

7.9 Land Use

7.9.1 Overview

This section describes land use and management practices pertinent to Yuba County Water Agency's (YCWA or Licensee) Yuba River Development Project (Project). The Project is located on the west slope of the Sierra Nevada on the main stem Yuba River; the North Yuba River; and the Middle Yuba River, including Oregon Creek, a tributary to the Middle Yuba River. The majority (98.3 percent) of the total area within the existing Federal Energy Regulatory Commission (FERC) Project Boundary¹ is in Yuba County with *de minimis* portions in Sierra and Nevada counties proximate to the Our House Diversion Dam, 1.3 percent and 0.4 percent, respectively. About 55 percent of the area within the existing FERC Project Boundary is located on National Forest System (NFS) land managed by the United States Department of Agriculture Forest Service (Forest Service) as the Plumas and Tahoe national forests (PNF and TNF, respectively).

In addition to this overview, this section contains two subsections: Section 7.9.2, Regional Context; and Section 7.9.3, Project-Specific Land Use Information. Section 7.9.2 includes general information regarding land use and management in the Project Vicinity.² Specific areas covered include: 1) land use and management on private land; 2) land use and management on public land; 3) Wild and Scenic Rivers and Wilderness Areas; 4) river segments included in the United States Department of Interior (USDOI), National Park Service (NPS) Nationwide Rivers Inventory (NRI); 5) United States Army Corps of Engineers (USACE) jurisdictional wetlands; and 6) Federal Emergency Management Authority (FEMA) designated floodplains. Section 7.9.3 focuses on the land use and management within the existing FERC Project Boundary. Areas covered include: 1) land ownership; 2) land use and management by Project development; 3) Project-related land use permits and easements; 4) Licensee's vehicular access routes to Project facilities; 5) known Project-related wildfires and Licensee's policies regarding fire prevention and suppression; 6) public safety related to Project facilities; 7) law enforcement in the Project Area;³ 8) restrictions to Project waters and lands; 9) use of herbicides and pesticides; and 10) use of cloud seeding.

This Land Use section does not discuss either recreation or socio-economic resources, which are discussed in Sections 7.8 and 7.11 of this Pre-Application Document (PAD), respectively. Laws and regulations promulgated that are pertinent to hydroelectric project resource management are summarized in Section 4.0, Major Applicable Laws.

¹ The existing FERC Project Boundary is the area that Licensee uses for normal Project operations and maintenance, and is shown in Exhibits G, J, and K of the current license.

² For the purposes of this document, Project Vicinity is defined as the area surrounding the Project on the order of a United States Geological Survey (USGS) 1:24,000 topographic quadrangle.

³ For the purposes of this document, the Project Area is defined as the area within the FERC Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25 mile of the FERC Project Boundary).

7.9.2 Regional Context

7.9.2.1 Private Land

Since the majority of private land within the existing FERC Project Boundary is located in Yuba County, the discussion in this section focuses on private land in Yuba County.

Of the 409,600 acres of land comprising Yuba County, 77 percent is in private ownership and the remaining 23 percent is administered by public agencies (Table 7.9.2-1).

Table 7.9.2-1. Distribution of public and private lands in Yuba County.

Public Agency or Private Ownership	Number of Parcels	Average Acreage of Parcels	Total Acreage per Agency/Owner	Ownership as a Percentage of County
Bureau of Land Management	23	70	1,597	0.4
United States Army Corps of Engineers	12	52	614	0.2
Department of Defense	120	192	22,938	5.6
Forest Service	233	189	43,827	10.7
State of California	122	157	19,251	4.7
Yuba County Water Agency	51	85	4,301	1.1
Private (or other)	31,285	10	317,032	77.4
Total			409,600	100.0

Source: Yuba County 1994

The predominant land uses in Yuba County are agriculture (170,872 acres), forested lands (34,200 acres), extractive/industrial (8,320 acres), commercial/research and development park (2,492 acres), public lands (83,696 acres), military installation (23,938 acres), and urban/communities (86,082 acres). Private land use is managed by the county in accordance with the 1994 Yuba County General Plan, and the county zoning ordinances. The General Plan is currently in the process of being updated and provides for six land use classifications in the Project Vicinity.

Table 7.9.2-2. Yuba County Zoning Ordinance land use categories in the Project Vicinity.

Land Use Categories	Description
GF – General Forest	Growing and harvesting of forest products, grazing of livestock, single-family residence, and accessory buildings.
FR – Forest Recreation	Provide low intensity recreational opportunity that also maintains natural environment.
TPZ – Timberland Preserve Zone	Implement the Forest Taxation Reform Act (1976) and the California Timberland Productivity Act (1982).
Rural Agriculture	Provides for residence and development of crops, management of game preserves.
A/RR – Agricultural/Rural Residential Zone	Preserves the rural character and amenities of lands best utilized for low-density residential development such as single-family residence, growing and harvesting agricultural crops or products, aquaculture, and game preserves.
RZ - Recreational Zone	Land containing natural or potential park and recreation features such as amusement parks, campgrounds, boat sales, restaurants, employee housing, and hydroelectric power generation facilities.

Source: Yuba County 2008c

7.9.2.2 Public Land

This section describes land use on public land in the Project Vicinity. The section is divided by land management agency. Federal and state-owned public lands are generally not subject to county jurisdiction.

7.9.2.2.1 Forest Service Managed Lands

The Forest Service manages two national forests in the Project Region:⁴ the TNF and PNF. Each of these forests is described below. The Forest Service manages these forests in accordance with their respective Land and Resource Management Plans (LRMPs), which establish standards and guidelines (USFS 1990 and USFS 1988). The LRMPs set two levels of management direction, one is forest-wide, and the other is area-specific. With respect to forest-wide management, direction comes from forest-wide goals, objectives, standards, and guidelines. Area-specific direction is set forth in specific management areas that emphasize application of appropriate standards, guidelines, and practices as described below and in Section 7.9.3.

Tahoe National Forest

TNF was initially established in 1891 by President Benjamin Harrison as a 136,335-acre area within the Sierra Reserve. With the addition of the Yuba Forest Reserve in 1904 and the Tahoe Forest Reserve in 1905, TNF grew to encompass 800,000 acres (1,250 square miles) within Sierra, Nevada, and Placer counties. The TNF specific management areas in the Project Area are the Oregon, Forty-Niner, and Bullards Management areas, managed by the Yuba River Ranger District.

Plumas National Forest

PNF was established as the Plumas Forest Reserve by the General Land Office (GLO) in 1905. In 1906, the forest was transferred to the Forest Service, and in 1907, it became a national forest. In 1908, a portion of Diamond Mountain National Forest was added. The PNF comprises 1,146,000 acres (1,791 square miles) of which 62,402 acres (92.5 square miles) are found in northern Sierra and northeastern Yuba counties. The PNF specific management area in the Project Area is the Challenge Management Area, managed by the Feather River Ranger District.

7.9.2.2.2 Bureau of Land Management Managed Lands

Although there are no USDOJ Bureau of Land Management (BLM) managed lands in the Project Area, BLM administers public lands in the Project Region as part of the Sierra Resource Management Area. The Sierra Resource Management Area encompasses approximately 230,000 acres of public land within Alpine, Amador, Calaveras, Colusa, El Dorado, Mariposa, Merced, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Sutter, Tuolumne, and Yuba counties (BLM 2007). BLM manages these resource management areas in accordance with the Sierra

⁴ For the purposes of this document, the Project Region is defined as the area surrounding the Project on the order of a county or national forest.

Resource Management Plan (SRMP). A final SRMP and the accompanying Environmental Impact Statement were released in May 2007. The SRMP was developed to address necessary administrative changes and the increase in consumptive uses. BLM is to coordinate resource protection protocols between Nevada and California agencies. Four alternatives were considered in the SRMP evaluation: No Action (Alternative A); Emphasis on Environmental Protection (Alternative B); Emphasis on Recreation and Consumptive Uses (Alternative C); and Balance of Environmental Protection with Recreation and Consumptive Uses (Alternative D). There are no Areas of Critical Environmental Concern proposed near the Project Area in Yuba, Sierra and Nevada counties.

7.9.2.2.3 Public Land Administered by the USACE

The USACE owns, operates and administers two areas in the Project Region, the Englebright Dam Area and Daguerre Point Dam Area. Each of these areas is described below.

Englebright Dam and Reservoir

Englebright Dam was constructed in 1941 by the USACE to trap sediment derived from hydraulic mining operations in the Yuba River watershed. Hydraulic mining in the Sierra Nevada was halted in 1884, but resumed on a limited basis until the 1930s (during the Great Depression) in accordance with the California Debris Commission guidance and regulations. Although hydraulic mining in the upper Yuba River watershed was not resumed after the construction of the dam, historical mine sites contribute sediment to the river, which Englebright Dam entrains. The Englebright Reservoir is used primarily for recreation (boat-in camping) and hydropower.

USACE's Englebright Reservoir has a capacity of 70,000 ac-ft of which 45,000 ac-ft is usable capacity. Since the Yuba River Development Project began operation in 1970, Englebright Reservoir water surface elevation has normally been maintained between elevations of 517 feet and 525 feet for flat water recreation on the reservoir.

Daguerre Point Dam Area

The USACE also owns and operates the 24-foot high Daguerre Point Dam on the Yuba River. This dam was built in 1906 to prevent hydraulic mining debris from washing into the Feather and Sacramento rivers and it continues to perform this function today. The dam was equipped with two fish ladders in 1937 that Chinook salmon and steelhead have difficulty, under certain flow conditions, locating and navigating. The dam was rebuilt in 1964 following damage caused by floods, and currently provides hydraulic head, or water pressure, for upstream diversions and groundwater recharge to the Yuba North and Yuba South groundwater basins. USACE's Daguerre Point Dam Fish Passage Improvement Project⁵ was developed to improve passage for all life stages of native anadromous fish, while keeping water interests whole, and with no increase in downstream flood risks.

⁵ For more information about USACE's Daguerre Point Dam Fish Passage Improvement Project, see CDWR's Fish Passage Improvement Program website. <http://www.water.ca.gov/fishpassage/projects/daguerre.cfm>.

7.9.2.3 Wild and Scenic Rivers, Wilderness Areas, and National Scenic Trails

There are no federal Wild and Scenic Rivers, Wilderness Areas and National Scenic Trails located in the Project Vicinity. However, three rivers have been proposed for designation under the Federal Wild and Scenic Rivers Act by the Forest Service (USFS and BLM 1999). These are: 1) the North Yuba River, approximately 45 miles from Yuba Pass (its headwaters) to its impoundment with New Bullards Bar Reservoir (lower elevation of proposed Wild and Scenic River unspecified by the Forest Service); 2) Canyon Creek, a tributary to the North Yuba River; and 3) the South Yuba River between Lake Spaulding and Point Defiance. Until official designation, the Tahoe and Plumas National Forest LRMPs state that these rivers are to be managed by the Forest Service as if they had wild and scenic status (USFS and BLM 1999). All of these rivers are upstream of the Project.

The nearest state-designated Wild and Scenic River is the South Yuba River from Lang Crossing to its confluence with Kentucky Creek below Bridgeport located upstream of the Project. It is managed by BLM in partnership with the Forest Service and the California Department of Parks and Recreation (CDPR).

7.9.2.4 Nationwide Rivers Inventory

The NRI is a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be of more than local or regional significance (NPS 2008). The NRI is a source of information for statewide river assessments and federal agencies involved with stream-related projects. None of the NRI-listed river segments occur in the Project Area or downstream of the Project.

7.9.2.5 USACE-Jurisdictional Wetlands

Wetlands that meet the criteria of "waters of the United States" are managed under the jurisdiction of the USACE and the United States Environmental Protection Agency (EPA) pursuant to Section 404 of the federal Clean Water Act (CWA). The definition developed by the USACE considers those areas which "*...are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*" as wetlands. Under the USACE definition, all three of the following conditions must be present (CWIS 1998):

- a dominance of wetland plants
- hydric soils, those soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season
- wetland hydrology

Wetlands that meet these criteria may exist within the Project Vicinity and are within the jurisdiction of the USACE. Wetland types and acreages are discussed in the Wetlands, Riparian, and Littoral Habitat section of this PAD (Section 7.6). Within the existing FERC Project Boundary, approximately 60 acres of wetland/riparian habitat, 4,635 acres of open-water habitat,

and more than 4 miles of linear drainages and perennial and ephemeral streams may qualify as jurisdictional wetlands under Section 404 of the federal CWA.

7.9.2.6 FEMA Floodplains

Maps of FEMA floodplains within the Project Vicinity are presented at the end of this section as Attachment 7.9A. A review of the FEMA flood maps for the Project Vicinity indicated that 3.5 acres near Narrows 2 Powerhouse are within the FEMA 100 year flood plain. The remaining area within the existing FERC Project Boundary either is outside of both the 100- and 500-year flood plains or is not mapped by FEMA.

7.9.3 Project-Specific Land Use Information

7.9.3.1 Area and Land Ownership within the FERC Project Boundary

Within the upper elevations of the Project Area (i.e., above 2,000 feet elevation near Camptonville and New Bullards Bar Reservoir), major landholders include the Forest Service, timber companies (e.g., Sierra Pacific Industries), and other landowners such as YCWA. Lands around mid-elevation Project facilities along the Middle Yuba River to Englebright Reservoir contain private land, and are near urban areas. Table 7.9.3.1 summarizes land ownership within the existing FERC Project Boundary by Project development.

Table 7.9.3-1. Summary of land ownership within the existing FERC Project Boundary by Project Development based on information provided by the County Assessor.

Development	Forest Service (acres)	USACE (acres)	State of California (acres)	YCWA (acres)	Other Private (acres)	Total	
						(acres)	Percent
New Colgate	4,306.2	0.0	0.0	3,243.8	214.5	7,764.5	99.5
New Bullards Minimum Flow	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0
Narrows 2	0.0	16.0	20.0	1.0	3.3	40.3	0.5
Total	4306.2	16.0	20.0	3,244.8	217.8	7,804.8	100.0
Percent	55.2	0.2	0.3	41.6	2.8	--	--

Source: Yuba County 2008a

As shown in Table 7.9.3-1, which is based on County Assessor information, none of the land within the FERC Project Boundary is public land administered by BLM.

Licensee and the Forest Service consulted regarding whether any portions of the North Yuba River downstream of New Bullards Bar Dam are public lands managed by the Forest Service. After reviewing land ownership maps and the Forest Service's GIS maps, Licensee and the Forest Service agreed that there was no public land managed by the Forest Service in the North Yuba River channel downstream of New Bullards Bar Dam (Mulder, pers. comm., 2009).

As seen in Table 7.9.3-2, the majority of the land within the FERC Project Boundary is located within Yuba County.

Table 7.9.3-2. Summary of county land within the existing FERC Project Boundary by Project Development based on the Relicensing GIS database.

Development	Yuba County (acres)	Sierra County (acres)	Nevada County (acres)	Total	
				(acres)	(Percent)
New Colgate	7,634.9	97.9	31.7	7,764.5	99.5
New Bullards Minimum Flow	>0.1	0	0	>0.1	0.0
Narrows 2	40.3	0	0.1	40.4	0.5
Total	7,675.2	97.9	31.8	7,804.9	100.0
Percent	98.34	1.25	0.41	--	--

Source: Yuba County 2008a

7.9.3.2 Land Use Management by Project Development

Land use management for each Project Development is summarized below. The summary contains information regarding standards and guidelines for lands administered by the Forest Service and land use designations for each county in which the Project development occurs. In general, these standards and guidelines provide means to mitigate adverse impacts to ensure that Forest Service goals are met for resources such as recreation, fish and wildlife habitat, minerals, soil, timber, plants, pests, facilities, air quality, cultural resources, wilderness, water, and riparian areas. Standards and guidelines are implemented at Forest Service management area levels. Standards and guidelines implemented at the Forest Service level apply to all resources throughout the Forests. Management area standards and guidelines are applied to specific land areas within NFS land. In many cases, the management standards and guidelines provide specific direction to the management of resources within each management area.

With respect to county land designations, the county designates land within its boundaries to be used in ways that are consistent with the resources found in that area.

7.9.3.2.1 New Colgate Development

The New Colgate Development consists of the following facilities and features: Our House and Log Cabin diversion dams and impoundments; Lohman Ridge and Camptonville diversion tunnels (both of which are below-ground); New Bullards Bar Dam and Reservoir; New Colgate Power Tunnel; New Colgate Penstock and Powerhouse; and some access roads to these facilities. The area within the FERC Project Boundary is about 7,764.5 acres with about 56 percent on NFS land, and 44 percent on private land, the majority of which is owned by YCWA (Table 7.9.3-1).

Our House and Log Cabin diversion dams and impoundments are located primarily on NFS land within the TNF (Appendix D, Tiles 4 and 5). The access roads within the FERC Project Boundary to these two facilities are located on both NFS land and private land. The two diversion tunnels are located on NFS land and private land. New Bullards Bar Reservoir is located on NFS land within both the TNF and PNF, and other land, much of which is owned by YCWA (Appendix D, Tiles 1 through 4 and Tile 7). New Bullards Bar Dam and access road are

located almost entirely on private land owned by YCWA (Appendix D, Tiles 7 and 8). The New Colgate Penstock and Powerhouse are located on land that is primarily owned by YCWA (Appendix D, Tile 8).

Tables 7.9.3-3 and 7.9.3-4 summarize, by Project facility, the PNF and TNF management areas standards and guidelines as they apply to the New Colgate Development, respectively.

Table 7.9.3-3. PNF Management Areas standards and guidelines for New Colgate Development facilities.

New Colgate Development Facilities	PNF Standards and Guidelines
CHALLENGE MANAGEMENT AREA (PNF LRMP 1988, PP. 4-178)	
New Bullards Bar Reservoir	<p>Recreation: Rely on the Tahoe NF to administer the reservoir and its shoreline. Maintain the Burnt Bridge Campground¹; employ Rx-6. Maintain the Skinner Trail. Ensure adequate access to the Wambo Bar area through project permit requirements.</p> <p>Visual Resources: Apply Rx-10 and Rx-14 to the Bullards Bar Reservoir and Marysville-La Porte Road.</p> <p>Wildlife: Provide suitable habitat for wintering band-tailed pigeons in TC's 306 and 307. Maintain or enhance deer winter range for the Mooretown and Downieville herds in TC's 301, 302, 303, and 343. Maintain or enhance deer summer range habitat and migration corridors for the Mooretown deer herd.</p>
New Colgate Power Tunnel and Penstock	<p>Timber: Continue current designation of Challenge Experimental Forest; employ Rx-4.</p> <p>Water: Rehabilitate the Slate and Canyon Creek watersheds to improve water quality sufficient for the beneficial uses in cooperation with Calif. DFG and other landowners.</p> <p>Minerals and materials: Recommend withdrawal from mineral entry: Slate Creek, from its junction with the North Fork of the Yuba River, upstream 0.5 mile.</p> <p>Lands: Consider making NF lands in T18, R7, sec. 28, 34 except winter deer range, available for exchange.</p> <p>Facilities: Reconstruct the Pike County lookout as a PNF microwave facility. Construct a PNF microwave facility at the Challenge RS². Construct a crossing on Deadwood Creek in association with timber access. Study exchange of the Challenge District Office, or other relocation of office, to reduce forest-wide fixed cost. Develop and implement site improvements at the Challenge Work Center to support program activities.</p>

¹ The Burnt Bridge campground has been removed.

² The Project does not use a Pike County lookout or Challenge RS for microwave communication.

Table 7.9.3-4. TNF Management Areas standards and guidelines for New Colgate Development facilities.

New Colgate Development Facilities	TNF Standards and Guidelines
OREGON MANAGEMENT AREA (TNF LRMP, 2007, PP. 305)	
Our House Diversion Dam	<p>Recreation Opportunity Spectrum: Roaded natural. Visual Quality Objective - Partial retention for the immediate foreground along the Pliocene Ridge Road and middle ground of Highway 49, modification for the remainder of the area. Maximum modification will be allowed on a case-by-case basis in areas that have a modification or maximum modification initial VQO and have herein assigned the modification VQO.</p> <p>Transportation Management Policy: Forest wide Standards and Guidelines apply.</p> <p>Off-Highway Vehicle Restrictions: Designated routes only, except closed in wildlife areas such as Plum Valley, Lohman Ridge, and Studhorse Canyon (November 1 ~ May 1). This restriction can be amended if weather conditions are such that deer are not on the winter range.</p> <p>Forest wide Standards & Guidelines: All apply.</p>
Lohman Ridge Diversion Tunnel	
Camptonville Diversion Tunnel	
FORTY-NINER MANAGEMENT AREA (TNF LRMP, 2007, PP. 257)	
Camptonville Diversion Tunnel	<p>Recreation Opportunity Spectrum: Roaded natural except for a small portion of semi-primitive motorized in the Sierra Buttes area.</p> <p>Visual Quality Objective: Retention, however, partial retention will be allowed for developed recreation sites.</p> <p>Transportation Management Policy: Forest wide Standards and Guidelines apply.</p> <p>Off-Highway Vehicle Restrictions: Designated routes only.</p> <p>Forest wide Standards & Guidelines: All apply.</p>

Table 7.9.3-4. (continued)

New Colgate Development Facilities	TNF Standards and Guidelines
BULLARDS MANAGEMENT AREA (TNF LRMP, 2007. PP. 345)	
New Bullards Bar Reservoir	Recreation Opportunity Spectrum: Rural in developed sites, Rodeo Natural in all other areas. Visual Quality Objective: Retention in foreground, as viewed from New Bullards Bar Reservoir and recreation sites. Partial retention for remainder of the area, including developed sites. Transportation Management Policy: All roads open Forest wide Standards and Guidelines apply. Off-Highway Vehicle Restrictions: Designated routes only. Forest wide Standards and Guidelines: All apply.
Camptonville Diversion Tunnel	
Recreation facilities: Hornswoggle Group Camp, Schoolhouse Family Camp, Dark Day Campground, Garden Point Campground, French Point Campground	

Table 7.9.3-5 provides a summary of the Yuba County General Plan Land Use Designations within and adjacent to the New Colgate Development. According to the Sierra County Public Land Use map, Our House Diversion Dam is situated in an area designated as Rural/Residential and the Lohman Ridge Diversion Tunnel crosses land that is Rural and Rural/Residential.

Table 7.9.3-5. Yuba County General Plan Land Use Designations for New Colgate Development facilities.

New Colgate Development Facilities	Yuba County Land Use Designation
Our House Diversion Dam	Agricultural/Rural Residential Zone 20
Lohman Ridge Diversion Tunnel	Agricultural/Rural Residential Zone 20
Log Cabin Diversion Dam	Agricultural/Rural Residential Zone 20, Timberland Preserve
Camptonville Diversion Tunnel	Agricultural/Rural Residential Zone 20
New Bullards Bar Reservoir	Reservoir
New Bullards Bar Dam	Recreational Zone
New Bullards Bar Dam Spillway	Recreational Zone
New Colgate Power Tunnel and Penstock	Recreational Zone, Agricultural/Rural Residential Zone 40, Timberland Preserve
New Colgate Powerhouse	Agricultural/Rural Residential Zone 40
New Colgate Switchyard	Agricultural/Rural Residential Zone 40
Madrone Cove Campground	Agricultural/Rural Residential Zone 40
French Point Campground	Agricultural/Rural Residential Zone 20
Garden Point Campground	Recreational Zone
Dark Day Campground	Agricultural/Rural Residential Zone 20
Hornswoggle Group Camp	Agricultural/Rural Residential Zone 20
Schoolhouse Family Camp	Agricultural/Rural Residential Zone 20
Emerald Cove Marina	Recreational Zone
Dark Day Boat Ramp	Recreational Zone

Source: Yuba County 1994

7.9.3.2.2. New Bullards Bar Minimum Flow Development

The New Bullards Bar Minimum Flow Development is comprised of the New Bullards Bar Minimum Flow Powerhouse, a below-ground penstock, and a powerhouse switchyard. The area within the existing FERC Project Boundary is about 0.1 acre, and it is located entirely on private land owned by YCWA (Table 7.9.3-1 and Appendix D, Tile 7).

Table 7.9.3-6 provides a summary of the Yuba County General Plan Land Use Designations within and adjacent to the New Bullards Bar Minimum Flow Development.

Table 7.9.3-6. Yuba County General Plan Land Use Designations for New Bullards Bar Minimum Flow Development facilities.

New Bullards Bar Minimum Flow Development Facilities	Yuba County Land Use Designation
New Bullards Minimum Flow Powerhouse	Recreational Zone
New Bullards Minimum Flow Transformer	Recreational Zone
New Bullards Minimum Flow Powerhouse Penstock	Recreational Zone

Source: Yuba County 1994

7.9.3.2.3 Narrows 2 Development

The Narrows 2 Development is comprised of the Narrows 2 Powerhouse, an above-ground penstock, a powerhouse switchyard, and an access road. The area within the existing FERC Project Boundary is about 40 acres, and it is located on a combination of USACE-administered land, State land (University of California Sierra Foothill Research and Extension Center), and private land (Table 7.9.3-1 and Appendix D, Tile 10).

Table 7.9.3-7 provides a summary of land management for the Narrows 2 Development area.

Table 7.9.3-7. Property Management Plans for Narrows 2 Development facilities.

Narrows 2 Development	Landowner	Management Plan
Narrows 2 Powerhouse Penstock	USACE	USACE. 1975. Design Memorandum No. 4 USACE's Harry L. Englebright Reservoir. Yuba River, California. Master Plan.
Narrows 2 Powerhouse	USACE	USACE. 1975. Design Memorandum No. 4 USACE's Harry L. Englebright Reservoir. Yuba River, California. Master Plan.
Narrows 2 Powerhouse Switchyard	USACE	USACE. 1975. Design Memorandum No. 4 USACE's Harry L. Englebright Reservoir. Yuba River, California. Master Plan.
Appurtenant Project facilities and features, including access roads, within the FERC Project Boundary	Univ. of CA SFREC	University of California, Agriculture & Natural Resources. 1994. Strategic Plan. Sierra Foothill Research and Extension Center.
	PG&E	Pacific Forest and Watershed Lands Stewardship Council (Stewardship Council). 2007. Land Conservation Plan. Final. November 2007

Source: USACE 1975; UCANR 1994; Stewardship Council 2007

Table 7.9.3-8 provides a summary of the Yuba County General Plan Land Use Designations within and adjacent to the Narrows 2 Development.

Table 7.9.3-8. Yuba County General Plan Land Use Designations for Narrows 2 Development facilities.

Narrows 2 Development	Yuba County Land Use Designation
Narrows 2 Powerhouse Penstock	Recreational Zone
Narrows 2 Powerhouse	Recreational Zone
Narrows 2 Powerhouse Switchyard	Recreational Zone

Source: Yuba County 1994

7.9.3.3 Project-Related Land Use Permits and Easements

Land use permits and easements obtained by Licensee for the normal operation and maintenance of the Project are listed below. Copies of each of these can be viewed on YCWA's Relicensing Website www.ycwa-relicensing.com.

- 1966 Agreement between YCWA and United States California Debris Commission for Use of Englebright Reservoir. Under this agreement, Licensee has the right to construct and maintain Project facilities including the Narrows 2 Intake, and store and release water from Englebright Reservoir, and pays the United States \$100,000 annually. The agreement expires concurrent with the FERC license, and can be extended by mutual agreement.
- 1968 Agreement between YCWA and Forest Service for Recreation on NFS Land. Under this agreement, Licensee constructed and gave title to the Forest Service recreation facilities on NFS land surrounding New Bullards Bar Reservoir, and the Forest Service agreed to maintain, operate, and replace the facilities at its expense. If the Forest Service does not have adequate funding to operate and maintain the facilities, it will issue a Special Use Permit (SUP) to Licensee for operation and maintenance of the facilities (See SUPs below). In this case, Licensee will retain the fees and charges obtained for use of the facilities, and Forest Service will not require Licensee to improve the facilities.
- 1975 Right-of-Way Easement Issued to YCWA by USACE for Narrows 2 Use of Land Englebright Reservoir. This easement allows Licensee to use public land administered by USACE for the operation and maintenance of the Narrows 2 Powerhouse and related facilities. The easement does not have a termination date.
- 1975 Right-of-Way Easement Issued to YCWA by USACE for Narrows 2 Access Road. This easement allows Licensee to use public land administered by USACE for the operation and maintenance of the Narrows 2 Powerhouse Access Road. The easement does not have a termination date.
- 1984 SUP between YCWA and Forest Service for Operation and Maintenance of Garden Point, Frenchy Point and Madrone Campgrounds (total of 40 units). This SUP was issued pursuant to the above 1968 Agreement between YCWA and Forest Service for recreation on NFS land and for the three campgrounds described above. The SUP does not include a termination date.⁶
- 2009 Agreement between YCWA and Forest Service for Operation and Maintenance of New Bullards Bar Recreation Area. This latest in a series of annual agreements describes the process by which the Forest Service provides staff and services to maintain and operate the New Bullards Bar Recreation Area and Licensee reimburses the Forest Service for 2009 operation and maintenance. The agreement describes the responsibilities and duties of Licensee and Forest Service for providing recreational opportunities at New Bullards Bar Reservoir. Under this agreement, the Forest Service and Licensee entered into an annual Collection Agreement.

⁶ Based on the 2009 Operating Agreement (USFS-TNF 2009a), the Forest Service has issued to YCWA at least three SUP amendments to the 1968 Forest Service/YCWA Recreation Agreement.

7.9.3.4 Licensee's Vehicular Access to Project Facilities for Operation and Maintenance

Licensee obtains vehicular access to Project facilities from its office in Dobbins over federal and State of California roads, county roads, and private roads. Table 7.9.3-9 contains a summary of the primary Project roads and trails, including: name (both formal and informal); length; width; surface; whether the road is gated; who maintains the road; whether the road is on federal land; pertinent maintenance levels and standards (if available); whether the road is plowed by Licensee; if Licensee uses snowcats/snowmobiles on the road; and whether the road is within the FERC Project Boundary. The roads are illustrated on 1:24,000 series Project map tile nos. 1 through 14, Figure D-1 in Appendix D.

7.9.3.5 Project-Related Wildfires and Licensee's Policy Regarding Fire Prevention and Suppression

Licensee does not have a formal policy regarding fire prevention and suppression on public land. Licensee's staff is not trained in forest fire suppression and is not required to fight fires, but instead notifies appropriate response agencies in the event of such an emergency.

Fire suppression systems and equipment are included in each Project powerhouse and building. In addition, Licensee maintains a vegetation-free defense zone of about 40 feet around each above-ground Project facility, excluding recreation facilities. The Forest Service, which maintains the New Bullards Bar Recreation Area facilities, controls vegetation in the area to minimize the risk of wildfires due to recreational activities.

Licensee adheres to local, State, and federal rules and regulations and best management practices during work. For instance, when working in Forest Service-managed land, Licensee's staff has access to axes, saws, and shovels to fight relatively small fires. If work includes burning debris, Licensee obtains necessary permits and approvals from the appropriate agency, which may require Licensee to have specialized equipment on-site and restrict burning to specific times of the year.

Licensee is unaware of any Project-caused fires in the past 10 years.

Three wildfires have occurred in the Project Vicinity in recent times: the Pendola Fire in 1997; the Williams Fire in 1999; and the Dobbins Fire in 2009. None of these fires occurred within the FERC Project Boundary or was caused by the Project or a Project-related activity, and none of the fires damaged Project facilities. Licensee cooperated fully with local fire fighting agencies during the suppression of these fires.

Table 7.9.3-9. Summary of Project facility operation and maintenance primary roads and trails.

Project Facilities	Road Description	Trails Description	In FERC Boundary (Yes/No)	Ownership Private/Public/Mixed	Width (feet)	Surface	Gated (Yes/No)	Licensee Trip Frequency	Snowmobile Use, Plowed (Yes/No)	Primary Access Road or Trail (Yes/No)
Our House Diversion Dam and Impoundment and Lohman Ridge Diversion Tunnel Intake	Accessed from Sierra Pacific Industries' Ridge Road. 1.84 miles to Our House Diversion Dam	--	Yes	Mixed, two segments on Forest Service land, no Forest Service number or SUP	12	Paved	Yes at intersection of Ridge Road and 500 feet upstream of Dam	1 RT/ day	No	Yes
Log Cabin Diversion Dam and Impoundment	From State Route 49 via Log Cabin Diversion Dam Road 1.19 miles	--	Yes	Mixed, 2 segments on Forest Service land, no Forest Service number or SUP	12	Paved	Yes, at intersection of State Route 49	1 RT/ day	No	Yes
Lohman Ridge Diversion Tunnel Outlet	Accessed by spur road along the north bank of the Log Cabin Diversion Dam Impoundment about 500 feet from the dam to the tunnel.	--	Yes	Public, on Forest Service land, no Forest Service number or Special Use Permit	NA	Unpaved	No, used as footpath	NA	NA	Yes
Garden Point Cove on New Bullards Bar Reservoir	Garden Point Cove is accessed via Garden Valley Road (approximately 3.5 miles long) from State Route 49 then Young Hill Road (aka Pendola Road) and Garden Point Cove. The site is for seasonal debris disposal.	--	Partially	Public, on Forest Service land	12	Unpaved	Yes controlled by Forest Service	2RT/ day during up to 3 weeks/year per Forest Service requirements.	No	Yes
Downstream Face of New Bullards Bar Reservoir	Accessed from Marysville Road to New Bullards Bar Dam Road 1.08 miles	--	Yes, however the first 0.9 mile of road is not in boundary	Mixed, Licensee and other private landowner	12	Paved	Yes at Marysville Road	2RT/ day	No	Yes
New Colgate Powerhouse Penstock	Accessed from New Bullards Bar Dam Road, 640 ft long	--	Yes	Mixed, private and Licensee	NA	Paved	NA	NA	NA	Yes
New Colgate Penstock Guard Valve	Accessed from Colgate Hall Road off of Lake Francis Road approximately 0.5 mile long	--	Partially	Mixed, Licensee and other private land owner (first 0.3 mile)	12	Unpaved	Yes by Licensee, private property owner and PG&E.	2 RT/ weekly	No	Yes
New Colgate Powerhouse	Accessed from Lake Francis Road (approximately 3.5 miles long) off of Old Dobbins Road via Marysville Road	--	Partially	Public, first 2.0 miles is maintained by Yuba County, and the last 1.5 miles is maintained by Licensee.	14 feet, first 2.0 miles; 12 feet, last 1.5 miles	Paved	No	1RT/ day	No	No
Narrows 2 Powerhouse and Intake	Accessed from Scott Forbes Road 2.17 miles to facility. Also a 0.18 mile long spur section from Narrows 2 Access to Narrows 2 Intake at Englebright Dam	--	Yes	Public, State of California, USACE, and Licensee. USACE issued Licensee a Right of Way Easement in 1975 for the access roads and has no termination date.	12	Paved	Yes, at Scott Forbes Road	2 RT/ month	No	Yes
New Bullards Bar Dam Compliance Monitoring Stream Flow Gage	--	Accessed from New Bullards Bar Dam Road, about 300 yards from the road to the gage station.	Partially	Public, Licensee	8	Unpaved, not maintained	No	3RT/month (by foot)	No	Yes
Narrows 2 Compliance Monitoring Stream Flow Gage	--	Accessed from Narrows 2 Powerhouse Access Road, about 400 yards from the powerhouse.	Partially	Public, USACE and Licensee	3	Unpaved, not maintained	No	1RT/month	No	Yes

-- = not applicable
NA = not available
RT = Round Trip

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7.9.3.6 Public Safety

Public and employee safety are Licensee's primary concerns. Outside of the existing license, but under FERC jurisdiction, Licensee has developed, and maintains, two plans related to public safety for the Project. These plans are a Project Public Safety Plan and an Emergency Action Plan, which are described in Section 6.4.2.4.

In addition, about once every 6 years, FERC performs a comprehensive Environmental and Public Use Inspection of the Project, which includes an overview of public safety. Licensee and all interested agencies participate in these inspections.

Licensee does not actively maintain any heliports or helipads for emergency services such as search and rescue or emergency evacuation. However, through routine use, Licensee and local helicopter providers have identified a number of locations where helicopters may safely land and take off.

Licensee is unaware of any Project-related injuries that would be "reportable" to FERC. One man was thrown from a boat on New Bullards Bar Reservoir due to rough water and subsequently died on September 5, 2001. No Project facilities or structures were involved in this unfortunate accident.

7.9.3.7 Law Enforcement

Law enforcement is a specific responsibility identified in the 2009 Annual Operating Agreement for the New Bullards Bar Recreation Area (USFS-TNF 2009a) for which Licensee annually reimburses the Forest Service through the Collection Agreement. In addition, Licensee funds local law enforcement for patrolling New Bullards Bar Reservoir during the recreation season.

Licensee is unaware of any unique law enforcement issues that would be unusual for recreation areas similar to those at New Bullards Bar Reservoir, or unusual for the other areas of the Project.

7.9.3.8 Restricted Public Access to Project Waters and Land

The Project reservoir and lands are accessible to the public with minor exceptions such as restricted access to dams, powerhouses, and switchyards for public safety reasons.

Licensee is unaware of any complaints to federal, State, or local agencies regarding access to Project waters and lands, other than that members of the public have requested vehicle access from Marysville Road (private property posted "no trespassing") to the base of New Bullards Bar Dam to put-in at that location for whitewater boating. At this time, Licensee has not agreed to allow access to this area due to safety concerns.

7.9.3.9 Use of Herbicides and Pesticides

Licensee does not apply herbicides or pesticides on NFS land.

On private land, Licensee's State-certified applicators periodically apply herbicides such as Garland or Bermuda around Project facilities.

7.9.3.10 Use of Cloud Seeding

Licensee does not cloud seed as part of the Project.

7.9.3.11 Management of Debris Collected in Reservoirs

In New Bullards Bar Reservoir, each year Licensee installs a floating debris barrier for woody debris in the North Yuba River arm of the reservoir and collects other debris as it enters in other arms of the reservoirs. In conformance to a Forest Service SUP, all the debris is stockpiled in one or more coves and the piles are then burned or otherwise disposed of in the fall with the approval of the Forest Service. If the debris is burned, appropriate Forest Service Burn Permits are obtained. Licensee estimates that on average about 25,000 cubic yards and the material is collected annually.

In Our House and Log Cabin diversion dam impoundments, most debris entering the impoundments overtops the dams and continues downstream. Some material is removed from the diversion tunnel intake trash racks, is piled on site, and burned in the fall with the appropriate approvals. The amount of collected material is minimal.

7.9.4 List of Attachments

This section has one attachment:

- Attachment 7.9A - FEMA maps.

Section 7.9

Land Use Attachment

- **Attachment 7.9A: FEMA Maps**

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