but is not officially designated as such. SR 299 parallels the Pit River canyon. The Pit 1 powerhouse, penstock, surge tank, and switchyard are visible at a distance from several sections of the highway. A vista point along the highway overlooks Pit River Falls (PG&E Co., 1993), south of SR 299.

McArthur Swamp, one of the Land Areas identified for the Pit 1 project, lies in the northeastern portion of Shasta County in the Fall River Valley, south of Horr Pond and Big Lake. Views from this area are of wide open space with vegetation characteristic of marsh and grasslands. Access is limited to Rat Road, which extends from the fairgrounds in McArthur to just south of Big Lake, and a road from Fall River Mills to the fishing access on Big Lake and Horr Pond. Pacific Gas and Electric Company is currently proposing to transfer this landholding to the California Waterfowl Association.

Local Regulations and Policies. SR 299 has been deemed eligible for inclusion in the State's scenic highway system, although it has not been officially designated as such by Caltrans.

Pit 3, 4, and 5 (FERC 0233)

The Pit 3, 4, and 5 project is characterized by moderate to steep slopes and heavy timber growth. The area surrounding the project is sparsely populated with residences and has no industrial or commercial development. The Pit 3 powerhouse is located on the eastern bank of the Pit River at the bottom of a steep, sparsely to moderately vegetated canyon west of Lake Britton. Other areas surrounding the project are densely to moderately forested. Near the Pit 4 and Pit 5 powerhouses, the land is pristine with some cabins and small communities, and remote canyons and hillsides. The Pit 3, 4, and 5 project area includes stands of ponderosa pine interspersed with open meadows, manzanita brush, whitethorn and deerbrush, and patches of black oak. Other vegetation near Lake Britton includes stands of conifer (Douglas fir, white fir, incense cedar, and ponderosa pine). The banks of the Pit River are lined with willow, big leaf maple, alder, and grasses and forbs. The Pit 3, 4 and 5 project Watershed Lands are generally dispersed between the Hat Creek 2 powerhouse and Pit 4 powerhouse and share the same visual characteristics described above.

Local Regulations and Policies. There are no State or county designated scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project. SR 299 and SR 89 are both eligible for inclusion in the State Scenic Highway Program, but are not officially designated as such.

The Lassen National Forest (LNF) Land and Resource Management Plan identifies the Britton Management Area as a large block of Shasta National Forest land administered by the Lassen National Forest. Lake Britton is the central landmark. LNF wishes to meet the visual quality objective of Partial Retention in the foreground of the PCT from its junction with Forest Road 11 north.

McCloud-Pit (FERC 2106)

The terrain of the McCloud-Pit project is wooded and of moderate to steep relief with deeply incised canyons (CDM, 1997a). Because of the inner gorge nature of much of the upper and lower Pit River area, it is not easily viewed from a distance, except from certain vantage points. The area surrounding the McCloud-Pit project is sparsely populated with no large-scale industrial or commercial development. Small residential communities and remote home sites are located throughout the area. There are broad ranges of vegetation in the area around lower and upper Pit River and McCloud and Iron Mountain Reservoirs; types vary from riparian vegetation to chinquapin brush fields (see Figure 4-15.2). Live and black oak stands are found throughout the area. Commercial species of Douglas fir, white fir, ponderosa pine, incense cedar, and sugar pine are found in this vicinity as well. The Watershed Lands associated with the McCloud-Pit Project are characterized by very steep slopes, minimal development, and isolated timber stands.

Local Regulations and Policies. There are no State or county designated scenic highways or designated scenic overlooks in the vicinity of the McCloud-Pit Project.

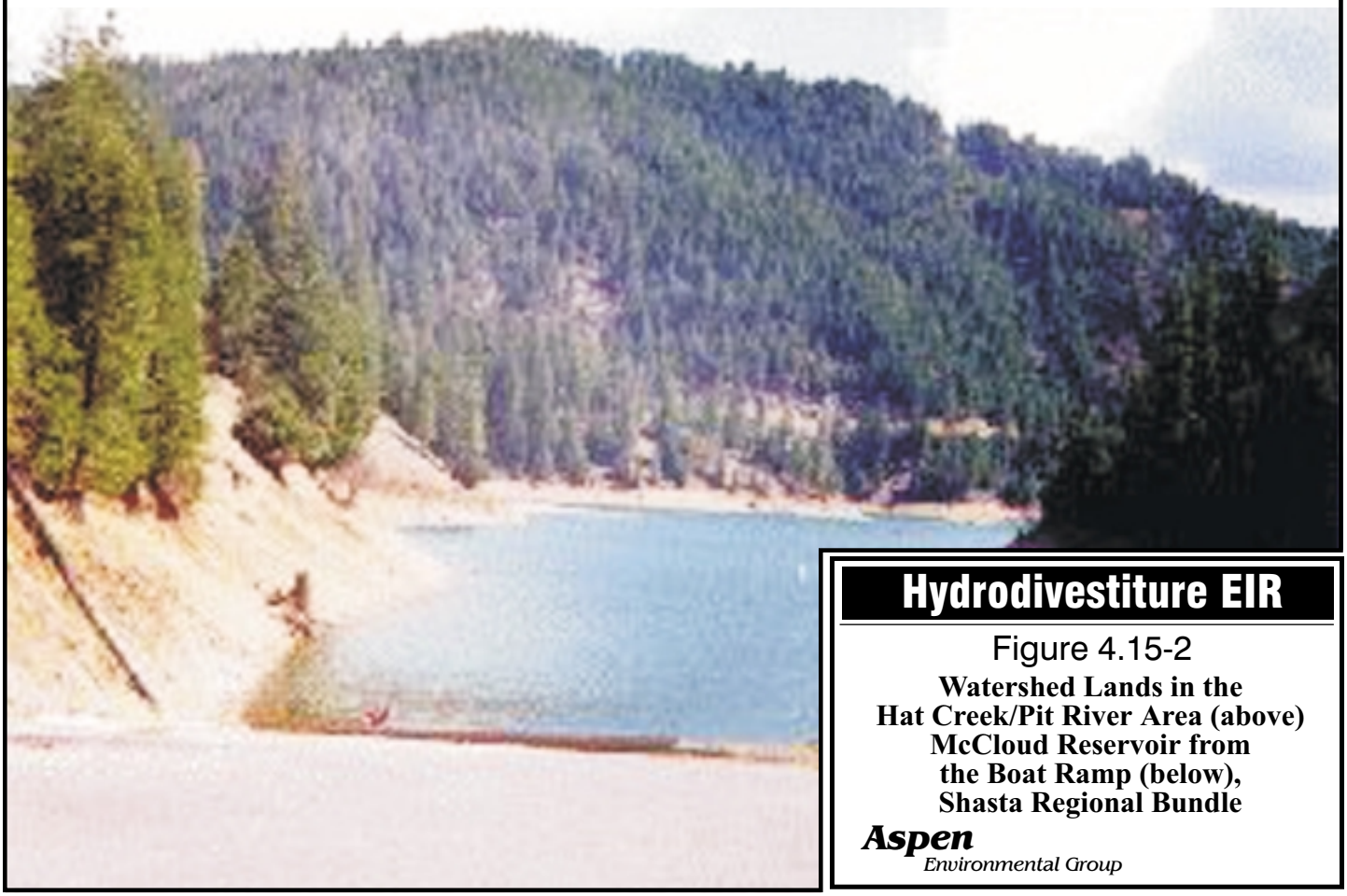

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Figure 4.15-2

Watershed Lands in the Hat Creek/Pit River Area (above) McCloud Reservoir from the Boat Ramp (below), Shasta Regional Bundle

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Bundle 3: Kilarc-Cow Creek

Kilarc-Cow Creek (FERC 0606)

The Kilarc powerhouse and forebay and watershed lands are situated in a mixed conifer forest comprised of Ponderosa pine, Douglas fir, incense cedar and California black oak. Cow Creek powerhouse and forebay terrain is characterized by oak-digger pine with sparse and scattered overstory. The Watershed Lands associated with the Kilarc-Cow Creek project are characterized by terrain and vegetation described above.

Local Regulations and Policies. There are no State or county designated wild and scenic rivers or designated scenic overlooks in the vicinity of the project. Although there are no scenic highways in the vicinity, SR 44, which provides access to the project area, has been proposed for scenic highway designation (PG&E Co., et al. 1977).

Bundle 4: Battle Creek

Battle Creek (FERC 1121)

The Watershed Lands surrounding the Battle Creek project are wooded and have moderate relief, with sparse development (CDM, 1997b). The Battle Creek project area supports mixed conifer forests and open meadows, as well as willows and emergent wetland vegetation. Access for viewing Battle Creek and associated Watershed Lands is problematic, as most of the surrounding lands are in private ownership.

Local Regulations and Policies. There are no wild and scenic rivers or designated scenic overlooks in the vicinity of the Battle Creek project. Although there are no scenic highways in the vicinity, SR 44, which provides access to the Battle Creek project area, has been proposed for scenic highway designation (PG&E Co., et al. 1977).

4.15.4.2 DeSabla Regional Bundle

This section describes the main visual features at each of Pacific Gas and Electric Company FERC projects, Watershed Lands, and the three powerhouses (Hamilton Branch, Lime Saddle, and Coal Canyon) not licensed by FERC in the DeSabla watershed region, including any State or county designated scenic vistas or overlooks, scenic highways, and wild and scenic rivers.

Regional Setting

The visual characteristics of the DeSabla Regional Bundle are numerous: snow-capped volcanic peaks, steep forested hillsides, incised river valleys, high mountain meadows, a pristine wilderness area, and a variety of lakes and streams. SR 70, which runs along the North Fork Feather River in the DeSabla Regional Bundle, has been designated as a Scenic Byway by the National Forest Scenic Byway Program. Physical access to these features is primarily along well-maintained State and

county roads, with the exception of Three Lakes and Milk Ranch Creek, which have four-wheel drive access only. Visual access varies according to the elevation, topography and vegetation. Views are restricted along SR 70 to the canyon walls and river within the Feather River Canyon.

The topography in the Plumas National Forest (PNF) area ranges from elevations of 900 feet in the western foothills to over 8,000 feet in the mountains. The North and Middle Forks of the Feather River have carved deep canyons, with narrow plateaus of moderate relief located between the canyons. The eastside of the PNF has forested ranges and intervening valleys.

Designated aesthetic resources associated with the region include State Scenic SR 70 and the Middle Fork Feather River, which is a Federally designated wild and scenic river. In addition, there are several USFS-designated scenic viewpoints near Lake Almanor and one located near the confluence of the Middle Fork with Lake Oroville.

For the purposes of impact analysis, the DeSabla Regional Bundle has been divided into 13 Land Areas. These areas are detailed by bundle, below.

Local Regulations and Policies

Plumas National Forest Land and Resource Management Plan

Management prescriptions for forest lands are composed of standards and guidelines to attain stated goals and objectives for the future of the forest. Standards and guidelines for prescription areas that pertain to specific Project Lands are detailed below. In addition, Plumas National Forest has goals to restore high visual quality to lands visible from high-use areas and to maintain visual quality along the PCT. Plumas National Forest Recreation Area Prescription areas include: Bucks Lake, Butt Valley Reservoir, and North Fork Feather River (USFS, 1988).

Bundle 5: Hamilton Branch

Hamilton Branch Project (non-FERC)

The Hamilton Branch project is generally located on the west flank of the Sierra Nevada, near the intersection of SR 147 and County Road A13. It is characterized by an incised stream canyon lying north of SR 147, with rugged topography and coniferous vegetation. Just south and east of Westwood, California, Mountain Meadows Reservoir, storage for the Hamilton Branch Project, lies upon lava flows from the Modoc Plateau. The reservoir is shallow and is surrounded by wetland marsh, willow channel, and meadow areas. A mixture of coniferous forest and riparian vegetation characterize the area between the reservoir and the Hamilton Branch Powerhouse (located at the north end of Lake Almanor). General access to the area is via SR 39, SR 147, and county roads.

Local Regulations and Policies. The Hamilton Branch project is not within the boundaries of Plumas or Lassen National Forest. Policies from the Lassen County General Plan, Westwood

Planning Area, would be applicable to this area. There are no State or county designated wild and scenic rivers, or designated scenic overlooks in the vicinity. SR 147 is designated a County Scenic Byway.

Bundle 6: Upper North Fork Feather River

Upper North Fork Feather River (FERC 2105)

The aesthetic character of the Upper North Fork Feather River (NFFR) project is dominated by the NFFR Canyon and surrounding forested mountains. Non-natural features include Pacific Gas and Electric Company hydroelectric facilities, Oak Flat and Caribou Powerhouses, associated dams, reservoirs and penstocks, the Caribou-Big Bend transmission line, recreation facilities, and a few scattered commercial and residential structures (PG&E Co., 1987). Visibility of non-natural features varies greatly depending on topography, vegetation, and distance (Krause, et al., 1997). See Figure 4.15-3 Caribou Powerhouse.

Lake Almanor and Butt Valley Reservoir, both NFFR project reservoirs, are considered key recreation resources for the NFFR project.

Lake Almanor has experienced heavy development over the years. Private lodges and boat ramps, several gated summer residential communities, and other private homes share the lakefront with Pacific Gas and Electric Company recreational facilities. The lake is situated in a high mountain meadow with vistas of the surrounding mountains. From the southwest shore of Lake Almanor, views east across the lake are of high bluffs. See Figure 4.15-3 Lake Almanor from Southwest Shore**.** While not pristine in nature, due to the amount of development, this portion of Plumas County is both attractive and very easily accessed.

Butt Valley Reservoir also offers camping, boating, swimming, and fishing opportunities. The southernmost portion of the reservoir, just above the dam, contains innumerable snags. Views from the road along the east shore of the reservoir are restricted to wooded mountain slopes surrounding the reservoir and of the reservoir itself.

Views of the NFFR canyon in this area are restricted by the steep nature of the terrain. Driving along Caribou Road, which connects SR 70 with Butt Valley Reservoir, scenic views are mainly of the river and the steep slopes. Certain corners on the road provide a more open vista, offering distant viewing of the steep slopes of the NFFR canyon. SR 70 winds along the NFFR southwest to Oroville. The river changes character many times during this descent, due to the presence of Pacific Gas and Electric Company reservoirs and powerhouses. River characteristics range from narrow whitewater cascading down and around the large granite boulders along the banks and in the river, to placid reservoirs above the dams.

Chester, located on the northwest shore of Lake Almanor, and Westwood, located on the northern shore of Mountain Meadows Reservoir, are the largest population centers in the project vicinity.

Chester and Westwood are both located in high mountain meadow terrain, offering views of the surrounding Cascades, wetlands and marsh, and the developments around Lake Almanor. Belden is located on the south side of the NFFR where Yellow Creek enters from the north. Looking north, east, and west from Belden, viewsheds include the NFFR, its confluence with Yellow Creek, the river canyon, and the steep, wooded hills of the NFFR Canyon.

The Watershed Lands associated with the Upper North Fork Feather River are generally located adjacent to Lake Almanor and between the Oak Flat and Belden powerhouses, and share the characteristics of those areas. A few parcels border the southern tip of Butt Valley Reservoir, and the southwest corner of one parcel abuts the eastern shore of the reservoir, north of Cool Springs campground.

Local Regulations and Policies. There are no wild and scenic rivers in the vicinity of the project. SR 70 is designated as a Scenic Byway by the National Forest Scenic Byway Program. The Almanor Scenic Overlook is located on SR 147 along the east side of Lake Almanor (PG&E Co., Building and Land Services, 1998), and the Richbar Overlook is located on SR 70 east of the Belden Powerhouse. The Plumas National Forest has assigned a VQO of Retention to the landscape visible from Caribou Road and SR 70 in the vicinity of Belden Powerhouse and up to three-quarters of a mile away. This VQO requires all alterations to the landscape to not be visually evident (PG&E Co., 1987).

The Lassen National Forest Land and Resource Management Plan identifies the following Management Areas in the project vicinity, and their applicable visual quality objectives are detailed below.

Prattville Management Area includes the southwest shore of Lake Almanor. It is isolated by private land on three sides and by Lake Almanor on the east. In places, strips of shoreline are privately owned. LNF has VQOs of Retention between Lake Almanor and SR 89.

Feather River Management Area lies south of Lassen Volcanic National Park. The headwaters of the NFFR (Lake Almanor south), Bunchgrass Creek, and the north and south forks of Rice Creek join at Feather River Meadows to form the river. Several large sections of private land are present. VQOs for this management area are to maintain visual quality along the PCT.

Lake Almanor Planning Area, identified in the Plumas County General Plan, is governed by the same standards mentioned above, with the addition of restrictions on the amount and number of infill developments within the lakeshore area, specifically including boat ramps and breakwaters. The land use protection measures include maintaining recreation and residential uses, prohibiting off-premise advertising signs, and utilizing density transfers where possible to enhance natural shoreline appearance.

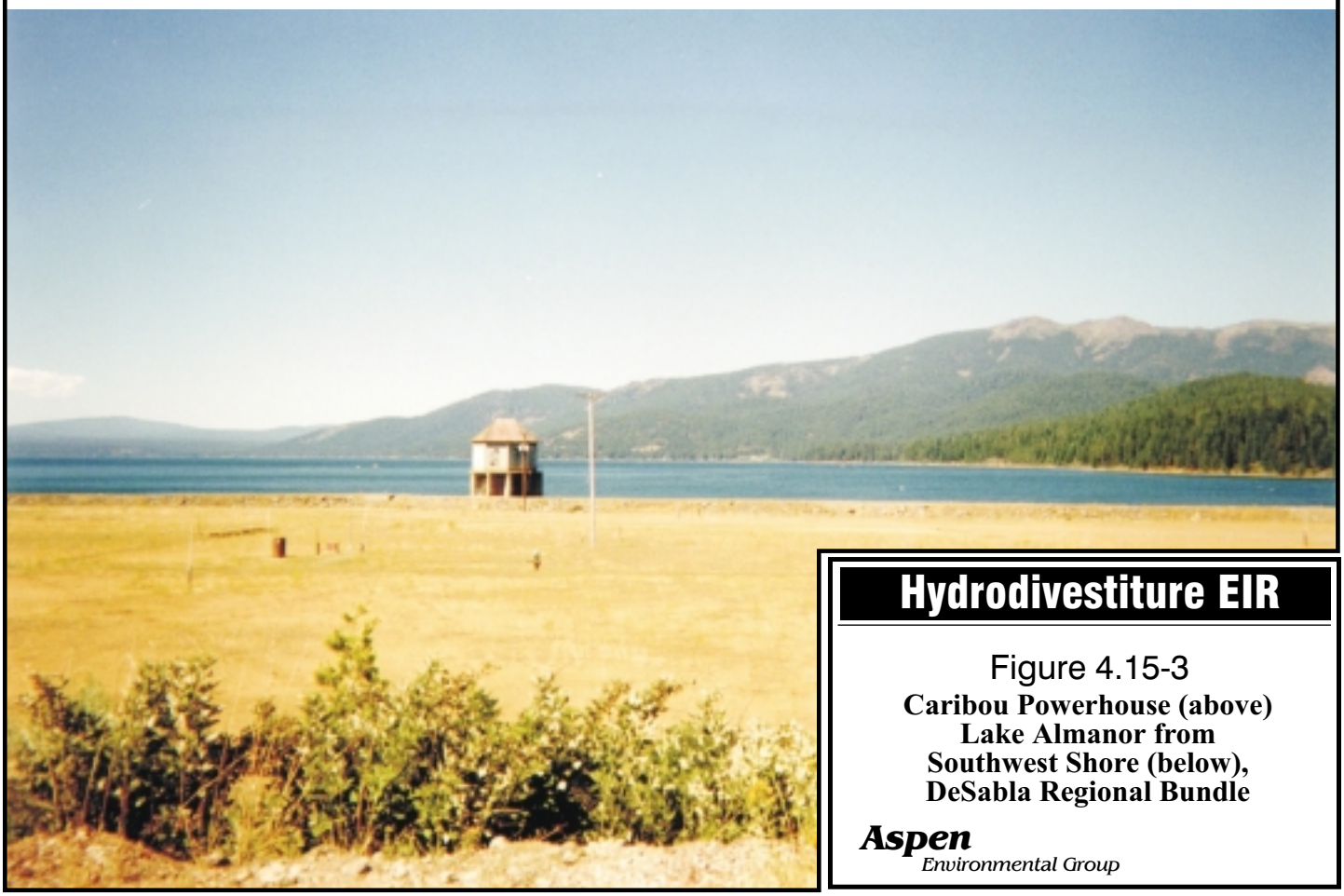

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Figure 4.15-3

**Caribou Powerhouse (above)
Lake Almanor from
Southwest Shore (below),
DeSabla Regional Bundle**

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Rock Creek-Cresta (FERC 1962)

The aesthetic character of the Rock Creek-Cresta project area is dominated by the NFFR canyon, which contains the Feather River, Union Pacific Railroad, SR 70 (designated a National Forest Scenic Byway), and hydroelectric generating and transmission facilities (see Figure 4.15-4). The character of the river changes in relation to Pacific Gas and Electric Company's hydroelectric facilities. Narrow rapids and granite outcroppings change to reservoir waters above the dams. The canyon walls vary from solid rock devoid of vegetation to dry exposed slopes containing brush and ponderosa pine, to wet sites containing Douglas fir. Numerous streams cascade down the canyon walls into the river, some creating waterfalls. All of the streams are lined with riparian vegetation, as are the river and reservoir banks in most places, although the amount of vegetation is limited by the steep and rocky conditions. The narrowness of the canyon floor has limited development to the highway and railroad, a few scattered dwellings, resorts, stores, and hydroelectric facilities. Rural clusters such as Tobin and Storrie are situated along the banks of the river where the canyon widens enough to accommodate houses and other structures. As a result, much of the canyon remains uncluttered by signs, billboards, or structures (PG&E Co., 1998).

Humbug Valley, approximately 2,300 acres of mountain meadow, is considered a part of the Rock Creek-Cresta project, although it is closer in proximity and character to the NFFR project. Humbug Valley can be accessed from SR 89 along the west shore of Lake Almanor, via Humbug Road (dirt) approximately eight miles from its intersection with SR 89. The viewshed is a wide, open, unpopulated meadow surrounded by sloped wooded hillsides. Yellow Creek, which bisects the valley, is evident from the swath of willows growing along either side of it. Since the 1970s, exclusionary fencing has been placed along Yellow Creek in Humbug Valley to prevent its degradation by grazing cattle. See Figure 4.15-4 Humbug Valley.

Local Regulations and Policies. The Lassen National Forest Land and Resource Management Plan has identified one Planning Area in the region of this project. Feather River Canyon Planning Area contains standards for land development include locating transmission and utility lines where they may be concealed by vegetation or topographical features, and restricting on-premise signs to six square feet as well as prohibiting them to exceed the height of any on-site building roof line.

The Plumas County General Plan has identified one Planning Area in the region of this project. Humbug Valley Planning Area has standards for land development, which include locating transmission and utility lines where they may be concealed by vegetation or topographical features, and restricting on-premise signs to six square feet as well as prohibiting them to exceed the height of any on-site building roof line. Land use protection measures include maintaining agricultural, resource production, and rural residential uses; utilizing density transfer to maintain the open space values and to locate rural residential densities away from scenic areas, and prohibiting off-premise advertising signs.

There are no wild and scenic rivers or designated scenic overlooks in the vicinity of the project. SR 70 is designated as a Scenic Byway as a part of the National Forest Scenic Byway Program.

Poe (FERC 2107)

The aesthetic character of the Poe project area is dominated by the NFFR Canyon, which contains the Feather River, Union Pacific Railroad, SR 70, and hydroelectric generating and transmission facilities. Please refer to FERC 2105 and FERC 1962 for a general description of the canyon. The only project feature generally visible from SR 70 is Poe Dam and Reservoir. The Poe Powerhouse is located down canyon and away from views along SR 70.

Land uses, topography, and vegetation values for the Poe Project are similar in nature to those discussed above for the Rock Creek-Cresta Project. The Poe Project area is closer to the population center of Oroville and major recreational facilities at Lake Oroville State Recreation Area. On Pacific Gas and Electric Company's Watershed Lands associated with this project, some recreational areas are accessible across steep terrain.

Local Regulations and Policies. The Plumas National Forest Land and Resource Management Plan identifies the North Fork Management Area as located on both sides of the NFFR Canyon from Elephant Butte to the west, upstream to Yellow Creek on the north side of the river and to Mt. Pleasant on the south side. Visual resource goals for this area include maintaining pleasing visual corridors, and minimizing visual impacts of electric transmission lines and the Union Pacific mainline. In addition, the VQO of Retention is set for the areas along Yellow Creek (Plumas National Forest, 1988).

There are no wild and scenic rivers or designated scenic overlooks in the vicinity of the project. SR 70 is designated as a Scenic Byway by the National Forest Scenic Byway Program.

Bundle 7: Bucks Creek

Bucks Creek (FERC 0619)

The visual character of the Bucks Creek Project area results from natural topography and vegetation and from alterations due to logging and hydroelectric generation. The three man-made reservoirs in the area are Bucks Lake, Lower Bucks Lake, and Grizzly Forebay (PG&E Co., 1981). Bucks Lake is easily accessed by the Quincy-Oroville Highway from Oroville, and Bucks Lake Road from Quincy, a two-lane paved county road. At Bucks Lake and Lower Bucks Lake, the mountain terrain widens to a valley cut through by streams, and containing marsh and grassland areas. Bucks Valley is largely surrounded by forests of pine and fir. The area is well known to Plumas, Lassen, and Butte county residents for its opportunities for fishing, swimming, hiking, boating, and camping. At Three Lakes Reservoir, the terrain is rough and steep. The PCT is accessible from the USFS trailhead near Three Lakes. The Bucks Lake Wilderness is located immediately north and east of the Bucks Creek project area.

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Figure 4.15-4

**Humbug Valley (above)
Feather River Canyon
below Belden Dam (below),
DeSabla Regional Bundle**

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Some Watershed Lands associated with the Bucks Creek project are located along the steep slopes of the Feather River Canyon, and are difficult to access. Other Watershed Lands surround Bucks Lake. There are no wild and scenic rivers in the vicinity of the project.

Local Regulations and Policies. The Plumas National Forest Land and Resource Management Plan identifies the Grizzly Dome Management Area, which extends southwesterly from Lower Bucks Lake to the NFFR. Visual resource goals for this area include maintaining a pleasing visual corridor and minimizing the visual impact of transmission lines and hydroelectric facilities.

The Bucks Management Area, also identified in the Plumas National Forest Land and Resource Management Plan, lies 15 miles west of Quincy. Visual resource goals for this area include maintaining pleasing visual corridors while allowing variances for the USFS administrative site at Lower Bucks Lake. Pacific Gas & Electric Company's hydroelectric project facilities that are located on National Forest Service lands are required to blend with the immediate background in accordance with an existing Memorandum of Understanding and Special Use Permit issued by the USFS (USFS, 1998 and USFS, 1991a).

SR 70 is designated as a Scenic Byway by the National Forest Scenic Byway Program, and a Scenic Overlook is located on Bucks Lake Road (FERC, 1993).

Bundle 8: Butte Creek

DeSabla-Centerville (FERC 0803)

The DeSabla-Centerville project landscape is made up of contrasting topography, a variety of vegetation types, and mountain reservoirs and lakes. There are lava and granite formations, stands of mixed conifers, open meadows, and brush in some areas (PG&E Co., 1982). The visual character of the land has been altered because of timber harvests and gold mining activities. Philbrook Reservoir is the only major recreation destination in the DeSabla-Centerville project. Accessed from the Humboldt Summit Road, Philbrook Reservoir is at an elevation of 5,600 feet. Views along the road to Philbrook Reservoir are of the Cascade Mountain Range. Once into the reservoir area, views are restricted to the lake and its wooded hillsides and summer homes along the south shore. The Watershed Lands associated with the DeSabla Centerville project are along the steep slopes surrounding Butte Creek, which is characterized by table-topped lava bluffs, scrubby vegetation, and isolated scattered residences.

Local Regulations and Policies. Philbrook Management Area, as identified by the Lassen National Forest Land and Resource Management Plan, is located along the south-central Forest boundary. No VQOs exist for this area.

There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project.

Lime Saddle (non-FERC jurisdictional)

The Lime Saddle Powerhouse is located on the West Branch Feather River in Butte County and is accessed via Pentz Road approximately 15 miles southeast of Chico. The area surrounding the powerhouse is sparsely populated with scattered development. Areas surrounding the powerhouse are wooded and have moderate to steep relief. Waterways, including tributaries to the West Branch Feather River, dissect the system. Small residential communities and isolated residential properties are located throughout the area (CDM, 1997c). There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the powerhouse.

Coal Canyon (non-FERC)

The Coal Canyon Powerhouse is located east of the intersection of SR 70 and SR 191 in Butte County and is accessed via Coal Canyon Road about seven miles northwest of Oroville. The area surrounding the powerhouse is sparsely populated. The area in the immediate vicinity of the powerhouse is flat valley land with manzanita and scrub oak vegetation. Coal Canyon itself cuts into the side of Table Mountain, a popular spring wildflower viewing area. There are olive groves and ranch lands in the vicinity. No major waterways are located in the vicinity of the powerhouse (CDM, 1997d).

Watershed Lands in the vicinity of the Lime Saddle and Coal Canyon projects are similar in topography, vegetation, and degree of development as described above.

Local Regulations and Policies. The Butte County General Plan contains no specific local regulations or policies that would pertain to the Lime Saddle and Coal Canyon projects. Neither of these areas are located within National Forest boundaries. There are no wild and scenic rivers or designated scenic overlooks in the vicinity of the powerhouse.

4.15.4.3 Drum Regional Bundle

Regional Setting

The Drum Regional Bundle extends nearly 200 miles along the Sierra Nevada's western slopes and ranges in elevation from 300 to 8,000 feet. The Drum Regional Bundle is unique in that it is made up of two geographically separated regions – the larger one located in the Sierra Nevada foothills, and a smaller region in the coastal range. Pacific Gas and Electric Company operates four FERC-licensed projects in the region, which have been divided into four bundles. The four projects are located on a combination of private and public lands that span seven counties – El Dorado, Placer, Nevada, Yuba, Lake, Mendocino, and Humboldt – three national forests – Tahoe, Mendocino, and El Dorado National Forests – and other public lands managed by the Bureau of Land Management. The majority of FERC Licensed Lands and Watershed Lands are located in remote, mountainous areas where the natural scenic resources are highly valued by recreational users and local residents. In addition to the Pacific Gas and Electric Company property within FERC project boundaries,

Pacific Gas and Electric Company owns a number of parcels near or adjacent to the FERC projects that have been included in the proposed auction. For purposes of impacts analysis, the Drum Regional Bundle has been divided into fourteen Land Areas. These areas are detailed by bundle, below.

Regional and Local Regulations and Policies

Visual resources in the Drum Regional Bundle are regulated through FERC license conditions, BLM regulations and leases, National Forest Land and Resource Management Plans and leases, and county General Plans. The USFS plans designate VQOs for different areas of the forest based on existing and desired land use management practices and recreational opportunities.

Bundle 9: North Yuba River

Narrows (FERC 1403)

Rocky exposures characterize the river bed and canyon walls in the vicinity of the Narrows Powerhouse. The steep slopes are devoid of vegetation in many areas; in other areas, where thin soils exist, herbaceous vegetation is supported. The substation is just below the top of a hill in a grass clearing surrounded by a dense oak woodland. Elevations of the Narrows FERC License Lands and Watershed Lands range from 332 to 527 feet. Due to topography and vegetation, these Lands are not visible from nearby public areas. However, Englebright Lake, which the Narrows Dam supports, offers opportunities for public viewing of limited panoramas, which include the Lake, shoreline, and Sierra Foothills. Moored along the shore in this area, are many resident houseboats. There are several boat-in only camping facilities along the 24 miles of shoreline. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks.

Bundle 10: Potter Valley

Potter Valley (FERC 0077)

The Potter Valley Project Lands and Watershed Lands are located in the central portion of the North Coast Range at an elevation of approximately 1,105 feet. Vegetation in the surrounding area consists of ponderosa and digger pine, and black oak with madrone, maples, and willows growing on moist sites. The visual character of the Potter Valley community consists of gently rolling hills, vineyards, and scattered rural residences on one-acre or larger parcels. Refer to Figure 4.15-5, Potter Valley Landscape. The Potter Valley Project is located on the Eel River and the East Fork of the Russian River. There are no scenic highways or designated scenic overlooks. A State Wild and Recreational River segment is located on the South Fork Eel River. The portion of the Eel River that has been designated by the state as being wild and recreational does not fall within the Potter Valley FERC project boundary. Therefore, the project is not subject to any of the wild and scenic regulations.

Watershed Lands include Lake Pillsbury at an elevation of 1,807 feet and Scott Dam surrounded by four government campgrounds. Several, well-developed trails, picnic areas, day-use areas and boat launching facilities offer extensive, scenic, public viewing of the lake and surrounding mountains. Two of these mountains, Sanhedrin and Hull, are often snow-capped in winter months, with elevations of 6,175 and 6,873 feet, respectively. Most of the Watershed Lands are surrounded by the Mendocino National Forest. The Van Arsdale Reservoir is located north of Eel River Road adjacent to Ridgeway Highway and southwest of Lake Pillsbury. Coniferous trees densely populate the majority of both areas. Sporadic occurrences of grassland meadows, oak and madrone trees, and rocky, Franciscan Complex outcrops are also exhibited in the landscape. All of these lands and water bodies are within public view.

Bundle 11: South Yuba River

Drum-Spaulding (FERC 2310)

The Drum-Spaulding Project Lands and Watershed Lands extend from the crest of the central Sierra Nevada to the outskirts of Auburn, California. Elevations range from about 8,000 feet above sea level at White Rock Reservoir to about 300 feet above sea level at the Newcastle Powerhouse on the shoreline of Folsom Reservoir (a non-project reservoir). Topography is generally steep at higher elevations and gently rolling at lower elevations.

Vegetation in the vicinity of the project varies considerably, making the visual character of the Watershed Lands complex. Common vegetation in the lower elevations include grassland intermingled with various scrub oaks and chaparral. As the elevation increases to the east, the vegetation includes numerous types of shrubs and trees, both evergreen and deciduous. At the highest elevations, the vegetation is limited to the hardiest of shrubs and trees, including white fir, ponderosa pine, and Jeffrey pine. In some locations, no vegetation will grow.

Some of the most accessible campgrounds in the area include sites at Lindsey Lake, Carr Lake, Lodgepole, Indian Springs, Fuller Lake, Lake Spaulding, Jackson Creek, Canyon Creek, and Grouse Ridge. Some of the most dominant mountains of the area include Black, Red, Cisco Butte, Fall Creek, Old Man, Clyde, Red Hill, Bowman, and Haystack. There is one designated, scenic viewpoint at Emigrant Gap and one designated picnic area at Bear Valley. The visually majestic qualities of these facilities and features draw many visitors to the area every year (USFS, 1997). Lake Spaulding is visible from I-80. In addition, SR 20 and SR 89 provide access to many of the project's more heavily used facilities. The backcountry areas may be reached using both county and USFS roads.

SR 20 is designated as a scenic highway, and SR 20 and I-80 have designated scenic overlooks in the vicinity of the project. A portion of the Drum-Spaulding project is on a tributary to a Wild and Scenic segment of the North Fork American River. Since the project is located on a tributary stream, it is not subject to any of the Wild and Scenic regulations.

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Figure 4.15-5

Potter Valley Landscape, Drum Regional Bundle

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Most of the FERC License Lands and Watershed Lands lie within the Nevada City Ranger District of the Tahoe National Forest. This bundle has many lakes, streams, and forest lands that contribute to scenic quality and visual resources.

Bundle 12: Chili Bar

Chili Bar (FERC 2155)

The Chili Bar Project and Watershed Lands are located east of State Highway 193, approximately three miles north of Placerville, California at elevations ranging from 940 to 996 feet along the South Fork American River. The Chili Bar Powerhouse, Chili Bar Reservoir, and penstock are not visible from State Highway 193, nor are they accessible to the public. The area surrounding the project is sparsely populated with scattered development (See Section 4.1 Land Use). The area closest to Chili Bar where the river meets Ladies Canyon and Big Canyon has some structures. There are only five structures located near the American River Powerhouse. Several intermittent streams, including White Rock Creek, Ladies Canyon, Dark Canyon, and Light Canyon, flow to the Chili Bar reservoir. Coniferous trees dominate the vegetation in the area, but significant occurrences of oaks and sporadic grass meadows drape the steep topography as well. The South Fork American River, below Chili Bar Reservoir, is a primary attraction for many visitors to white-water raft and enjoy the beauty of the vegetation and spectacular gorges.

There are no scenic highways, wild and scenic rivers, or designated scenic overlooks.

El Dorado National Forest is north, east, and southeast of the Chili Bar Lands. Fragmented parcels, owned by the BLM, surround the Chili Bar Lands (USFS, 1997).

4.15.4.4 Motherlode Regional Bundle

Regional Setting

The Motherlode Regional Bundle extends nearly 200 miles along the Sierra Nevada's western slopes and ranges in elevation from 335 to 8,000 feet. Pacific Gas and Electric Company operates four FERC licensed projects in the region, which have been divided into two bundles. The four projects are located on a combination of private and public lands that span nine counties – Merced, Mariposa, Tuolumne, Calaveras, Amador, Alpine, El Dorado, Lake, and Mendocino – two national forests – Eldorado National Forest and Stanislaus National Forest – and other public lands managed by the BLM. The majority of project facilities are located in remote, mountainous areas (with elevations ranging from 4,000 to 8,000 feet) where the natural scenic resources are highly valued by recreational users and local residents. In addition to the Pacific Gas and Electric Company property within FERC project boundaries, Pacific Gas and Electric Company owns a number of private parcels near or adjacent to the FERC projects that have been included in the proposed auction (exclusive of lands purchased for transmission right-of-way). For purpose of

impact analysis the Motherlode Regional Bundle has been divided into eight Land Areas. These are detailed by bundle, below.

Regional and Local Regulations and Policies

Visual resources in the Motherlode Regional Bundle are regulated through FERC license conditions, BLM regulations and leases, National Forest Land and Resource Management Plans and leases, and county General Plans. The USFS plans designate VQOs for different areas of the forest based on existing and desired land use management practices and recreational opportunities.

Bundle 13: Mokelumne River

Mokelumne River (FERC 0137)

The Mokelumne River Project and Watershed Lands extend over a significant change in elevation and aesthetic character, from the Upper Blue Lakes alpine scenery (at an elevation of 8,000 feet) to the grass/chaparral covered foothills of the Lake Tabeaud/Electra area (at an elevation of 2,000 feet). The area is surrounded by the Eldorado National Forest boundaries. In the upper basin of the Mokelumne River project, the Eldorado National Forest has established VQOs of Retention and Partial Retention. The upper lake areas, Blue Lakes and Bear Lakes, are designated as Retention or Partial Retention. The shoreline of Salt Springs Reservoir and the Mokelumne River Canyon downstream to the Mokelumne Campground, have also been designated as Retention. These designations attest to the aesthetic beauty of much of the upper project area and serve to protect areas of the Eldorado National Forest from activities that would detract from that beauty.

The overall scenic quality of the entire area is evident from the fact that SR 88, a National Scenic Byway and California Scenic Highway, parallels the project to the northwest. Portions of the project are visible from SR 88, including lower Bear River Reservoir. Picnic areas and campgrounds at each major project water storage facility along the Mokelumne River provide the majority of the natural resource viewing potential. Refer to Figure 4.15-6, Bear River Campground. Major project facilities, such as powerhouses and penstocks, are either not visible from recreation sites or are painted to blend with the natural landscape colors. Refer to Figure 4.15-6, Tiger Creek Powerhouse. Most all of the powerhouses within this bundle are muted in color to blend with the natural landscape. The single exception is the Electra penstock that, with its silver metallic finish, stands out against the backdrop of the mountainside. Watershed lands include a number of single-story attached and detached homes located close to the Powerhouse. Refer to Figure 4.15-6, Tiger Creek Powerhouse residences. These residences retain partial views of the Tiger Creek Powerhouse and associated facilities.

The Tiger Creek Hydro Service Center is located adjacent to the Tiger Creek Powerhouse within the Mokelumne River FERC License Lands boundary. This area is wooded, with moderate to high relief. Small streams including Tiger, Deer, East Panther, West Panther, and Beaver creeks and the Bear and Mokelumne rivers dissect the area.

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Figure 4.15-6
**Bear River Campground (above)
Tiger Creek Powerhouse
Residences (below),
Motherlode Regional Bundle**

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There are no wild and scenic rivers or designated scenic overlooks in the vicinity of the service center. The Tiger Creek Hydro Service Center is not visible from SR 88.

Bundle 14: Stanislaus River

Spring Gap-Stanislaus (FERC 2130)

The Spring Gap-Stanislaus Project and Watershed Lands, located within the Stanislaus National Forest, are characterized by high mountains near Relief Reservoir at an elevation of 7,226 mean sea level (msl), which is near the crest of the Sierra Nevada, and canyon topography dominated by the Stanislaus River. Granitic outcroppings and pine forests characterize the upper portions of the project. At lower elevations, oaks and digger pines are surrounded by open patches of grassland. The area surrounding the project is sparsely populated with some cabins and small communities located in the canyons. SR 108 is a trans-Sierra access route, located on the south side of the Stanislaus River.

Due to topography and vegetation, many of the Spring Gap-Stanislaus FERC License Lands and Watershed Lands are not visible from nearby public areas. However, Strawberry Reservoir (also known as Pinecrest Lake) is ringed by summer homes and is a popular recreation area along State Highway 108. Beardsley Lake attracts recreational visitors with its picnic areas and boat access. Roads and recreational opportunities allow for public viewing of the lake. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project.

Phoenix (FERC 1061)

Lyons Reservoir Project and Watershed Lands, located within the Stanislaus National Forest, are characterized by brush fields, digger pine, oak and ponderosa pine up to the edge of the Lyons Reservoir and Dam at an elevation of approximately 4,275 feet. The riparian vegetation along Phoenix Creek creates an area of high scenic quality.

The Phoenix FERC License Lands and Watershed Lands are located in a secluded oak woodland area and are not visible from nearby public areas. However, a campground and jeep trail exists south of the Lyons Reservoir offering full views of the reservoir. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project.

Bundle 15: Merced River

Merced Falls (FERC 2467)

The Merced Falls Project and Watershed Lands is surrounded by open grassland with woody vegetation (oak, cottonwood, willow, and alder) lining the riverbank. Outcroppings of vertical slate and shale are common in the area, and they become more dominant at slightly higher elevations east of Merced Falls Reservoir.

The Merced Falls Diversion Dam is a 1,679-foot-long, 38-foot high concrete gravity dam, which creates the Merced Falls Reservoir. An abandoned fish ladder is also associated with the dam. The reservoir, also known as Lake McSwain, and associated project facilities are visible from nearby Lake McClure Road, Merced Falls Road, and Hornitos Road. The portion of the Merced River that has been designated as being wild and scenic does not fall within the Merced Falls FERC License Lands boundary; therefore, the project is not subject to any of the wild and scenic regulations. There are no watershed lands associated with Merced Falls.

4.15.4.5 Kings Crane-Helms Regional Bundle

Regional Setting

The Kings Crane-Helms Regional Bundle is located in the southern portion of the Sierra Nevada east of the cities of Merced, Fresno, and Bakersfield. Pacific Gas and Electric Company operates seven FERC-licensed projects in the region, which have been divided into five bundles. The seven projects are located on a combination of private and public lands that span four counties — Fresno, Kern, Madera, and Tulare — two national forests — Sierra National Forest and Sequoia National Forest – and other public lands managed by the BLM. The majority of project facilities are located in remote, mountainous areas where the natural scenic resources attract recreational users and local residents. In addition to the Pacific Gas and Electric Company property within FERC project boundaries, Pacific Gas and Electric Company owns a number of private parcels near or adjacent to the FERC projects that have been included in the proposed auction. For purposes of impact analysis, the Kings Crane-Helms Regional bundle has been divided into ten Land Areas. These areas are detailed by Bundle, below.

Local and Regional Regulations and Policies

Visual resources in the Kings Crane-Helms Watershed Region are regulated through FERC license conditions, Bureau of Land Management regulations and leases, National Forest Land and Resource Management Plans and leases, and county General Plans. The Forest Service (FS) plans designate Visual Quality Objectives (VQO) for different areas of the forest based on existing and desired land use management practices and recreational opportunities.

Bundle 16: Crane Valley

Crane Valley (FERC 1354)

The Crane Valley Project Lands and Watershed Lands extend from Chilkoot Reservoir (at an elevation of 7,497 feet) approximately eight miles to Bass Lake, and then to the A.G. Wishon Powerhouse (at an elevation of 1,003 feet) approximately 13 miles downstream of Bass Lake.

Chilkoot Lake/Reservoir, located in the high Sierra, is a remote, shallow pond which stores water diverted from Chiquito Creek. Water from the reservoir, which is drawn down completely by mid-summer, flows to Bass Lake. Chilkoot Lake is located at an elevation 7,497 feet in a mountainous

area that supports a sierran mixed conifer forest interrupted by exposed granite. The area around the lake is classified general forest. Access to the Chilkoot Reservoir is by a secondary dirt road.

Bass Lake, the most popular recreation area in the Kings Crane-Helms Regional Bundle, is located at an elevation of 3,376 feet amid mountains with areas of dense sierran mixed conifer forests. The lake is accessed via a number of secondary highways and forest roads from the north, south, east, and west. Views of the lake dominate the surroundings. Pacific Gas and Electric Company owns 114.12 acres of Watershed Lands near Bass Lake, mostly on the west side. Figure 4.15-7 shows the north shore of Bass Lake as viewed from the northwest shore.

The northeastern shore of Bass Lake is developed with permanent and vacation homes, and commercial recreation facilities. Most of the development is located between Road 274 and the shoreline. The housing and dense vegetation block views from the road to the lake. The northeast shoreline is developed with docks, bulkheads, and retaining walls. Figure 4.15-8 shows the docks at private marina on the eastern shore of Bass Lake, and the view looking south from west shore of Bass Lake. Views to Bass Lake from Road 222 on the west shore are open to the shoreline, the lake, and the forests and mountains in the background on the eastern and southwest sides of the lake.

At present, during drawdown periods, docks and stationary piers are exposed and floating docks are grounded. This effect is observed first at the shallower north end of Bass Lake where the muddy bottom of the lake is exposed first.

The Bass Lake Homeowners' Association has stated that by Labor Day, the busiest weekend of the year, Bass Lake is 13 feet lower than its usual summer level. These changes in lake surface water levels and the associated views of grounded docks affect both background and foreground views.

The North Fork Area extends from a point just south of Bass Lake to Corrine Lake and the A.G.Wishon Powerhouse at an elevation of 2,401 feet. Road 222, Auberry Road, and Road 8030 cross this area. Vegetation ranges from sierran mixed conifer to oak woodland. Landforms vary from rolling hills that limit views in the foreground and middleground, to hilltops with long open views.

The North Fork Area includes views of canals, ditches, conduits and powerhouses, a small secluded fishing lake, a town typical of many foothill communities with a mixture of old and new development, and a small pond on a low hill with panoramic views.

Figure 4.15-9 shows a typical view of the landscape in the North Fork Area. Note the access road, bypass pipe, the San Joaquin No. 1 Powerhouse, and Corrine Lake on the far right of photo.

Manzanita Lake is the most significant physical feature in the North Fork Area. The lake is at an elevation of 2,825 feet above mean high sea level and water levels fluctuate substantially. Views of the lake are generally obscured by trees. Figure 4.15-9 shows a view of Manzanita Lake from the

Day Use Facility (Note the exposed sediment on left side of photo). The north side of Manzanita Lake is filled with sediment. Given the relatively small size of the lake and the sediment fill, aesthetic values are affected by changes in water levels.

Sierra National Forest Land and Resource Management Plans. FERC License Lands and Watershed lands are surrounded by Sierra National Forest boundaries. The USFS Land and Resource Management Plan designates the Bass Lake area as Developed Recreation with a VQOs of Retention. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the Crane Valley.

The Sierra National Forest Land Management Plan designates all of the North Fork area as Front Country. The drainage area from Bass Lake (including Manzanita Lake) to just south of the town of North Fork, has a VQO of Retention. From the San Joaquin PH #2 to A.G. Wishon and Lake Kerckhoff, the VQO changes to Partial Retention. Figure 4.15-8 shows a view of Corine Lake with the San Joaquin Powerhouse #1 in the middleground.

Bundle 17: Kerckhoff

Kerckhoff (FERC 0096)

The Kerckhoff Reservoir FERC License Lands and Watershed Lands, extend from the A.G. Wishon Powerhouse at an elevation of 1,003 feet to Millerton Lake at an elevation of approximately 650 feet. Vegetation around the reservoir consists of oak woodland, grassland, and modified agriculture growing on steep hillsides and rolling hills. Powerhouse and Auberry Roads are the main roads through this area. The Kerckhoff Reservoir is located within the Sierra National Forest. Wishon Powerhouse is on Powerhouse Road and is a major element in the landscape, which consists of Kerckhoff Reservoir, the town of Auberry, and the surrounding rolling hills.

Although the Reservoir is clearly visible from the bridge that crosses the Reservoir, most of the Reservoir is not visible from other parts of Powerhouse Road or the surrounding countryside. Kerckhoff Reservoir is small and shallow with limited operational flexibility. Reservoir levels are dependent upon discharges from Southern California Electric's Big Creek system. There are few viewpoints from which it can be seen and there is only one small day-use recreation facility at the reservoir. Only part of the reservoir can be seen from any single observation point. Because of the limited number, or absence, of views, this reservoir is considered to have low aesthetic sensitivity and it can be assumed that changes in surface water levels cannot be easily noticed.

Lands are dominated by the steep slopes of the river gorge, which limit views in the area. This gives the impression of a remote area, except for the hydroelectric facilities and fenced grazing areas.

The USFS land management designation for Kerckhoff Reservoir Area is Front Country and the VQO is Partial Retention.

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Figure 4.15-7
North Shore of Bass Lake (above), View of South from West Shore of Bass Lake (below), Kings Crane-Helms Regional Bundle

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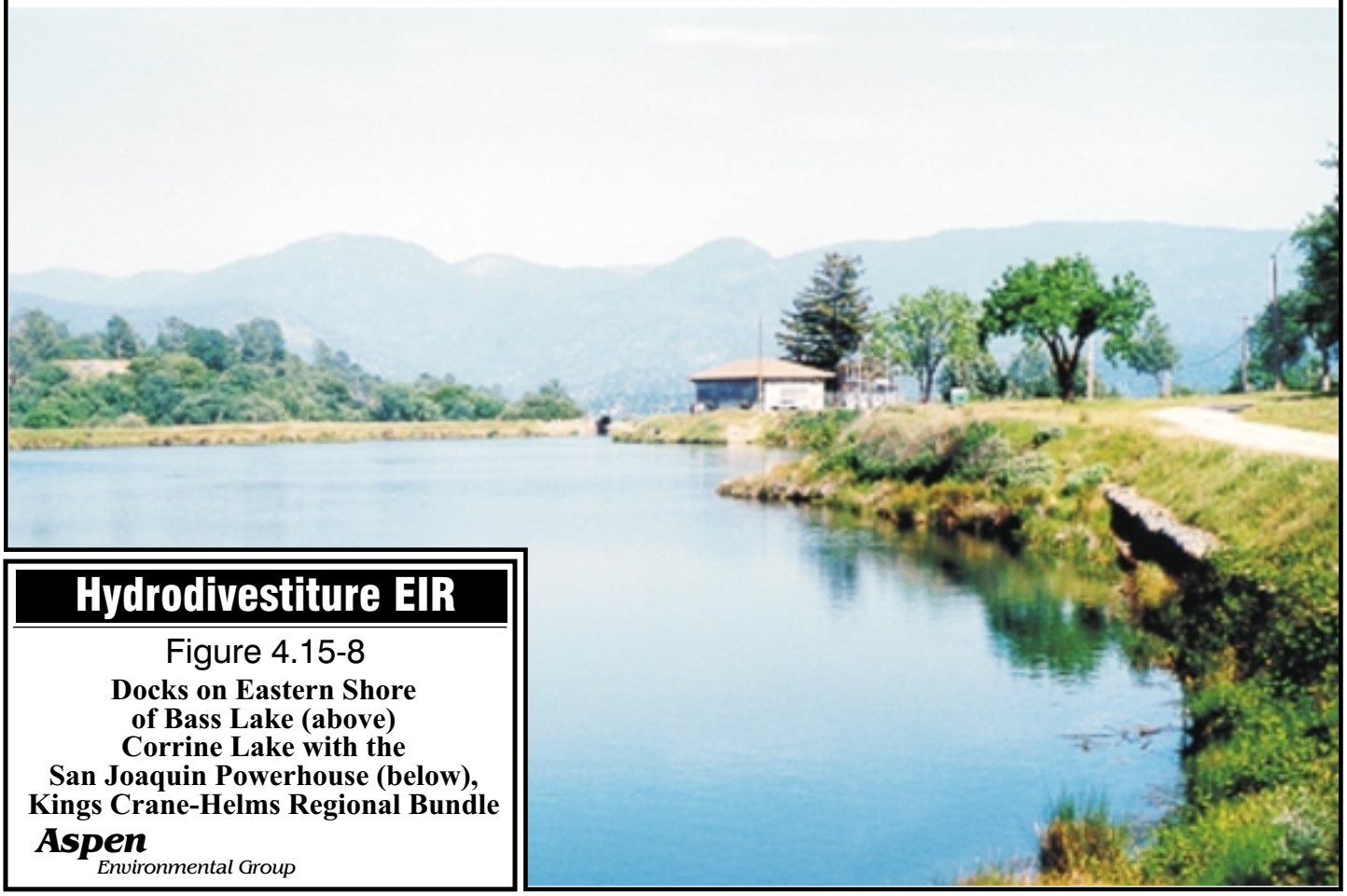

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Figure 4.15-8

Docks on Eastern Shore of Bass Lake (above) Corrine Lake with the San Joaquin Powerhouse (below), Kings Crane-Helms Regional Bundle

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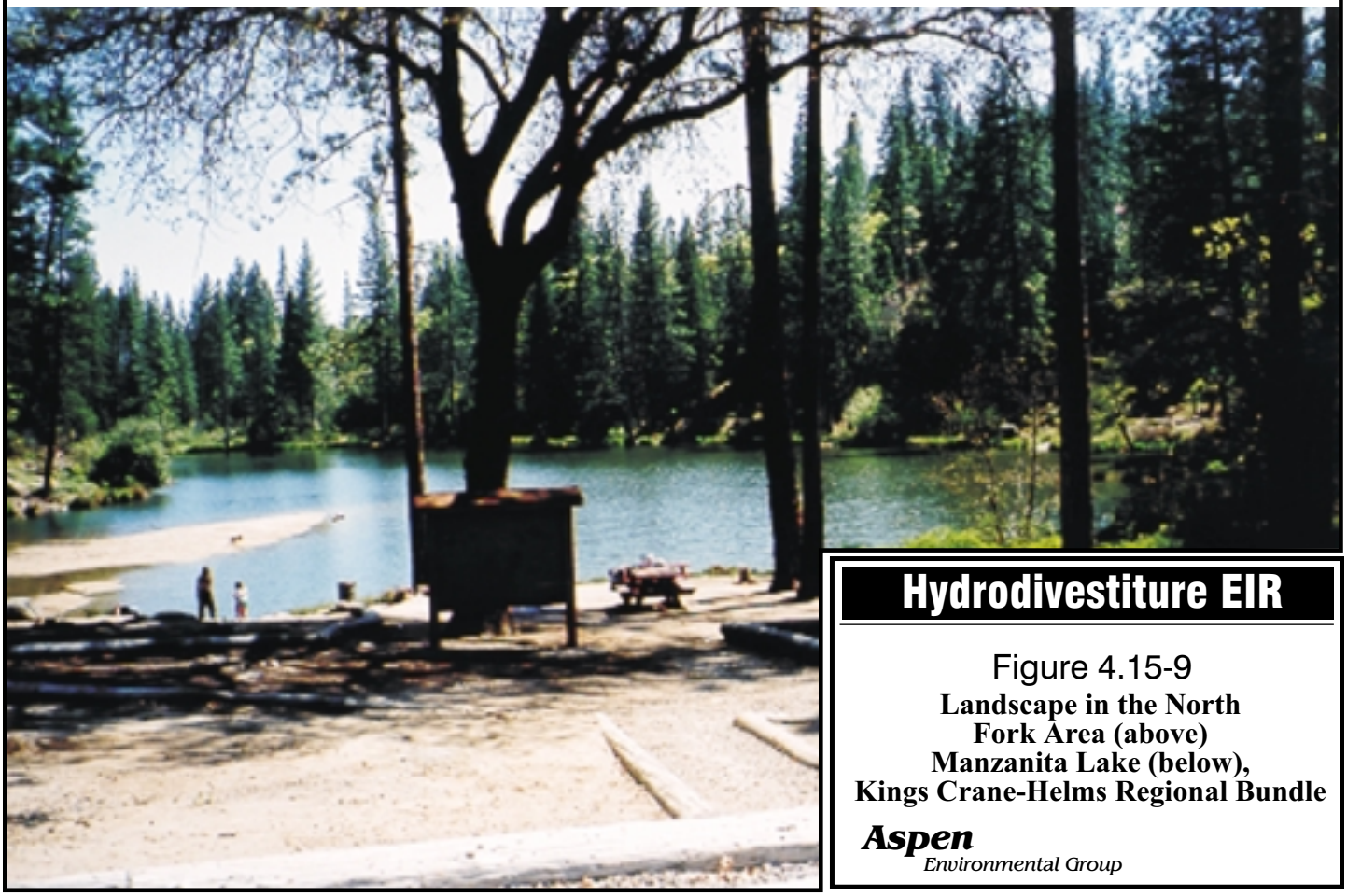

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Figure 4.15-9

Landscape in the North Fork Area (above) Manzanita Lake (below), Kings Crane-Helms Regional Bundle

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Bundle 18: Kings River

Helms Pumped Storage (FERC 2735)

The Helms Pumped Storage Project FERC License Lands and Watershed Lands are located at an elevation of approximately 6,500 to 7,100 feet, on the western slope of the Sierra Nevada within the Sierra National Forest. The area views are of high rugged mountains characterized by granite outcroppings, shallow soils, and mixed conifer forest. Vegetation consists primarily of lodgepole pine, white fir, and red fir overstory with mountain whitethorn and manzanita understory. The aesthetic character is scenic and natural with the exception of the hydroelectric generation facilities, nearby logging operations, and recreation areas.

FERC license conditions, Article 55 and 56, require that Pacific Gas and Electric Company avoid or minimize disturbance to scenic values during maintenance of the project works and blend the project works with the natural view.

Courtright Reservoir, located at an elevation of approximately 8,200 feet, covers a surface area of 1,632 acres when flooded. Access to the lake is provided by Courtright Road, which ends at the reservoir. Severe winter snow conditions make winter access problematic.

Foreground and middleground views from the shoreline include steep rocky shoreline, recreation related facilities, the lake, various recreation uses, and rugged mountains in the background. Recreational uses include camping, picnicking, hiking, boating, swimming, and fishing, which are concentrated along the southern and western shores. Additionally, the USFS provides a trailhead at the end of Maxson Dome Road at the southeast end of the lake for access to the John Muir Wilderness.

Lake Wishon is located approximately 10 miles south of Courtright Reservoir. At an elevation of approximately 6,550 feet, Lake Wishon covers a surface area of 1,025 acres when flooded and has nine miles of shoreline. Access to the lake is provided by McKinley Grove Road, which is reached from Fresno by the same series of roads used to ultimately reach Courtright Road and Courtright Reservoir. Similar to Courtright Reservoir, access to Lake Wishon is usually limited during the winter (i.e., November to May) due to snow conditions.

Use of the lake is concentrated along its southern and western shores, where access is provided by McKinley Grove Road. No public road access is available to the lake's northern and eastern shores. Foreground and middleground views from the shoreline include a steep rocky shoreline, recreation-related facilities, the lake, various recreation uses, and the rugged mountains in the background.

Sierra National Forest Land and Resource Management Plan. The Sierra National Forest Land and Resource Management Plan designates the area from Courtright Reservoir to south of Wishon Reservoir as Developed Recreation and the VQO is for Retention.

Haas-Kings River (FERC 1988) and Balch (FERC 0175)

FERC License Lands and Watershed Lands associated with the Haas-Kings River and Balch powerhouses and facilities contain a wide diversity of landscape from remote forest to highly modified agricultural areas. This diversity is the result of the interrelationship of elevation, climate, topography, vegetation, and human activities. There are two typical aesthetic types in the area as follows:

- High Sierra Region (Wishon Reservoir to Balch Powerhouse); and
- Foothill Region (Balch Powerhouse to Pine Flat Dam)

From Wishon Reservoir at elevation of 6,550 feet to Balch Powerhouse at 1,704 feet, vegetation is primarily coniferous forest. Deep green coniferous forest and occasional meadows cover the rugged terrain, except where broken by large granite outcrops, deep stream gorges and the North Fork Kings River (NFKR). The most dominant elements in the landscape are the granite outcrops which contrast sharply with the surrounding forest. Water features such as deep boulder-filled stream gorges, falls and lakes are another dominant element which add diversity to the aesthetic character of this region.

The steep rugged terrain limits vehicular access, and the more remote areas are accessible only by trail. These trails bring hikers, horse-packers and hunters into the area. Other visitors are primarily persons employed in the forest.

The USFS land management designation for the area south of Wishon Reservoir to just above the Balch Powerhouses is Dispersed Recreation and the VQO varies between Partial Retention (following a narrow corridor along the Kings River) and Modification.

Foothill Region. Within this region elevations range from 1,704 feet at Balch Powerhouse to 905 feet at Pine Flat Dam. Vegetation is primarily Digger Pine, Oak, and grasslands. This region is the transition zone between the High Sierra and San Joaquin Valley. No one landscape element dominates the aesthetic character of this area but several elements lend a unique character to the area. Steep slopes give way to rolling hills which are broken by the NFKR and Pine Flat Reservoir. Most major roads follow the river or reservoir. The river and reservoir also provide recreational activities, which are the primary attraction for visitors to this region.

A Memorandum of Agreement between Pacific Gas and Electric Company and the USFS contains measures to prevent impacts to aesthetic resources. The land management designation in this region is Developed Recreation for a narrow corridor along the Kings River and Front Country north of the river. The Kings River Special Management Area is located south of the River. The VQO for the region varies between Partial Retention (following a narrow corridor along the Kings River) and Modification.

There are two areas of Watershed Lands associated with the Kings River Bundle. The areas are adjacent to the Wishon Reservoir and Keller Ranch on the Kings River to the south.

Bundle 19: Tule River

Tule River (FERC 1333)

The Tule River project and Watershed Lands are located along the southeast side of a broad canyon in the North Fork of the Middle Fork of Tule River (NFMFTR), within the Sequoia National Forest. The project is a run-of-the-river project without storage, reservoirs, forebays, or afterbays.

The project extends from the Tule River Diversion Dam at an elevation of 4,005 feet to the Powerhouse tailrace at an elevation of 2,430 feet, along the steep slopes of the canyon. The slopes are covered with heavy vegetation. Road 190, a heavily traveled recreation route, follows the canyon bottom and is the main viewing area of the project facilities.

The area in the vicinity of the water diversion facilities supports mixed conifer vegetation and can be characterized as remote and rugged. The area is reached by Wishon Drive, which is paved, and parallels NFMFTR.

Because of the topography and vegetation none of the water diversion facilities are visible from Wishon Drive. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project.

The Sequoia National Forest Land Resource Management Plan designates the project area as Water Oriented Recreation along the river corridor and Grazing and Dispersed Recreation for areas adjacent to the river. The VQO for the Project area is Partial Retention along the river corridor and Modification for the surrounding lands.

Bundle 20: Kern Canyon

Kern Canyon (FERC 0178)

The Kern Canyon Project Lands and Watershed Lands are located at the mouth of Kern Canyon on the lower Kern River, about 15 miles from Bakersfield. Project facilities range in elevation from approximately 950 feet at the Kern Canyon Diversion Dam to about 700 feet at the Kern Canyon Powerhouse. No storage reservoirs are used by the Kern Canyon project for power production, however, there is a three-acre reservoir (Kern Canyon Reservoir) on the Kern River. The diversion dam and intake and some of the water conveyance tunnel are located within the boundaries of the Sequoia National Forest. No designated wilderness areas or Wild and Scenic Rivers are located near Kern Canyon Project facilities. In addition, there are no scenic highways or designated scenic overlooks in the vicinity of the Kern Canyon project.

The Kern Canyon Project Diversion Dam is located in the steep, lower Kern River Canyon. The vegetation in the area is mostly chaparral, with riparian vegetation along the canyon bottom. The topography of the Kern Canyon FERC Licensed Lands and Watershed Lands are characterized by a narrow, steep canyon, which provides limited recreation.

The USFS land management designation for the Kern Canyon project area is Water Oriented Recreation. The VQO for this area is Retention along the river corridor and Partial Retention for the surrounding land.

4.15.5 STANDARDS OF SIGNIFICANCE

The project could have a potentially significant aesthetic impact if its implementation would result in one or more of the following:

- A substantial adverse effect on a scenic vista;
- Substantial damage scenic resources within a State Scenic Highway or designated County Scenic Byway or Scenic River Corridor;
- A new source of substantial light or glare that would change the existing character of the setting;
- Substantial degradation of the existing visual character or quality of the area; or
- Inconsistencies with Federal (i.e., USFS, VQOs, and Visual Standards and Guidelines) and/or local policies pertaining to visual resources.

4.15.6 ANALYTICAL METHODS

4.15.6.1 General Methodology

Analysis of impacts to visual character is subjective by nature, since the qualities that create an aesthetically pleasing setting will vary from person to person. For the purposes of this analysis, all Watershed Lands and FERC-licensed areas were visited in order to determine the current visual character, surrounding setting and visibility of these lands and facilities from public viewing areas.

Federal, State and Local Plans and Policies were also reviewed to identify specific visual resource protection policies that are applicable to project features and/or immediately adjacent lands. Specific documents considered in this review included:

- County General Plan Scenic Byway, Land Use, Open Space and Conservation and Resource Elements;
- The USFS's Visual Management System including VQOs;
- The Federal Wild and Scenic Rivers Act;
- BLM Significance Criteria;
- California Scenic Highway Program; and
- The California Forest Practice Rules, Sections 912.9, 932.9 and 952.9.

The impact analysis has been focused on two elements of the project: Land Areas, as described in Chapter 3, and key reservoirs which experience significant recreational use, described in Section 4.6, Recreation. These features have been determined to be the most likely to experience

substantial changes in character as a result of intensification of development activities (timber harvest, development, and mining activities) or changes in reservoir levels as modeled for the PowerMax and WaterMax Scenarios. Visual impacts related to changes in facilities required to facilitate divestiture (e.g., fencing, accessory structures) were considered minor given their size and proximity to existing improvements, and are not discussed further in this section. It is anticipated that existing power generation and conveyance facilities will be retained in their current condition, and modifications to these facilities are not addressed in this section.

The following parameters were considered in evaluating visual impacts:

- Visibility of the Land Area and/or Reservoir from public viewing areas including roadways;
- Current visual character of Land Area and/or Reservoir and surrounding areas;
- Estimated development intensity in relation to Land Area size and surrounding uses;
- Potential inconsistencies with applicable plans and policies; and
- Potential effects of future hydrological operation changes (Section 3.9.1) at reservoirs under the PowerMax and WaterMax Scenarios.

The development potential for various Land Areas was determined based on an analytical method described in detail in Chapter 3 of this document. Currently, there are no specific development requests or development types proposed for these lands. Consequently, specific site plans are not available for consideration in this document.

4.15.6.2 Analytical Approach for Land Development Impacts

The analysis of land development aesthetic impacts generally follows the USFS VQOs but has been expanded to encompass other pertinent federal, state, and local policies. The common elements of these policies include the goals of preservation and retention of visual resources of affected landscapes and minimizing vegetative and landform alterations to these landscapes where concerned viewers (e.g., resident, campers, hikers, passing motorist, etc.) are known to be present.

The following were used to determine whether or not the project could degrade visual character: total acreage of Land Areas; development potential in equivalent dwelling units (EDUs); average density; visibility from a major roadway, existing community, or designated scenic highway; and identification as a key recreation resource area.

Some Land Areas contained USFS VQO designations. These are identified within Regional Bundle discussions where appropriate. Because land development associated with the project can only be evaluated on a gross planning scale (e.g., EDUs), VQO's are referenced in the settings discussion along with other appropriate designations and policies necessary to characterize the aesthetic and visual resources of various Land Areas. However, the impacts discussion does not rely entirely on USFS Visual Management System analysis of VQO's because this analysis would require

identification of a particular viewshed and a specific project impact, which is possible for the project.

If the average density for a given Land Area could be greater than 1 unit per five acres and is located in an area that is visible to the public and a key recreational resource area, then the project could degrade visual character within that Land Area. A number of Land Areas across all five regional bundles fit this particular description. Typical aesthetic impacts could include massing of structures blocking or altering views of lakes, reservoirs, hillsides, scenic corridors, rivers or other scenic points of interest. Building facades, architecture, and design could be incompatible with the color, form, and texture of surrounding buildings or those found in the surrounding community.

Land Areas across all five regional bundles are primarily undeveloped. Sensitive receptors include recreational users and existing land uses in nearby communities. Development within the Land Areas could include residential, recreational resort, and similar land uses with night lighting levels higher than the existing rural character in the vicinity. New light sources could include street and parking lot lights, decorative lighting, security lights, and additional light generated by increased automobiles. Stationary light sources have the potential to adversely affect existing residents and recreational users through "spillover" into adjacent properties. Additionally, new light sources could result in a greater overall level of light at night, thus reducing night sky visibility and affecting the general character of the existing community.

4.15.6.3 Analytical Approach for Timber Harvest Impacts

The analysis of timber harvest aesthetic impacts generally follows the California Forest Practice Rules procedures for assessing visual effects.

The aesthetic impacts associated with timber harvest are based on Section 3.9.3, Timber Harvest Assumptions on FERC-Licensed Lands and Watershed Lands in the next five-year period. These include the type and intensity of timber harvest that can be expected in each Land Area. For those Land Areas that are not visible from any public viewing areas impacts were considered less than significant for all timber management prescriptions. For those Land Areas visible from public viewing areas, impacts were determined based on the existing visual character of the land, proximity to sensitive viewers, amount of harvestable acres, and the assumed timber management prescription. Even-aged management of 20 percent or more of a land area would result in significant aesthetic impacts if open to public view. Clearcutting of timber is the most severe of all. On the other extreme, in all cases where salvage was the prescribed management practice, impacts were considered to be less than significant.

If no new timber harvest other than salvage activities or uneven-aged management could occur in the vicinity of a Land Area then no adverse impacts associated with timber harvesting could occur. Due to the nature of timber salvage activities, which include selective timber cuttings and removal of dead trees, it is anticipated that this type of timber harvest management could not result in

substantial degradation of the visual character or visual quality in areas adjacent to recreational uses, residences, or scenic corridors.

However, even-aged management including clearcutting, seed tree, shelterwood, or shelterwood removal activities could result in significant aesthetic impacts. In this case, most all merchantable trees are harvested or removed. Many of the Land Areas could be affected by even-aged management resulting in a significant loss of trees in areas known as scenic corridors, scenic vistas, or key recreational areas. This loss of vegetation is considered a significant impact.

4.15.6.4 Analytical Approach For Operational Changes In Reservoir Levels

Stream Fluctuations

The EIR considered visual impacts to stream reaches systemwide associated with draw down. However, changes in streamflow as a result of changed operations would not substantially vary from existing conditions, and would increase or decrease the wetted stream course to a degree that would not be visually significant. For this reason, variability in stream flows are not expected to create a significant impact

Reservoir Draw Down

The EIR considered visual impacts to reservoirs systemwide associated with draw down. Given that reservoir draw down normally occurs under baseline conditions, the EIR analysis looked into determining what visual impacts could result from substantial draw down of reservoirs beyond baseline conditions, due to operational changes during the peak recreational season (Memorial Day to Labor Day).

Typical aesthetic effects resulting from drawn down under baseline conditions include:

- Lower water levels exposing barren, un-natural appearing shores (e.g., bathtub ring) and discolored wave wash near shorelines (e.g., exposed red soils producing reddish, muddy, and often murky waters);
- Exposed tree stumps, pipes, and lake bottom debris (e.g., trash, etc.); and
- Exposed dock pilings.

Reservoir draw down could negatively effect passive or active recreational users of the reservoirs because it is so different from reservoir full viewing conditions. The project could result in deeper draw down earlier in the year resulting in adverse effects on scenic vistas and visual resources.

Therefore, reservoir draw down associated with the proposed Project could result in a *potentially significant impact* to scenic vistas and visual resources systemwide during the peak recreational season (Labor Day to Memorial Day).

4.15.7 INTRODUCTION TO IMPACTS AND MITIGATION MEASURES

For Aesthetics, the following impacts have been identified:

- Impact 15-1: The project could substantially degrade visual character due to intensification of land development (Significant).
- Impact 15-2: The project could degrade visual character due to operational changes in reservoir levels resulting in substantial draw down of reservoirs during the peak recreational season (Labor to Memorial Day) (Significant).

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

4.15.8 IMPACT 15-1: IMPACT, ANALYSIS, AND MITIGATION MEASURES

Impact 15-1: The project could substantially degrade visual character due to intensification of land development.

4.15.8.1 Impact 15-1: Shasta Regional Bundle

Bundle 1: Hat Creek

Hat Creek 1 and 2 (FERC 2661)

Hat Creek Land Area. The assumed development potential for the Hat Creek Land Area is 594 EDUs distributed across 2,969 acres, resulting in an average density of one dwelling unit per five acres.

Although this Land Area is located south and east of Highway 299 and Highway 89, which are eligible for official scenic highway designation, vegetation and topography limit views to the Land Area from these roadways. The Hat Creek Land Area is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and existing land uses in Cassel.

The potential development of one EDU per five acres exceeds the significance threshold determined above, and may result in noticeable increases in light and glare. Additionally, if new development were located adjacent to or within view of a sensitive public viewing area, it could result in obtrusive new development, altering the existing character of the community and Land Area. Therefore, this impact is considered potentially *significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Secario Aggressive Harvest, there is no aggressive timber harvest management projected for this bundle. Therefore, there are no adverse impacts associated with timber harvest in the Hat Creek Bundle.

Bundle 2: Pit River

Pit 1 (FERC 2687)

Pit 1 Land Area. The assumed development potential for the Pit 1 Land Area is 714 EDUs distributed across 3,568 acres, resulting in an average density of one dwelling unit per five acres.

Although this Land Area is located adjacent to SR 299, eligible for official scenic highway designation, vegetation and steep canyon topography limit views to a majority of the Land Area from this roadway. However, a vista point located on SR 299 provides a view of Pit River Falls (located south of SR 299 in the vicinity of areas identified for potential development). The Pit 1 Land Area is primarily undeveloped. The unincorporated community of Fall River Mills is located immediately adjacent to the northern portion of the Land Area. Sensitive receptors in this Land Area include recreational users on the Fall and Pit Rivers and existing land uses in Fall River Mills.

Due to the steep terrain on portions of the Land Area, potential development would most likely be located adjacent to Fall River Mills and parcels located along the Pit River south of Highway 299. The potential development of 1 EDU per five acres exceeds the significance threshold determined above, and may result in noticeable increases in light and glare. Additionally, if new development were located adjacent to or within view of a sensitive public viewing area, including Fall River Mills and SR 299, it could result in obtrusive new development, altering the existing character of the community and Land Area. Therefore, this impact is considered potentially *significant*.

McArthur Swamp Land Area. This area has been proposed for transfer to the California Waterfowl Association (see Section 4.1, Land Use). While this decision is still pending, an analysis was made of the area. The assumed development potential for the McArthur Swamp Land Area is 17 EDUs distributed across 6,135 acres, resulting in an average density of one EDU per 360 acres. The potential development of one EDU per 360 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the McArthur Swamp Land Area.

Pit 3, 4, and 5 (FERC 0233)

Lake Britton Land Area. The assumed development potential for the Lake Britton Land Area is 264 EDUs distributed across 2,636 acres, resulting in an average density of one dwelling unit per ten acres.

Lake Britton is considered a key recreational resource. Highway 89, eligible for official scenic highway designation, crosses over the west side of the lake. The Lake Britton Land Area is primarily undeveloped. Sensitive receptors in this Land Area are primarily recreational users.

The potential development of approximately one EDU per 10 acres does not exceed the significance threshold determined above, nor would it result in a noticeable increase in light and glare. Therefore, this impact is considered *less than significant*.

Pit 3 Land Area. The assumed development potential for the Pit 3 Land Area is 736 EDUs distributed across 3,681 acres, resulting in an average density of one dwelling unit per five acres.

This Land Area is located immediately adjacent to SR 299, a state route eligible for official scenic highway designation, and travelers could have direct views of potential development. The Pit River is identified as a key recreational resource. Additionally, a three-mile portion of Hat Creek is designated as a Wild Trout Stream. The Pit 3 Land Area is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and travelers on SR 299.

The potential development of one EDU per five acres exceeds the significance threshold determined above, and may result in a noticeable increase in light and glare. Additionally, if new development were located adjacent to or within view of a sensitive public viewing area, it could result in obtrusive new development, altering the existing character of the community and Land Area. Therefore this impact is considered potentially *significant*.

McCloud-Pit (FERC 2106)

McCloud & Pit 4, 5, 6, & 7 Land Area. The assumed development potential for the McCloud, Black, Pit Land Area is 95 EDUs distributed across 15,162 acres, resulting in an average density of one dwelling unit per 160 acres.

This Land Area is not located adjacent to or within view of designated or eligible scenic roadways. The Pit River, McCloud River, Iron Mountain Reservoir, and McCloud Reservoirs are considered key recreational resources. The McCloud and Pit Land Area is primarily undeveloped. The unincorporated community of Big Bend is located adjacent to lands in the central portion of the Land Area. Sensitive receptors in this Land Area include recreational users and existing land uses in Big Bend.

The potential development of one EDU per 160 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Any potential development would not be located adjacent to or within view of sensitive public viewing areas. Therefore, the potential impacts are considered *less than significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, this bundle contains 1,485 acres that are suitable for aggressive timber management (out of 21,479 total acres). Because the total percentage of land projected to be under aggressive timber management is below the significance threshold of 20 percent, impacts associated with timber harvest in the Pit River Bundle are considered *less than significant*.

Bundle 3: Kilarc-Cow Creek

Kilarc-Cow Creek (FERC 0606)

The Kilarc-Cow Creek Land Area. The assumed development potential for the Kilarc-Cow Creek Land Area is 20 EDUs distributed across 2,603 acres, resulting in an average density of one dwelling unit per 130 acres.

This Land Area is not located adjacent to or within view of designated or eligible scenic roadways. The Kilarc-Cow Creek Land Area is primarily undeveloped. There are no formal or informal recreational opportunities on the Watershed Lands within this Land Area.

The potential development of one EDU per 130 acres does not exceed the significance threshold described above, nor would it result in a noticeable increase in light and glare. Any potential development would not be located adjacent to or within view of sensitive public viewing areas. Therefore, the potential impacts are considered *less than significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Kilarc-Cow Creek Bundle contains 50 acres that are suitable for aggressive timber management. The total acreage for this bundle is 2,603. Because the total percentage of land projected to be under aggressive timber management falls below the significance threshold of 20 percent, impacts associated with timber harvest in the Kilarc-Cow Creek Bundle are considered *less than significant*.

Bundle 4: Battle Creek

Battle Creek (FERC 1121)

Shingletown Land Area. The assumed development potential for the Shingletown Land Area is 558 EDUs distributed across 5,528 acres, resulting in an average density of one dwelling unit per 10 acres.

Portions of the Land Area, particularly near Lake Grace and Lake Nora, are easily accessible from SR 44. Although there are no key recreational reservoirs or rivers and streams in the Land Area, there are minor recreational resources. Sensitive receptors in this Land Area include recreational users and existing land uses in Shingletown.

The potential development of one EDU per 10 acres does not exceed the significance criteria described above, nor would it result in a noticeable increase in light and glare. Any potential development is not expected to be within view of sensitive public viewing areas. Therefore, the potential impacts are considered *less than significant*.

Inskip Powerhouse Land Area. The assumed development potential for the Inskip Land Area is 38 EDUs distributed across 1,354 acres, resulting in an average density of 1 dwelling unit per 35 acres, and no acreage identified for timber harvest activities.

The Inskip Land Area is primarily undeveloped. There are no formal or informal recreational opportunities on the Watershed Lands within this Land Area. The potential development of one unit per 35 acres does not exceed the significance threshold described above, nor would it result in a noticeable increase in light and glare. Any potential development is not expected to be within view of sensitive public viewing areas. Therefore, impacts are considered *less than significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Battle Creek Bundle contains 250 acres that are suitable for aggressive timber management (out of a total acreage of 5,528). Because of the total percentage of land projected to be under aggressive timber management falls below the significance threshhold of 20% impacts associated with timber harvest in Bundle 4: Battle Creek are considered *less than significant*.

Summary of Impact 15-1: Entire Shasta Regional Bundle

Timber Harvest

In each of the four bundles analyzed in the Shasta Regional Bundle, timber harvest activities would result in *less than significant* impacts to the existing aesthetics.

Land Development and Lighting

Of the four bundles analyzed in the Shasta Regional Bundle, land development would result in potentially significant impacts to the existing aesthetics of the following Land Areas: Hat Creek (Bundle 1), Pit 1, Pit 3 (Bundle 2), and Lake Britton (Bundle 2). Adherence to Mitigation Measure 15-1a and 15-1b (see Section 4.15.8.7) would reduce impacts to a *less than significant* level.

4.15.8.2 Impact 15-1: DeSabla Regional Bundle

Bundle 5: Hamilton Branch

Hamilton Branch (non-FERC jurisdictional)

Hamilton Branch Land Area. The assumed development potential for the Hamilton Branch Land Area is 16 EDUs distributed across 239 acres, resulting in an average density of one EDU per 15 acres.

The Hamilton Branch Land Area is primarily undeveloped. The unincorporated town of Westwood is located west of the Land Area. This Land Area is located south of SR 36 and west of SR 147, both of which have Lassen County Scenic Byway designation. Sensitive receptors in this Land

Area include recreational uses, travelers on the Scenic Byways, and existing land uses in Westwood. Potential development within the Land Area could occur adjacent to existing residential uses near the Hamilton Branch Powerhouse.

The potential development of one EDU per 15 acres does not exceed the significance threshold described above, nor would it result in noticeable changes in light and glare or development density. Additionally, the current setting includes existing development, and the new development of 16 EDUs would not substantially alter the character of the existing community and Land Area. Therefore, this impact is considered *less than significant*.

Mountain Meadows Land Area. The assumed development potential for the Mountain Meadows Land Area is 19 EDUs distributed across 1,912 acres, resulting in an average density of one EDU per 100 acres.

This Land Area is located south of SR 36 and east of SR 147, both of which are designated scenic byways by the County of Lassen. The Mountain Meadows Land Area is primarily undeveloped, except for the small town of Westwood to the north. Sensitive receptors in this Land Area include informal recreational users, travelers on SR 36 and SR 147, and existing land uses in Westwood.

The potential development of one EDU per 100 acres does not exceed the significance criteria described above, nor would it result in noticeable increases in light and glare. Additionally, the current setting includes existing development, and the new development of 19 EDUs would not substantially alter the character of the existing community and Land Area. Therefore, this impact is considered *less than significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Hamilton Branch Bundle contains no acreage that is suitable for aggressive timber management. Therefore, there are *no adverse impacts* associated with timber harvest in the Hamilton Branch Bundle.

Bundle 6: Upper North Fork Feather River

Upper North Fork Feather River (FERC 2105)

North Lake Almanor Land Area. The assumed development potential for the North Lake Almanor Land Area is 87 EDUs distributed across 866 acres, resulting in an average density of one dwelling unit per 10 acres.

This Land Area is located north of SR 36, which have been designated as Scenic Byway by the County of Lassen. Views of the Land Area from SR 36 are open from the causeway crossing the lake but are relatively distant. Lake Almanor is considered a key recreational resource. This portion of Lake Almanor has remained undeveloped. The unincorporated town of Chester is

located adjacent to the southwestern end of the Land Area. Sensitive receptors in the North Lake Almanor Land Area include recreational users and existing land uses in Chester.

The potential development of one EDU per 10 acres does not exceed the significance criteria described above, nor would it result in a noticeable increase in light and glare. Additionally, development of 87 EDUs would not substantially alter the character of the existing community and Land Area. Therefore, this impact is considered *less than significant*.

West Lake Almanor/Prattville Land Area. The assumed development potential for the West Lake Almanor Land Area is 276 EDUs distributed across 276 acres, resulting in an average density of one dwelling unit per acre.

The West Lake Almanor/Prattville Land Area is located on the west shore of Lake Almanor, and straddles SR 89, which is eligible for scenic highway designation. Lake Almanor is considered a key recreational resource. Most development in the Land Area is centered around the Almanor and Prattville communities. Sensitive receptors in this area include recreational users and existing uses in the communities of Almanor and Prattville.

The potential development of one EDU per one acre exceeds the significance threshold described above. As such, it could result in noticeable increases in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore, this impact is considered potentially *significant*.

Southeast Lake Almanor Land Area. The assumed development potential for the Southeast Lake Almanor Land Area is 615 EDUs distributed across 1,230 acres, resulting in an average density of one dwelling unit per two acres.

Lake Almanor is considered a key recreational resource. The Land Area is highly visible from SR 147, which bisects the Land Area. Except for the small community of Canyon Dam, and scattered private homes along the shore, this portion of Lake Almanor is primarily undeveloped. Sensitive receptors in this area include recreational users, existing land uses in Canyon Dam and travelers on SR 147.

The potential development of one EDU per two acres exceeds the significance criteria described above. Additionally, the potential development of 615 EDUs in areas adjacent to a key recreational resource and SR 147 with little existing development could result in a noticeable increase in light and glare, changing the existing character of the Land Area. Therefore, the impacts associated with development of the Southeast Lake Almanor Land Area are considered potentially *significant*.

In addition, the current viewshed of this portion of the Land Area from the southwest shore of Lake Almanor is of high bluffs and riparian habitat. Development on the southeast shore could adversely affect the viewshed from the opposite side of the lake.

Butt Valley Reservoir Land Area. The assumed development potential for the Butt Valley Reservoir Land Area is 92 EDUs distributed across 920 acres, resulting in an average density of one dwelling unit per 10 acres.

Butt Valley Reservoir is considered a key recreational resource in Plumas County, in part due to its reputation for trophy trout fishing. The Butt Valley Reservoir Land Area is primarily undeveloped. There are no communities located near or adjacent to the Land Area. Sensitive receptors in this Land Area include recreational users at Butt Valley Reservoir.

The potential development of one EDU per 10 acres does not exceed the significance threshold described above, nor would it result in noticeable increases in light and glare. Potential development would not be located within view of a sensitive public viewing area. Therefore, the potential impacts to sensitive receptors would be minimized and impacts are considered *less than significant*.

Caribou to Belden Land Area. The assumed development potential for the Caribou and Belden Area is 16 EDUs distributed across 370 acres, resulting in an average density of one EDU per 23 acres.

SR 70, which runs through the NFFR Canyon, is designated a state Scenic Highway. The majority of the Caribou to Belden Land Area is comprised of steep slopes along the NFFR, with some flatter areas, and is primarily undeveloped. Recreational users in this Land Area access the NFFR for fishing and swimming. Sensitive receptors in this area include recreational users and existing land uses in Beldentown. The nature of the terrain restricts the potential development of 16 EDUs to small, flatter areas which already contain scattered residences.

The potential development of one EDU per 23 acres does not exceed the significance threshold, nor would it result in noticeable increases in light and glare. Additionally, the current setting includes some existing development, and the new development of 16 EDUs would not substantially alter the character of the existing community and Land Area. Therefore, the potential impacts are considered *less than significant*.

Rock Creek-Cresta (FERC 1962)

Humbug Valley Land Area. The assumed development potential for the Humbug Valley Land Area is 240 EDUs distributed across 2,402 acres, resulting in an average density of one dwelling unit per 10 acres.

There are no scenic roadways or over looks in this Land Area, located south of Lake Almanor and west of Butt Valley Reservoir in Plumas County. Due to its Wild Trout Stream status, Yellow Creek in Humbug Valley is considered a key recreational resource. Development in Humbug Valley consists of one existing ranch and a restored Victorian home. Sensitive receptors in this land area include recreational users.

The potential development of one EDU per 10 acres does not exceed the significance criteria described above. However, given the near pristine character of the area, development could result in noticeable increases in light and glare. Generally, the potential development of 240 EDUs in areas adjacent to key recreational resources and in a near pristine setting could result in development that, within the current setting, would substantially change the existing character of the area. Although the total size of the Land Area could allow for open space buffers to be incorporated into site design, the introduction of 240 EDUs into a previously natural setting with little to no existing light sources could result in a potentially *significant impact*.

Rock Creek-Cresta Land Area. The assumed development potential for the Rock Creek-Cresta Land Area is 17 EDUs distributed across 1,175 acres, resulting in an average density of one dwelling unit per 69 acres.

The Rock Creek-Cresta Land Area is primarily undeveloped, except for a few wide spots in the canyon upon which the small rural communities/resorts of Tobin and Storrie are located. Due to the narrowness of the canyon, much of it remains uncluttered by signs, billboards, or structures. SR 70, which winds through the NFFR canyon, is designated as a Scenic Byway by the National Forest Scenic Byway program. Recreational uses in the Rock Creek-Cresta Land Area consist primarily of fishing and swimming in the NFFR. Sensitive receptors in this Land Area are recreational users and existing uses in the small communities.

The potential development of one EDU per 69 acres does not exceed the significance threshold described above, nor would it result in noticeable increases in light and glare. New development would likely be located among existing development on the flatter areas in the canyon. Therefore, any aesthetic impact associated with land development in the Rock Creek-Cresta Land Area is considered *less than significant*.

Poe (FERC 2107)

Poe Land Area. The assumed development potential for the Poe Land Area is 31 EDUs distributed across 3,823 acres, resulting in an average density of one dwelling unit per 123 acres.

The Poe Land Area is primarily undeveloped. Due to the narrow canyon topography, most of the terrain in the Poe Land Area consists of steep hillsides. Where the canyon does widen enough to permit development, the small communities of Pulga and Mayaro, consisting of scattered dwellings, have been established on the north side of the NFFR. Recreational uses are restricted to fishing and swimming, access to which is provided by pullouts along SR 70, a designated Scenic Byway.

The potential development of one EDU per 123 acres does not exceed the significance criteria described above, nor would it result in a noticeable increase in light and glare. New development would most likely be located among existing development on the flatter areas in the canyon. Due to the low development potential in the Poe Land Area, impacts associated with land development

would not substantially alter the character of the existing communities and Land Area. Therefore, this impact is considered *less than significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Upper North Fork Feather River Bundle contains 380 acres suitable for aggressive timber management. The total acreage of this bundle 11,062. Because the total percentage of land projected to be under aggressive timber management falls below the significance threshold of 20 percent, impacts associated with timber harvest in this bundle are considered *less than significant*.

Bundle 7: Bucks Creek

Bucks Creek (FERC 0619)

Bucks Creek/Lake Land Area. The assumed development potential for the Bucks Creek Land Area is 244 EDUs distributed across 1,222 acres, resulting in an average density of one dwelling unit per five acres.

The Bucks Creek/Lake Land Area is unevenly developed. Over 100 Pacific Gas and Electric Company leased summer recreational homes line the southeastern shore of the lake, where there are also several lodges that offer vacation rentals and boat rentals. The Haskins Valley area, south of Bucks Lake, also includes Pacific Gas and Electric Company leased summer homes. Bucks Lake is considered a key recreational resource. The Land Area is not located within or adjacent to any scenic highways or byways. Views of the Bucks Creek/Lake Land Area from the two access roads to Bucks Lake are limited by vegetation and topography. Sensitive receptors include recreational users and similar land uses in the developed areas east and south of the lake.

The potential development of one EDU per five acres exceeds the significance criteria described above, and may result in a noticeable increase in light and glare. In an area prized for its scenic quality, the potential development of 244 EDUs could result in development that would substantially alter the character of the existing development and Land Area. Therefore, this impact is considered potentially *significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Bucks Creek Bundle contains 250 acres that are suitable for aggressive timber management. The total acreage of this bundle is 1,222. Because the total percentage of land projected to be under aggressive timber management meets the significance threshold of 20%, timber harvest activities could result in changes to the visual character or quality of the Bucks Creek Bundle. Therefore, impacts are considered potentially *significant*.

Bundle 8: Butte Creek

DeSabla-Centerville (FERC 0803)

DeSabla-Centerville Land Area. The assumed development potential for the DeSabla-Centerville Land Area is 66 EDUs distributed across 2,471 acres, resulting in an average density of one dwelling unit per 37 acres.

There are no designated or eligible scenic corridors in this Land Area. The DeSabla-Centerville Land Area is unevenly developed. The towns of Paradise, Magalia, and Stirling City are located in proximity to this Land Area. Sensitive receptors in this Land Area include existing land uses in these towns. The only key recreational resource associated with the DeSabla-Centerville Land Area is Philbrook Reservoir. Other recreation associated with the DeSabla-Centerville Land Area is minimal on Butte Creek and dispersed in the Cascade foothills.

The potential development of one EDU per 37 acres does not exceed the significance criteria described above, nor would it result in noticeable increases in light and glare. In addition, new development would not be located adjacent to or within view of a sensitive public viewing area. Therefore, any impacts associated with land development in the DeSabla-Centerville Land Area would not substantially alter the character of the existing Land Area. Therefore, this impact is considered *less than significant*.

Coal Canyon (non-FERC jurisdictional)

Coal Canyon Land Area. The assumed development potential for the Coal Canyon Land Area is 378 EDUs distributed across 1,133 acres, resulting in an average density of one dwelling unit per three acres.

The Coal Canyon Land Area is north and northwest of Lake Oroville, a major recreation attraction in Butte County. Although the Coal Canyon Land Area is sparsely populated, it is directly adjacent to the major population center of Oroville.

The potential development of one EDU per three acres exceeds the significance criteria described above, and may result in noticeable changes in light and glare. Because of the proximity to existing residential neighborhoods and the Lake Oroville State Recreation Area, alteration of the general character of the Land Area, would result in impacts that are considered potentially *significant*.

Timber Harvest Potential. According to Section 4.2, Forestry, and Table 3-10, Harvest Scenario Aggressive Harvest, the Butte Creek Bundle contains 50 acres suitable for aggressive timber management. The total acreage for this bundle is 3,604. Because the total percentage of land projected to be under aggressive timber management falls below the significance threshold of 20%, impacts associated with timber harvest in the Butte Creek Bundle are considered *less than significant*.

Summary of Impact 15-1: Entire DeSabla Regional Bundle

Land Development and Lighting

Of the 13 Land Areas analyzed in the DeSabla Regional Bundle, land development would result in potentially significant impacts to the existing aesthetics of four Land Areas: West Lake Almanor/Prattville, Southeast Lake Almanor, Humbug Valley (all Bundle 6), and Bucks Creek/Lake (Bundle 7). Adherence to Mitigation Measures 15-1a and 15-1b would reduce impacts to a *less than significant* level.

Timber Harvest

Of the four bundles analyzed in the DeSabla Regional Bundle, timber harvest activities would result in potentially significant impacts to existing aesthetics of one bundle: Bundle 7, Bucks Creek. Adherence to Mitigation Measure 15-1c would reduce impacts to a *less than significant* level.

4.15.8.3 Impact 15-1: Drum Regional Bundle

Bundle 9: North Yuba River

North Yuba River (FERC 1403)

Narrows Land Area. The assumed development potential for the Narrows Land Area is three EDUs distributed across 64 acres, resulting in an average density of one dwelling unit per 22 acres. There is no new timber harvest planned for the Narrows Land Area.

The North Yuba River project is located on the southeast bank of the Yuba River downstream of the convergence of the South and North Yuba Rivers, about 12 miles west of Grass Valley in Nevada County. The Narrows Land Area is primarily undeveloped. Sensitive receptors in this Land Area include recreational users of the Englebreit Lake Recreation Area and existing land uses in Alta Hill/Grass Valley/Nevada City communities (DeLorme, 1998a).

The North Yuba River Land Area is not located on National Forest Land, and therefore, no USFS VQOs have been identified for this Land Area. Englebreit Reservoir stands at an elevation of 527 feet with surrounding lands reaching heights of 1,200 feet. The Land Area is visible from the Englebright Lake Recreation Area. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project. State Highway 20 is the nearest highway, located to the south of the Land Area.

The potential development of approximately one EDU per 22 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Bundle 10: Potter Valley

Potter Valley (FERC 0077)

The Potter Valley FERC 0077 project area has been divided into two Land Areas: Van Arsdale, Reservoir/Potter Valley Powerhouse Land Area and the Lake Pillsbury Land Area.

An extensive THP was added to re-cover most of the Potter Valley property with both even and uneven age harvesting methods. It is anticipated that approximately 58 percent of the Potter Valley bundle would be designated as timber harvest land. Under an aggressive management scenario it is expected that modest amendments to the existing THPs could occur to include selection and even-aged management.

Van Arsdale Reservoir/Potter Valley Land Area. The assumed development potential for the Van Arsdale Land Area is 13 EDUs distributed across 2,057 acres, resulting in an average density of one dwelling unit per 159 acres, with additional timber harvest potential.

The Van Arsdale Land Area is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and existing land uses in Potter Valley. There are no scenic highways or designated scenic overlooks in the vicinity of the project. However, the Land Area is visible from county roads 249 and 301 (USFS, 1991b).

The potential development of approximately one EDU per 159 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Lake Pillsbury Land Area. The assumed development potential for the Lake Pillsbury Land Area is 188 EDUs distributed across 3,765 acres, resulting in an average density of one EDU per 20 acres, with acreage suitable for timber harvest.

The Lake Pillsbury Land Area is considered a key recreational resource and is partially developed with vacation homes. There are no scenic highways or designated scenic overlooks in the vicinity of the project. However, the Land Area is visible from county road 301 (USFS, 1991b).

The potential development of approximately one EDU per 20 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Timber Harvest Potential. Although there are approximately 80 acres of even-aged timber harvest planned for these Land Areas over the next five years, it does not meet the minimum threshold of 20% or more Land Area subject to timber harvest other than salvage to be considered a significant impact to aesthetic value. Therefore, the aesthetic impact would be *less than significant*.

Bundle 11: South Yuba River

South Yuba River (FERC 2310)

Kidd Lake/Cascade Lakes Land Area. The assumed development potential for the Kidd Lake/Cascade Lakes Land Area is 38 EDUs distributed across 192 acres, resulting in an average density of one dwelling unit per five acres.

Kidd Lake/Cascade Lakes is considered a key recreational resource. The Kidd Lake/Cascade Lakes Land Area is primarily undeveloped. Sensitive receptors in this Land Area are primarily recreational users. State Highway 20 is designated as a scenic highway, and State Highway 20 and Interstate Highway 80 have designated scenic overlooks in the vicinity of the project (USFS, 1995).

The potential development of approximately one EDU per five acres exceeds the significance threshold determined above, therefore it would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Meadow Lake/Fordyce Lake/Lake Sterling/White Rock Lake Land Area. The assumed development potential for the Meadow Lake/Fordyce Lake/Lake Sterling/White Rock Lake Land Area is seven EDUs distributed across 1,167 acres, resulting in an average density of one dwelling unit per 167 acres.

Meadow Lake/Fordyce Lake/Lake Sterling/White Rock Lake is identified as a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and travelers on Primary Forest Route 85 (USFS, 1995).

The potential development of approximately one EDU per 167 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Rock Lake/Lindsey Lakes Land Area. The assumed development potential for the Rock Lake/Lindsey Lakes Land Area is five EDUs distributed across 763 acres, resulting in an average density of one dwelling unit per 153 acres.

This Land Area is not located adjacent to or within view of designated or eligible scenic roadways. The Rock Lake/Lindsey Lakes Land Area is considered a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and travelers on Primary Forest Route 17.

The potential development of approximately one EDUs per 153 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Lake Valley Reservoir Land Area. The assumed development potential for the Lake Valley Reservoir Land Area is 329 EDUs distributed across 1,645 acres, resulting in an average density of one dwelling unit per five acres.

The Lake Valley Reservoir Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. I-80, State Highway 49, and State Highway 174 provide access into and adjacent to this Land Area (USFS, 1995).

The potential development of approximately one EDU per five acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Lake Spaulding/Drum Penstock Forebay Land Area. The assumed development potential for the Lake Spaulding/Drum Penstock Forebay Land Area is 2,396 EDUs distributed across 9,585 acres, resulting in an average density of one dwelling unit per four acres.

Lake Spaulding/Drum Penstock Forebay Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. I-80 and SR-20 provide access into and adjacent to this Land Area[6]. Portions of the Land Area are visible from these roadways.

The potential development of approximately one EDU per four acres exceeds the significance threshold determined above, therefore development could result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Dutch Flat-Bear River North of Rollins Reservoir Land Area. The assumed development potential for the Dutch Flat-Bear River North of Rollins Reservoir Land Area is 517 EDUs distributed across 2,067 acres, resulting in an average density of one dwelling unit per four acres.

The Dutch Flat-Bear River North of Rollins Reservoir Land Area is primarily undeveloped and identified as a key recreation resource area. Portions of the Land Area are visible from I-80. Sensitive receptors in this Land Area include recreational users and travelers along I-80 (USFS, 1995).

The potential development of approximately one EDU per four acres exceeds the significance threshold determined above, and therefore development could result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Rollins Reservoir/Bear River Land Area. The assumed development potential for the Rollins Reservoir/Bear River Land Area is 12 EDUs distributed across 47 acres, resulting in an average density of one dwelling unit per four acres.

The Rollins Reservoir/Bear River Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. State Highways 49, 174 and I-80 provide access into and adjacent to this land area. Portions of this Land Area are visible from these roadways.

The potential development of approximately one EDU per four acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Halsey Forebay/Lake Arthur Land Area. The assumed development potential for the Halsey Forebay/Lake Arthur Land Area is 357 EDUs distributed across 713 acres, resulting in an average density of one dwelling unit per two acres.

The Halsey Forebay/Lake Arthur Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users and travelers along I-80. Portions of this Land Area are visible from this roadway.

The potential development of approximately one EDU per two acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Rock Creek Lake/Auburn Land Area. The assumed development potential for Rock Creek Lake/Auburn Land Area is 198 EDUs distributed across 198 acres, resulting in an average density of one dwelling unit per one acre.

The Rock Creek Lake/Auburn Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users and travelers on I-80 and State Highway 49 (USFS, 1995). Portions of this Land Area are visible from these roadways.

The potential development of approximately one EDU per one acre exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Folsom Lake Land Area. The assumed development potential for Folsom Lake Land Area is four EDUs distributed across 19 acres, resulting in an average density of one dwelling unit per five acres.

The Folsom Lake Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. I-80 and State Highway 49 are to the northwest of this Land Area. Portions of this Land Area are visible from these roadways.

The potential development of approximately one EDU per five acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Timber Harvest Potential. There is no new timber harvest planned for the South Yuba River Bundle.

Bundle 12: Chili Bar

Chili Bar (FERC 2155)

American River-Chili Bar/Slab Creek Reservoirs Land Area. The assumed development potential for American River-Chili Bar/Slab Creek Reservoirs Land Area is four EDUs distributed across 158 acres, resulting in an average density of one dwelling unit per 40 acres.

The American River-Chili Bar/Slab Creek Reservoirs Land Area is primarily undeveloped and identified as a key recreation resource area. State Highway 193 provides access into the Land Area (USFS, 1997). Portions of this Land Area are visible from the highway. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of the project.

The potential development of approximately one EDU per 40 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Timber Harvest Potential. There is no new timber harvest planned in the Chili Bar Bundle.

Summary of Impact 15-1: Entire Drum Regional Bundle

Land Development and Lighting

Of the fourteen Land Areas analyzed in the Drum Regional Bundle, land development would result in potentially significant impacts to the existing aesthetics of the following Land Areas: Kidd Lake/Cascade Lakes, Lake Valley Reservoir, Lake Spaulding/Drum Penstock Forebay, Dutch Flat-Bear River North of Rollins Reservoir, Rollins Reservoir/Bear River, Halsey Forebay/Lake Arthur, Rock Creek Lake/Auburn, and Folsom Lake (all in Bundle 11). Adherence to Mitigation Measure 15-1a and 15-1b would reduce impacts to a *less than significant* level.

Timber Harvest

For the 14 Land Areas analyzed in the Drum Regional Bundle, timber harvest activities would result in *less than significant* impacts to the existing aesthetics of the Drum Regional Bundle.

4.15.8.4 Impact 15-1: Motherlode Regional Bundle

Bundle 13: Mokelumne River

Mokelumne River (FERC 0137)

Tiger Creek Reservoir and Facilities Land Area. The assumed development potential for the Tiger Creek Reservoir and Facilities Land Area is 11 EDUs distributed across 1,752 acres, resulting in an average density of one dwelling unit per 160 acres.

Although this Land Area is located south and east of Highway 88, which is eligible for official scenic highway designation, vegetation and topography limit extensive views to the Land Area from this roadway. However, east of Dew Drop Fire Control Station, Highway 88 is designated a National Scenic Byway (USFS, 1997). The Tiger Creek Reservoir and Facilities Land Area is primarily undeveloped. However, portions of the Land Area are visible from Highway 88.

The potential development of one EDU per 160 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore, the aesthetic impact would be *less than significant*.

Electra Tunnel/West Point Powerhouse Land Area. The assumed development potential for the Electra Tunnel/West Point Powerhouse Land Area is six EDUs distributed across 752 acres, resulting in an average density of one dwelling unit per 126 acres.

This Land Area is located south of Highway 88 and northwest of West Point. A few defined, paved roads traverse the immediate area, including the path of the Electra Tunnel, which allow for public visibility of these areas. The Electra Tunnel/West Point Powerhouse Land Area is primarily

undeveloped. Sensitive receptors in this Land Area include recreational users and existing land uses in West Point (USFS, 1993).

The potential development of one EDU per 126 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore, the aesthetic impact would be *less than significant*.

Lake Tabeaud/Electra Powerhouse Land Area. The assumed development potential for the Lake Tabeaud/Electra Powerhouse Land Area is 150 EDUs distributed across 752 acres, resulting in an average density of one dwelling unit per five acres.

This Land Area is located north of Highway 26 and east of Highway 49. Although vegetation and topography are limiting factors, opportunities for public views of these Land Areas occur along portions of Highway 26 and East Clinton Road (DeLorme, 1998a). Lake Tabeaud/Electra Powerhouse Land Area is primarily undeveloped.

The potential development of one EDU per five acres does exceed the significance threshold determined above, and could result in noticeable increases in light and glare. Therefore, this impact is considered potentially *significant*.

Bear River Reservoir/Lower Bear River Reservoir/Salt Springs Land Area. The assumed development potential for the Bear River Reservoir/Lower Bear River Reservoir/Salt Springs Land Area is 38 EDUs distributed across 1,506 acres, resulting in an average density of one dwelling unit per 40 acres.

This Land Area is located south and east of Highway 88, which is an official National Scenic Byway designation (USFS, 1997). Although the Bear River Reservoir/Lower Bear River Reservoir/Salt Springs Land Area is primarily undeveloped, there are several opportunities for its public viewing from Bear River and South Bear River Roads.

The potential development of one EDU per 40 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore, the aesthetic impact would be *less than significant*.

Upper and Lower Blue Lakes/Meadow Lake/Twin Lake Land Area. The assumed development potential for the Upper and Lower Blue Lakes/Meadow Lake/Twin Lake Land Area is 67 EDUs distributed across 1,338 acres, resulting in an average density of one dwelling unit per 20 acres.

This Land Area is located south and east of Highway 88, which is designated a National Scenic Byway, and immediately adjacent to the PCT. The later geographical feature allows for extensive views of these Land Areas. The Upper and Lower Blue Lakes/Meadow Lake/Twin Lake Land Area is primarily undeveloped and is a primary destination for visitors pursuing recreational activities.

The potential development of one EDU per 20 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore, the project would have a *less than significant* effect on visual quality in the Upper and Lower Blue Lakes/Meadow Lake/Twin Lake Land Area.

Timber Harvest Potential. Although there are approximately 30 acres of even-aged timber harvest planned for the Mokelumne River Bundle over the next five years, it does not meet the minimum threshold of 20% or more Land Area subject to timber harvest other than salvage to be considered a significant impact to aesthetic value. Therefore, the aesthetic impact would be *less than significant*.

Bundle 14: Stanislaus River

Stanislaus River (FERC 1061 and 2130)

The Stanislaus River FERC Land Area and associated watershed lands have been divided into two Land Areas: Stanislaus River Land Area and Lyons Reservoir/Phoenix Reservoir Land Area. Both of these Land Areas are within Tuolumne County. Currently active THP 4-99-90AMA will be harvested in year 2000 or 2001. A new THP will be submitted for the vicinity of Rushing Meadows/Lyon's Reservoir in the Lyons Reservoir/Phoenix Reservoir Land Area.

Because forest management practices in this Land Area could result in even-aged timber harvesting on large portions of the Land Area, timber harvest activities could result in changes to the visual character or visual quality within the Stanislaus River FERC-licensed and Watershed Land Areas. Visibility of timber activities from the county roads would therefore result in the aesthetic impacts considered potentially *significant*.

Stanislaus River Land Area (FERC 2130)

The assumed development potential for the Stanislaus River Land Area is 37 EDUs distributed across 1,362 acres, resulting in an average density of one dwelling unit per 37 acres.

This Land Area is located adjacent to Highway 108. Although vegetation and steep canyon topography are limiting factors, intermittent views of the Land Area are prevalent. The Land Area is primarily undeveloped. The communities of Twain Harte, Mi-Wuk Village, and Long Barn are located on Highway 108 and adjacent to the northern portion of the Land Area (DeLorme, 1998a). Sensitive receptors in this Land Area include recreational opportunities and existing land uses in these communities.

The potential development of one EDU per 37 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Stanislaus River Land Area.

Lyons Reservoir/Phoenix Reservoir Land Area (FERC 1061)

The assumed development potential for the Lyons Reservoir/Phoenix Reservoir Land Area is ten EDUs distributed across 347 acres, resulting in an average density of one EDU per 35 acres.

The potential development of one EDU per 35 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Lyons Reservoir/Phoenix Reservoir Land Area.

Bundle 15: Merced River

Merced Falls (FERC 2467)

The Merced Falls Land Area. The assumed development potential for the Merced Falls Land Area is one EDU distributed across eight acres, resulting in an average density of one dwelling unit per eight acres, and no new timber harvest is planned. The Merced Falls Land Area is primarily undeveloped.

This Land Area is not located adjacent to or within view of designated or eligible scenic roadways. The potential development of one EDU per eight acres does not exceed the significance threshold described above, nor would it result in a noticeable increase in light and glare. Therefore, the project would have a *less than significant* effect on visual quality in the Merced Falls Land Area.

Summary of Impact 15-1: Entire Motherlode Regional Bundle

Land Development and Lighting

Of the eight Land Areas analyzed in the Motherlode Regional Bundle, land development would result in a *potentially significant impact* only to the existing aesthetics of the Lake Tabeaud/Electra Powerhouse Land Area (Bundle 13). Adherence to Mitigation Measures 15-1a and 15-1b would reduce impacts to a *less than significant* level.

Timber Harvest

For the eight Land Areas analyzed in the Motherlode Regional Bundle, timber harvest activities would result in *potentially significant impacts* to existing aesthetics of Land Areas of the Stanislaus River Bundle. Adherence to Mitigation Measures 15-1c would reduce impacts to a *less than significant* level.

4.15.8.5 Impact 15-1: Kings Crane-Helms Regional Bundle

Bundle 16: Crane Valley

Crane Valley (FERC 1354)

Bass Lake Land Area. The assumed development potential for the Bass Lake Land Area is 104 EDUs distributed across 208 acres, resulting in an average density of one dwelling unit per two acres.

The Bass Lake Land Area is primarily undeveloped and is identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users and existing vacation homes. There are no scenic highways, wild and scenic rivers, or designated scenic overlooks in the vicinity of this project. The Land Area is accessed via Bass Lake Road (DeLorme, 1998a). Portions of the Land Area would be visible from this road.

The potential development of approximately one EDU per two acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore, this impact is considered potentially *significant*.

Manzanita Lake (San Joaquin No. 3) Land Area. The assumed development potential for the Manzanita Lake Land Area is 246 EDUs distributed across 492 acres, resulting in an average density of one dwelling unit per two acres.

The Manzanita Lake Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. There are no scenic highways or designated scenic overlooks in the vicinity of the project. The Land Area is accessed via Auberry Road (DeLorme, 1998a). This Land Area is not visible from this roadway.

The potential development of approximately one EDU per two acres exceeds the significance threshold determined above. Therefore the project would have a *significant* effect on visual quality in the Land Area.

San Joaquin No. 2 Land Area. The assumed development potential for the San Joaquin No. 2 Land Area is 24 EDUs distributed across 243 acres, resulting in an average density of one EDU per ten acres.

The San Joaquin No. 2 Land Area is not considered a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area include recreational users. There are no scenic highways or designated scenic overlooks in the vicinity of the project. The Land Area is accessed via secondary highways and forest roads. The Land Area is not visible from this roadway.

The potential development of approximately one EDU per ten acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore, the project would have a less than significant effect on visual quality in the Land Area.

A.G. Wilson Land Area. The assumed development potential for the A.G. Wilson Land Area is six EDUs distributed across 61 acres, resulting in an average density of one dwelling unit per ten acres.

A.G. Wilson Land Area is not considered a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area are primarily recreational users. There are no scenic highways or designated scenic overlooks in the vicinity of the project. The Land Area is accessed via secondary highways and forest roads. The Land Area is not visible from these roadways.

The potential development of approximately one EDU per 10 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Timber Harvest Potential. Although there are approximately 100 acres of even-aged timber harvest planned for these Land Areas over the next five years, this does not meet the minimum threshold of 20 percent or more Land Area subject to timber harvest other than salvage to be considered a significant impact to aesthetic value. Therefore, the aesthetic impact would be *less than significant*.

Bundle 17: Kerckhoff

Kerckhoff (FERC 0096)

Kerckhoff Reservoir Land Area. The assumed development potential for the Kerckhoff Reservoir Land Area is 91 EDUs distributed across 182 acres, resulting in an average density of one dwelling unit per two acres.

Kerckhoff Reservoir Land Area is identified as a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area include recreational users. The Land Area is accessed via forest roads (DeLorme, 1998a). The Land Area is not visible from the roadways.

The potential development of approximately one EDU per two acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore, this impact is considered potentially *significant*.

Auberry Service Center Land Area. The assumed development potential for the Auberry Service Center Land Area is two EDUs distributed across 18 acres, resulting in an average density of one dwelling unit per nine acres.

This Land Area is not located adjacent to or within view of designated or eligible scenic roadways. The Auberry Service Center Land Area is not considered a key recreational resource and is primarily undeveloped. Sensitive receptors in this Land Area include recreational users and existing land uses in Auberry. The Land Area is accessed via Route 168. The Land Area is not visible from this roadway.

The potential development of approximately one EDU per nine acres does not exceed the significance threshold determined above. Therefore this impact is considered potentially *less than significant*.

Timber Harvest Potential. There is no new timber harvest planned for this bundle.

Bundle 18: Kings River

Kings River (FERC 2735)

Wishon Reservoir Land Area. The assumed development potential for the Wishon Reservoir Land Area is 150 EDUs distributed across 750 acres, resulting in an average density of one dwelling unit per five acres.

The Wishon Reservoir Land Area is primarily undeveloped and identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. The Land Area is accessed via forest roads (DeLorme, 1998b). The Land Area is not visible from the roadways.

The potential development of approximately one EDU per five acres exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Keller Ranch Land Area. The assumed development potential for the Keller Ranch Land Area is three EDUs distributed across 121 acres, resulting in an average density of one dwelling unit per 40 acres.

Keller Ranch Land Area is primarily undeveloped and not identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. Forest roads provide access to this Land Area (DeLorme, 1998b). The Land Area is not visible from the roadway.

The potential development of approximately one EDU per 40 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Timber Harvest Potential. The project could result in low intensity harvest near Lake Wilson; this would be a *less than significant* impact in this area.

Bundle 19: Tule River

Tule River (FERC 1333)

Tule River Land Area. The assumed development potential for the Tule River Land Area is 45 EDUs distributed across 45 acres, resulting in an average density of one dwelling unit per one acre.

The Tule River Land Area is primarily undeveloped and is not identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users. The Land Area is accessed via Route 190 (DeLorme, 1998b). The Land Area is not visible from the roadway.

The potential development of approximately one EDU per one acre exceeds the significance threshold determined above, and therefore would result in a noticeable increase in light and glare, changing the existing character of the area. In addition, development could take place adjacent to or within view of a sensitive public viewing area. Therefore this impact is considered potentially *significant*.

Timber Harvest Potential. No new timber harvest is planned for this bundle.

Bundle 20: Kern Canyon

Kern Canyon (FERC 0178)

Kern Canyon Land Area. The assumed development potential for the Kern Canyon Land Area is 30 EDUs distributed across 664 acres, resulting in an average density of one dwelling unit per 22 acres.

The Kern Canyon Land Area is primarily undeveloped and not identified as a key recreation resource area. Sensitive receptors in this Land Area include recreational users and existing land uses in Bakersfield. The Land Area is accessed via Route 178 (DeLorme, 1998b). The Land Area is not visible from the roadway.

The potential development of one EDU per 22 acres does not exceed the significance threshold determined above, nor would it result in noticeable increases in light and glare. Therefore the project would have a *less than significant* effect on visual quality in the Land Area.

Timber Harvest Potential. No new timber harvest is planned for this bundle.

Summary of Impact 15-1: Entire Kings-Crane Helms Regional Bundle

Land Development and Lighting

Of the ten Land Areas analyzed in the Kings Crane-Helms Regional Bundle, land development activities would result in potentially significant impacts to the existing aesthetics of four Land Areas within the Crane Valley, Kerckhoff, and Kings River Bundles. Adherence to Mitigation Measures 15-1a and 15-1b would reduce impacts to a *less than significant* level.

Timber Harvest

Of the five bundles analyzed in the Kings Crane-Helms Regional Bundle, timber harvest activities would result in *less than significant* impacts to the existing aesthetics of the bundles.

4.15.8.6 Evaluation of Impact 15-1 to Entire System

Visual impacts could result if developable lands are built upon in a way that make development visible from off-site or that change the character of the area as compared to its surroundings. Building siting, massing of buildings, building materials and colors, and lighting can all produce visual impacts. Local bundles where potentially significant impacts were identified include bundles 1, 2, 6, 7, 11, and 13.

Timber harvesting can lead to visual effects if done on a large scale or using clear cut methods. Local bundles where timber harvesting could have a potentially significant impact include bundles 7, 14, 16, 17, and 18.

4.15.8.7 Impact 15-1: Mitigation Measures

Mitigation Measures Identified in this Report

Implementation of Mitigation Measures 15-1a, 15-1b, and 15-1c would reduce significant impacts to less than significant, and further reduce less than significant impacts. Alternatively, implementation of Alternate Mitigation Measures 15-a, 15-1b, and 15-1c would eliminate the impact altogether.

Mitigation Measure 15-1a: For all bundles, new development shall be clustered away from scenic resources and public parks and recreational areas. The scale, massing, height, materials, colors, and textures of buildings shall be designed to harmonize with neighboring development. New development shall be screened from public view by maintaining 50-foot buffers from any designated scenic highway and by developing or retaining visual barriers, such as trees and bushes, to maintain the natural character of public viewsheds to the greatest degree feasible.

Mitigation Measure 15-1b: For all bundles, prior to approval of any new land use development, an exterior lighting plan shall be prepared and submitted to the appropriate Planning and Building

Agency for review and approval, and measures specified therein to reduce light and glare shall be implemented.

Mitigation Measure 15-1c: In order to mitigate timber harvest impacts associated with Impact 15-1, all timber cutting, other than salvage, shall be screened from public view by maintaining 200 foot buffers from any designated scenic highway, key recreation resource area, residence, and/or designated scenic resource area.

Alternate Mitigation Measures 15-1a, 15-1b, and 15-1c: As an alternative to Mitigation Measures 15-1a, 15-1b, and 15-1c, 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.

4.15.8.8 Impact 15-1: Level of Significance After Mitigation

Less than significant.

4.15.9 IMPACT 15-2: IMPACT, ANALYSIS, AND MITIGATION MEASURES

Impact 15-2: The project could degrade visual character due to operational changes in reservoir levels resulting in substantial draw down of reservoirs during the peak recreational season (Labor to Memorial Day).

4.15.9.1 Evaluation of Impact 15-2 to Entire System

All five regional bundles include reservoirs, which could be substantially drawn down beyond baseline conditions during peak recreational season (Memorial Day to Labor Day) would result in a degraded visual character along the shore. Typical aesthetic effects resulting from drawn down under baseline conditions include:

- Lower water levels exposing barren, un-natural appearing shores (e.g., bathtub ring) and discolored wave wash near shorelines (e.g., exposed red soils producing reddish, muddy, and often murky waters);
- Exposed tree stumps, pipes, and lake bottom debris (e.g., trash, etc.); and
- Exposed dock pilings.

For this reason, it is concluded that aesthetic impacts to the Shasta, DeSabla, Drum, Motherlode, and Kings Crane-Helms Regional Bundles from operational changes in reservoir levels would be *potentially significant*.

4.15.9.2 Impact 15-2: Mitigation Measures

Mitigation measures addressing reservoir levels in Section 4.6, Recreation, would mitigate aesthetic impacts resulting from a substantial reservoir draw down to a less than significant level.

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