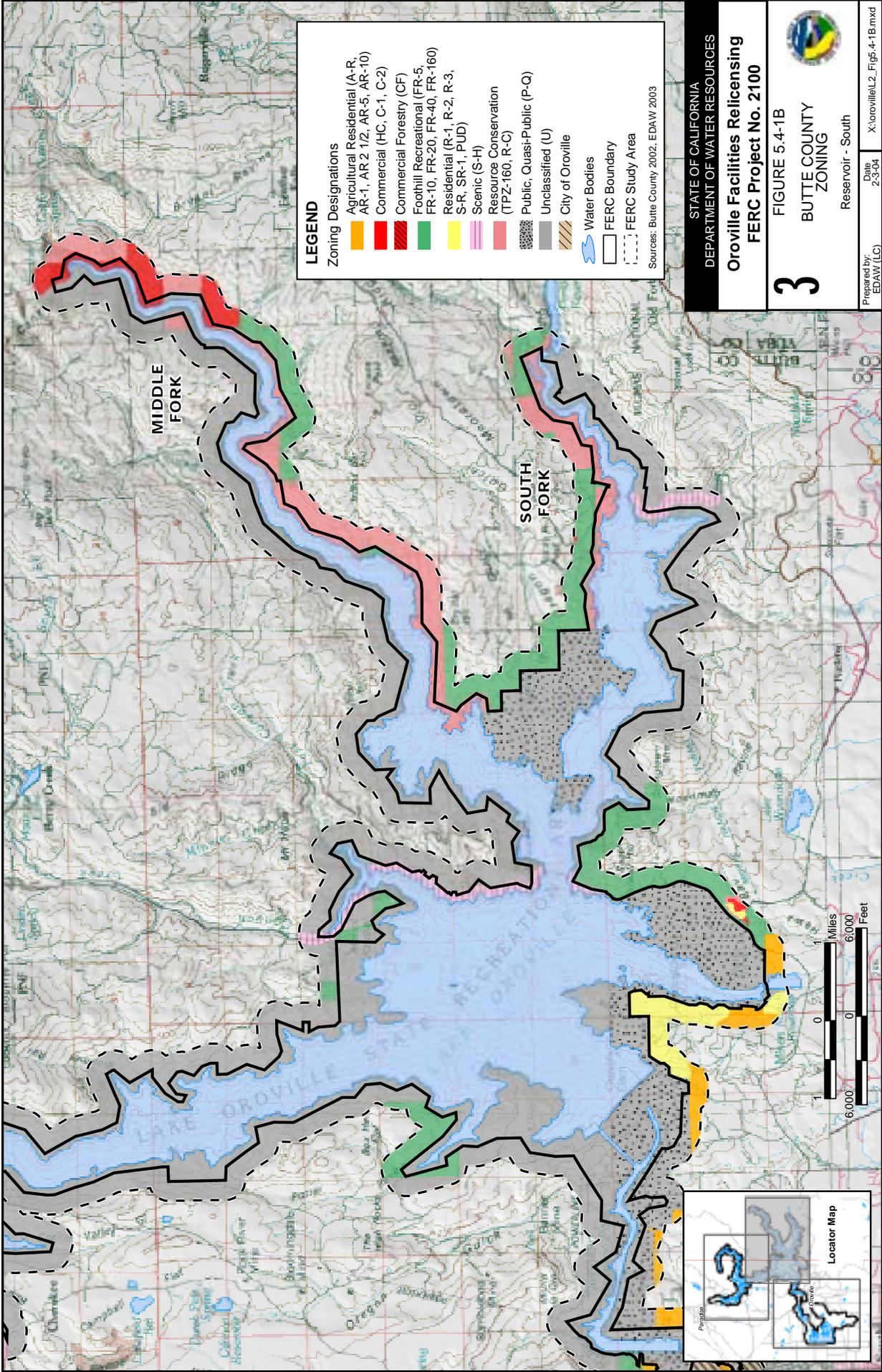


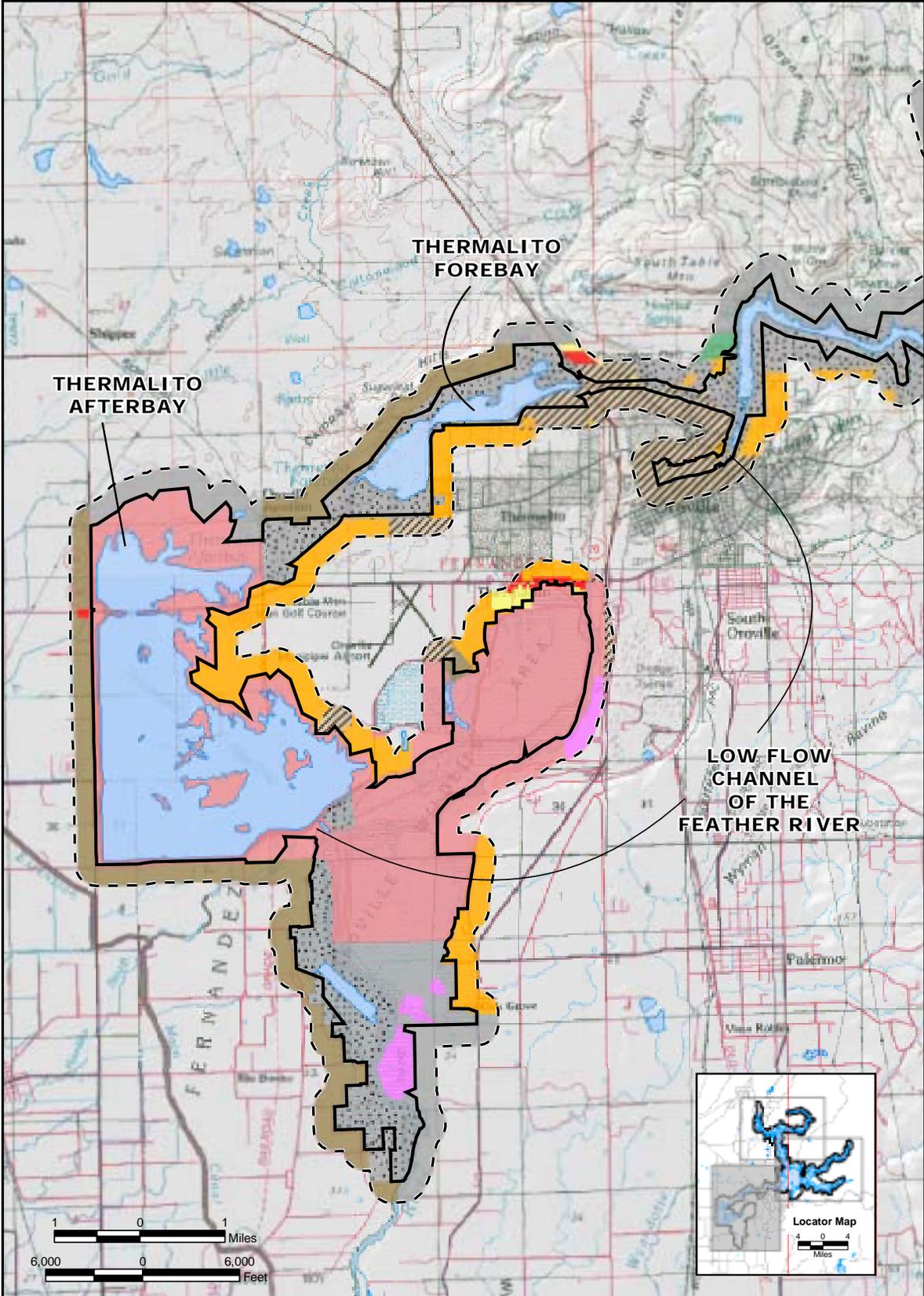
Insert Figures 5.4-1B Butte County Zoning



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Insert Figures 5.4-1C Butte County Zoning

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LEGEND	
	Agricultural (A-5, A-40, A-160)
	Agricultural Residential (A-R, AR-1, AR 2 1/2, AR-5, AR-10)
	Commercial (HC, C-1, C-2)
	Foothill Recreational (FR-5, FR-10, FR-20, FR-40, FR-160)
	Industrial (L-1, M-2)
	Residential (R-1, R-2, R-3, S-R, SR-1, PUD)
	Resource Conservation (TPZ-160, R-C)
	Public, Quasi-Public (P-Q)
	Unclassified (U)
	City of Oroville
	Water Bodies
	FERC Boundary
	FERC Study Area

Sources: Butte County 2002, EDAW 2003

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3 FIGURE 5.4-1C
 BUTTE COUNTY
 ZONING
 River - Below Oroville Dam



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Insert back of Figures 5.4-1C Butte County Zoning

Table 5.4-1. Butte County Designated Land Use.

Butte County Land Use Designation	Implementing Zone(s)
Public	P-Q and any zone which allows proposed use and public and quasi-public uses.
<u>Primary Uses:</u> Large facilities owned and operated by government agencies, including schools, colleges, airports, dams and reservoirs, disposal sites, recreation facilities, conservation areas, fire stations and other government buildings and property.	<u>Intensity of Use:</u> No standards on intensity, except where necessary to protect adjacent uses and the public welfare.
<u>Secondary Uses:</u> Hospitals and other large quasi-public uses, housing for students or on-site employees, utilities.	
Grazing and Open Land Use	TM-40 thru TM-160, A-40 thru A-160, FR-40 thru FR-160, R-C, C-F, TP-160, PA-C.
<u>Primary Uses:</u> Livestock grazing, animal husbandry, intense animal uses and animal matter processing.	<u>Intensity of Use:</u> Minimum parcel size of 40 acres. Gross density could vary from 20 to 40 acres per dwelling unit provided at least 80 percent of the total acreage of a Project is set aside for open space uses. One single-family dwelling per parcel with additional housing for on-site employees is encouraged.
<u>Secondary Uses:</u> Resource extraction and processing, forestry, plant crops, agricultural support services, outdoor recreation facilities, airports, dwellings, utilities, environmental preservation activities, public and quasi-public uses and home occupations.	
Timber Mountain Land Use	TM-40 thru TM-160, A-40 thru A-160, FR-40 thru FR-160, R-C, C-F, TP-160, and PA-C.
<u>Primary Uses:</u> Forest management and the harvesting and processing of forest products.	<u>Intensity of Use:</u> In general, the minimum parcel size is 40 acres with some exceptions. One SF DU per parcel with additional housing for on-site employees.
<u>Secondary Uses:</u> Animal husbandry, resource extraction and processing environmental preservation activities, outdoor recreation facilities, dwellings, utilities, public and quasi-public uses, home occupations, and airports.	
Orchard and Field Crops Land Use	A-20 thru A-160, RC and PQ
<u>Primary Uses:</u> Cultivation, harvest, storage, processing, sale and distribution of all plant crops, especially annual food crops.	<u>Intensity of Use:</u> Minimum parcel size of 5 acres. One single family (SF) dwelling unit (DU) per parcel with additional housing for on-site employees allowed.
<u>Secondary Uses:</u> Animal husbandry and intense animal uses, resource extraction and processing, hunting and water-related recreation facilities, dwellings, airports, utilities, environmental preservation activities, public and quasi-public uses, home occupations.	
Agricultural Residential Land Use	A-20, A-40, TM-20, TM-40, FR-20, FR-40, & C-F.
<u>Primary Uses:</u> Agricultural uses and SF dwellings at rural densities.	<u>Intensity of Use:</u> The minimum parcel size is 1 to 40 acres. One SF DU per parcel. Home occupations, farm animals, other uses and setbacks regulated to maintain rural character.
<u>Secondary Uses:</u> Animal husbandry, forestry, intense animal uses, home occupations, mining, outdoor recreation facilities, environmental preservation activities, airports, utilities, public and quasi-public uses, group quarters, care homes and transient lodging.	
Foothill Recreational Land Use	FR-5 thru FR-160, A-5 thru A-160, AR-5, SR-5, TM-5 thru TM-160, C-F, R-C, P-Q, and PA-C (5 ac. min).
<u>Primary Uses:</u> Single family dwellings at rural densities.	<u>Intensity of Use:</u> Minimum parcel size of 1 to 40 acres, with the specific density being subject to zoning factors and development criteria.
<u>Secondary Uses:</u> Agriculture uses, animal husbandry, home occupations, resource extraction and processing, forestry, outdoor recreational facilities, environmental preservation activities, airports, utilities, public and quasi-public uses, dwellings, group quarters, care homes, and other secondary uses.	

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Table 5.4-1. Butte County Designated Land Use.

Butte County Land Use Designation	Implementing Zone(s)
Low Density Residential Land Use	R-1, R-1 A & C, RT-1, RT-1A, A-SR, M-R, S-R, SR-5, SR-1, TM-1, R-MH, PA-C.
<u>Primary Uses:</u> Detached single-family dwellings at urban densities.	<u>Intensity of Use:</u> Zoning allows net parcel sizes of 1 acre to 6,500 square feet. One single-family dwelling per parcel with other residential uses limited to a maximum density of six dwelling units per gross acre.
<u>Secondary Uses:</u> Agricultural uses, animal husbandry, home occupations, outdoor recreation facilities, utilities, public and quasi-public uses, group quarters and care homes.	Home occupations, farm animals, other uses and setbacks regulated to maintain single-family residential character.
Medium Density Residential Land Use	R-1, R-1 A & C, RT-1, A-SR, S-R, SR-5, R-MH, A-R, R-2, R-3, R-4, AR-MH, MHP, PA-C.
<u>Primary Uses:</u> A mixture of urban residential uses, including, detached single-family homes, condominiums, multiple-dwelling structures, mobile home parks, group quarters and care homes.	<u>Intensity of Use:</u> Zoning allows net parcel size of 6,500 square feet. A maximum density of 13 DUs per gross acre with group quarters and care homes limited to similar densities is permitted.
<u>Secondary Uses:</u> Home occupations, professional and business offices, outdoor recreation facilities, utilities, public / quasi-public uses.	
High Density Residential Land Use	A-R, AR-MH, R-2, R-3, R-4, MH-P, PA-C.
<u>Primary Uses:</u> Higher-density urban residential uses, including condominiums, multiple-dwelling structures, mobile home parks, group quarters and care homes.	<u>Intensity of Use:</u> Zoning allows parcel sizes of 6,500 square feet. A maximum density of 20 DUs per gross acres with group quarters and care homes limited to similar densities is permitted.
<u>Secondary Uses:</u> Home occupations, professional and business offices, outdoor recreation facilities, utilities, public and quasi-public uses.	
Commercial Land Use	C-1, C-2, C-C, H-C, N-C, PA-C, R-4, S-H.
<u>Primary Uses:</u> Structures and activities providing a full range of merchandise and services to the general public.	<u>Intensity of Use:</u> Minimum parcel sizes, dimensions and setbacks to facilitate commercial development.
<u>Secondary Uses:</u> Wholesale storage and distribution, processing and manufacturing, transient lodging, dwelling and group quarters, home occupations, utilities, public and quasi-public uses.	Residential and industrial uses are limited to minimize conflicts with commercial uses.
Industrial Land Use	M-1, M-2.
<u>Primary Uses:</u> Processing, manufacturing, packaging, storage and distribution of goods and commodities.	<u>Intensity of Use:</u> Minimum parcel sizes, dimensions and setbacks to facilitate intense industrial development. Residential and light commercial uses limited to minimize conflicts with industrial uses.
<u>Secondary Uses:</u> Light commercial uses, dwellings, utilities, public and quasi-public uses.	

*Note: Refer to Figure 5.4-1A through 5.4-1C for zone references.
Source: Butte County General Plan Land Use Element 2000.*

The majority of private lands under Butte County jurisdiction outside of and adjacent to the FERC boundary have been designated on the County’s zoning map as “unclassified,” which consist primarily of constrained areas that require minimal oversight. In the northern Study Area, unclassified lands are located along the east and west banks of Lake Oroville, as well along the southern banks of the West Branch, Upper North Fork of the Feather River. Foothill Recreational, at a 40-acre minimum lot size, and Timber Preserve are the other dominant zones along the northern shore of the West Branch and Upper North Fork Feather River (Figures 5.4-1B and 5.4-1C).

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Almost half of the Butte County jurisdiction in the Middle and South Forks are in Public, Timber Preserve, Commercial Forestry, and Resource Conservation zones. Unclassified County lands cover the other half of land along these river forks. In some areas, County zoning overlaps with USFS Management Prescriptions. However, Butte County has no management authority for these federal lands.

As can be seen in Figures 5.4-1B and 5.4-1C, zoning classifications in the southern Study Area from Bidwell Canyon east to the Thermalito Afterbay and OWA are diverse in the types of development and permitted uses. County lands adjacent to the City of Oroville are zoned for more intense commercial and residential development.

The intensity of permitted uses generally decreases the farther an area is from the City, with a few exceptions. County lands adjacent to the OWA are primarily zoned for agriculture and low density residential development. However, several pockets of industrial and general commercial development are permitted adjacent to the OWA.

Scenic Highways Element

Another chapter of the General Plan relevant to the Project includes the Scenic Highways Element, which fulfills Section 65302(h) of the Government Code to develop, establish, and protect scenic highways. Scenic Highways are defined as a main public road through an area of picturesque natural landscapes. A Scenic Highway includes not only the pavement or traveled roadway but also the entire publicly owned right-of-way. Customary accessory uses usually found in the right-of-way include bridges, drainage facilities, public utilities, walkways and trails, protective planting and landscaping, rest areas, and vista points.

The primary objective of this element is the projection and enhancement of scenic areas adjacent to and visible from selected highways. Within Butte County, five stretches of roadway are identified by a “scenic highway” zone and are eligible as State Scenic Highways, although none are officially designated as scenic highways. Being “eligible” indicates that the route is shown on the Master Plan of State Scenic Highways and could someday become a State Scenic Highway but does not receive protection or enhancement benefits.

Project-Related Policies

The Butte County GP also contains a number of policies that could pertain to the operation and management of Lake Oroville. The County’s policies are primarily related to enhancement of recreational and biological resources at Lake Oroville, as well as the reduction of potential flood and seismic hazards. Butte County has indicated its strong interest in promoting more recreational development around the reservoir, and there

appears to be support for land use and zoning designations around the reservoir that would make this development possible. The County policies relevant to Lake Oroville are described below in Table 5.4-2, organized by element of the GP.

5.4.1.2 Existing County Management Conditions

Assigning zoning districts to physical locations is intended to encourage land use and development compatibility. In general, most of the private lands in the Study Area would permit development that is compatible to the adjacent public uses in the FERC boundary. However, future development compatibility may be an issue between uses permitted under County zoning and those allowed by the Project in specific areas—especially those that contain existing residential development.

In general, residential areas are typically sensitive to intense adjacent uses. A significant portion of lands within the Study Area are zoned for uses that allow rural and low density residential development. One of the most notable residential areas in the Study Area is Kelly Ridge, which consists of a large subdivision of homes immediately east and outside the boundary of the City of Oroville on a ridgeline overlooking the lake. This area, zoned by the County specifically for residential development, contains significant lake and territorial views. Development pressures are increasing in the Kelly Ridge area (pers. comm., Robert Bishop, 2003).

Other areas in the Study Area that contain scattered, low-density residential development include the Foreman and Canyon Creek areas along the Middle Fork, the Enterprise area along the South Fork, the area between the OWA and the Thermalito Forebay, as well as north of the river. The City of Oroville anticipates residential development in the latter areas, which are in close proximity to the City of Oroville, to continue to grow (pers. comm., Robert Bishop, 2003).

In addition to residential uses, pockets of private lands zoned for general commercial and industrial development are currently located adjacent to OWA lands, which are intended for wildlife conservation (Figure 5.4-1A through 5.4-1C). In these areas, the OWA is the sensitive land use. There is an inherent conflict between future commercial and industrial developments, which generate traffic, noise, human activity, and lights, and the need to protect sensitive habitats from intrusion. Buildout of these uses adjacent to the OWA would conflict with the OWA's mission.

Table 5.4-2. Butte County General Plan Policies Related to Lake Oroville.

Element	Policy Statement
Land Use	<p>Biological Habitat: Lake Oroville and Butte County's larger streams are highly valuable habitats for trout, salmon, bass, and other game fish. Several rare and/or endangered plants and animal species are found within the county.</p> <p>Policy 6.5.a. Regulate development in identified winter deer ranges to facilitate the survival of deer herds.</p> <p>Policy 6.5.b. Prevent development and site clearance other than river bank protection of marshes and significant riparian habitats.</p> <p>Policy 6.5.c. Limit development which would increase sediment loads in prime fishing waters.</p> <p>Policy 6.5.d. Regulate development to facilitate survival of identified rare or endangered plants and animals.</p> <p>Geologic Hazards: The risk of landslides is greatest in areas with steep slopes, weak rock, and high rainfall; some areas around Lake Oroville and its branches have very high risk. Erosion potential varies by the same factors but is greatest in granite areas. Findings and policies on these subjects and other geologic hazards are presented in the Safety Element adopted in 1977.</p> <p>Policy 7.4.a. Correlate allowable density of development to potential for landslides, erosion and other types of land instability.</p>
Open Space	<p>Open Space for Outdoor Recreation: The DPR manages the extensive recreation facilities around Lake Oroville and the Thermalito Bays.</p> <p>Policy L: The Butte County should encourage the DPR to complete their development of recreational facilities in the Lake Oroville State Recreation Area.</p>
Scenic Highways	<p>Eligible State Scenic Highways: Highway 70 north of Highway 149 is eligible as a State Scenic Highway, although not officially designated.</p> <p>Policy 1 Protect valuable scenic areas for enjoyment by residents and visitors;</p> <p>Policy 5 Locate and design utility structures to minimize visual impact, where economically feasible;</p> <p>Policy 6 Encourage compatible land use patterns in scenic corridors; and</p> <p>Policy 8 Consider economic impacts on property affected by a scenic highway designation.</p>
Recreation	<p>Policy 5: Lake Oroville and Facilities: Proposed development (parking, camp, picnic, boat ramp, comfort station, trailer, food, gasoline, oil, water, observation points and other facilities to serve the recreation minded public) at the following facilities: Lime Saddle, Foreman Creek, Bloomer, Craig, Kelly Ridge, Forebay, Loafer Creek, Goat Ranch, Afterbay, Potter Ravine, Fish Hatchery, etc.</p> <p>Development Agencies: County, Recreation District and State Department Parks and Recreation.</p>

Source: Butte County (2000)

Another management issue that Butte County faces is associated with public safety issues on remote County lands and on the Thermalito Afterbay. The Butte County Sheriff's Department is responsible for patrolling County lands and has also been contracted by DWR to patrol the Thermalito Afterbay. DFG has cited safety issues at the Thermalito Afterbay Outlet Fishing Area within the Butte County Sheriff's Office patrol area. The Outlet Fishing Area is a popular fishing spot with limited camping facilities where reported outbreaks between anglers have occurred. Additionally, the

DFG cites the Afterbay Outlet into the Feather River is a potential drowning hazard, particularly during higher flows.

5.4.2 City of Oroville

The City of Oroville encompasses a small portion of land within the Study Area. Parts of the City are located south of Lake Oroville and west of Saddle Dam and includes the shoreline of Lake Oroville between Saddle Dam and the northeastern edge of the Oroville Dam Spillway, Thermalito Diversion Pool, Thermalito Forebay, Thermalito Afterbay, the low flow channel of the Feather River, and the Oroville Wildlife Area (Figure 5.4-2). The City owns and manages approximately 146 acres within the Study Area. In total, roughly 1,150 acres of public and private lands (or 2 percent of the total Study Area) are located within City limits. Figure 5.4-2 illustrates the City of Oroville zoning within the City as they relate to the Study Area.

All development and activity within the City of Oroville is subject to the policies outlined in the City's GP and Zoning Ordinance. The objectives detailed in the General Plan pertaining to land use serve as a framework within which the City makes decisions relating to activities and developments within the Study Area that fall under its authority. The policies detailed in the Plan represent the City's adopted commitments to actions that are intended to implement the community's broader objectives.

5.4.2.1 City of Oroville Management Direction

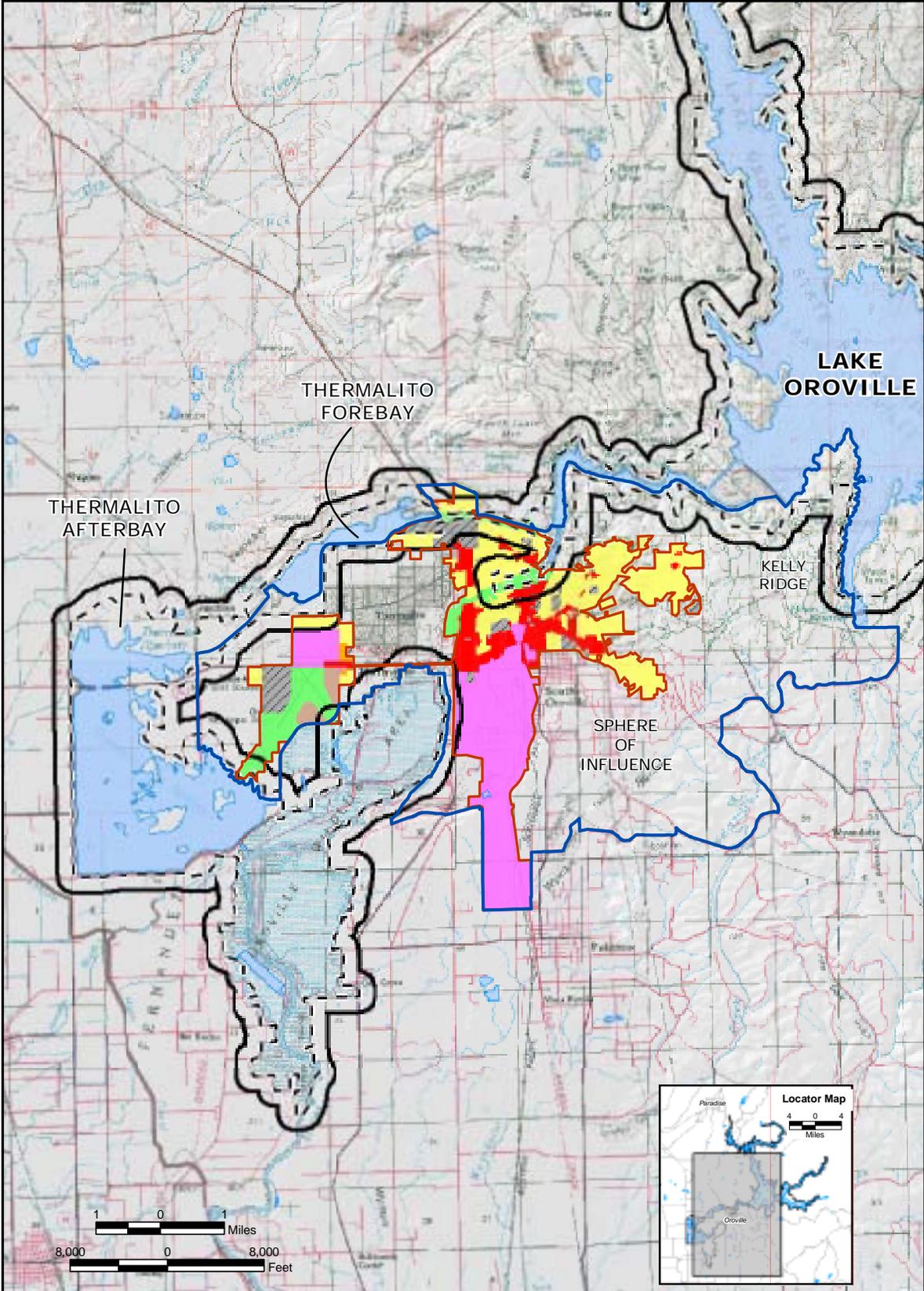
The City of Oroville GP is a statement of Oroville's vision of its long-term future, focusing on the physical components that comprise the City. The General Plan consists of eight sections, including: 1) land use; 2) design; 3) circulation; 4) open space, natural resources, and conservation; 5) public facilities and services; 6) safety; 7) noise; and 8) housing goals, objectives, policies, and designations. The objectives and goals outlined in the Oroville GP are intended to be the framework within which the City will make future decisions related to the community.

The 84 square mile planning area covered by the GP is comprised of seven planning sectors that include the Oroville Sphere of Influence (as defined by the Butte County Local Agency Formation Commission), and areas immediately to the west, south, and east. The Oroville GP directly addresses the issues of housing, conservation, recreation, industry, and circulation, as well as a number of others. Among the themes of the Oroville GP that are relevant to the Study Area are:

Growth: The Plan encourages new industries and a higher population growth rate in order to improve the City's economy.

Environmental Awareness and Conservation: The Oroville GP calls for a relatively high level of ongoing management and planning for the City’s natural and cultural resources, and encourages the conservation of oak woodlands,

Insert Figure 5.4-2. City of Oroville Zoning in the Oroville Relicensing Study Area
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LEGEND

Airport Business Park (ABP)	Unclassified/Unconstrained (U)
Agricultural Residential (AR2, AR5, AR10)	Public/Quasi-Public (PQ)
Commercial (CLM, HC, NC, C1, C1/C, C2)	Oroville City Limits
Industrial (M1, M2)	City of Oroville SOI
Residential (R1, R1/PD, R2, R3, R3/SC, RL1, RP, RP/PD, SR1, SRH, PUD)	Water Bodies
Open Space (O)	FERC Boundary
	FERC Study Area

Sources: BLM 1993, BLM 2003, EDAW 2003

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3 FIGURE 5.4-2
CITY OF OROVILLE
ZONING

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Insert Back of Figure 5.4-2. City of Oroville Zoning in the Oroville Relicensing Study Area

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wetlands, and riparian corridors, in particular, in order to enhance the quality of life in the area relative to nearby metropolitan areas.

The Land Use Element of the Oroville GP designates areas near the Project facilities as “Medium Density Residential” and “Parks.” These land use designations are described below.

Medium Density Residential. Medium density residential land uses in the Oroville Planning Area consist of single-family residential development with approximately two to six units per gross acre on land under 30 percent slope. This land use is primarily located in the Kelley Ridge Planning Sector within Oroville’s Sphere of Influence, which is outside of the city’s jurisdiction.

Parks. This land use category includes public parks, golf courses, or other appropriate uses. A recreational vehicle park or campground may be permitted as a conditional use within areas designated as Park. Within the city, this land use includes the Table Mountain Golf Course, located adjacent to the OWA in the Thermalito Planning Area. Within Oroville’s unincorporated planning area, park lands are primarily located near the Oroville Dam, and contain such recreational areas as the Bidwell Canyon Campground, the Lake Oroville Visitor Center, and the Dan Beebe trail, which are managed by the DPR.

Oroville GP policies that relate to the operation and management of Lake Oroville generally include enhancement of recreational and biological resources at Lake Oroville, as well as reducing potential flood and seismic hazards. Policies that specifically mention the Project are listed in Table 5.4-3, organized by element of the Oroville GP.

5.4.2.2 Existing City Management Conditions

The City of Oroville’s commercial center is located within the Study Area along the low flow channel of the Feather River adjacent to the FERC boundary. Currently, this area is comprised of low intensity commercial areas and park lands immediately adjacent to the river. The City intends to encourage more intense commercial development in the downtown area, south of the river and the FERC boundary, to take advantage of potential redevelopment opportunities and the creation of a scenic river walk. The City has also recently proposed a number of new parks adjacent to the FERC boundary within the Study Area (pers. comm., Robert Bishop, 2003).

Similar to residential areas within Butte County, the City of Oroville contains lands zoned for residential development within the Study Area. Although the City expects future residential development growth citywide, most of these areas currently provide for limited residential development. These residential areas are typically sensitive to intense adjacent uses and could be affected by future PM&Es.

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Table 5.4-3. City of Oroville General Plan Policies that Address the Project.

Element	Policy Statement
City Design	<p>Policy 4x: Request the state to landscape and develop the Thermalito Afterbay as a destination water recreation park which defines the western boundary of the community in accordance with the State's original master plan of recreation development associated with the FERC permit.</p> <p>Policy 4y: Encourage the efforts of the Feather River Parks and Recreation Department in the North Forebay, Nelson Ballpark expansion, and development of River Bend Park.</p>
Open Space, Natural Resources and Conservation	<p>Policy 6.11s: Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.</p> <p>Policy 6.11w: Work with the DFG to ensure the preservation and enhancement of species or resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.</p>
Safety	<p>Policy 8.10e: Monitor studies related to induced seismicity; if further studies establish a conclusive relationship between reservoir drawdown, refilling, and seismic activity, encourage the DWR to manage the Oroville Dam water regime to reduce risk (evidence thus far suggests a relationship between reservoir drawdown, refill, and subsequent seismic activity. This was seen in the 1975 Cleveland Hills earthquake, thought to have occurred after unprecedented drawdown and refilling of Lake Oroville).</p> <p>Policy 8.20m: Identify critical facilities in flood hazard areas and within the Oroville Dam inundation area, and seek ways to improve their level of protection, if possible (Critical facilities provide fire and emergency services, water, electricity, gas supply, sewage disposal, communications, and transportation).</p> <p>Policy 8.20o: In the event of dam failure on the Oroville Dam, implement emergency measures consistent with the city's Multi-hazard Functional Disaster Plan (Dam failure, while considered unlikely, is among the hazards mentioned in the City's Multi-hazard Functional Disaster Plan).</p>

Source: City of Oroville (1995).

Another challenge to the City involves underutilized industrial and commercial lands. The City currently provides an overabundance of industrial uses that has contributed to the degradation of the natural environment from neglect. Adjustments to existing land uses may improve these conditions (pers. comm., Robert Bishop, 2003).

5.5 GENERAL LAND MANAGEMENT PATTERNS IN THE STUDY AREA

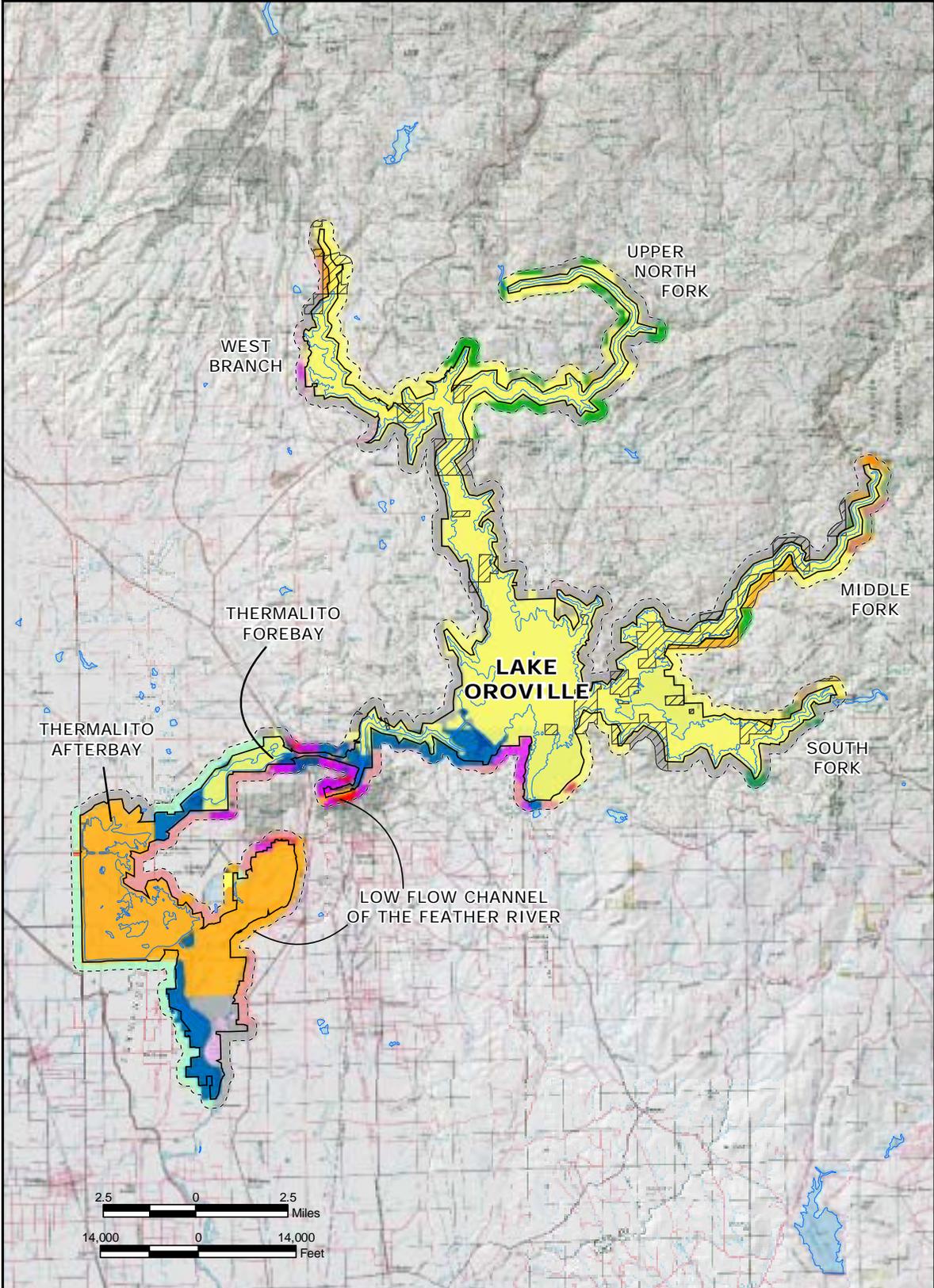
As illustrated in Figure 5.5-1, land management direction for most lands within the FERC boundary emphasizes recreation, wildlife conservation, and public facilities. Lands adjacent to the FERC boundary within the Study Area have different management directions and encourage land uses such as agricultural/rural residential development, timber preserve, conservation, recreation, and scenic lands—with the exception of areas along the Diversion Pool and Thermalito Forebay near the City of Oroville.

The following discussion focuses on the spatial distributions/pattern of land management in the Study Area. Discussing the spatial distribution pattern of land

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management offers insight and understanding of the dynamics between regional land managers and their respective approaches to land management and how they relate to

Insert Figure 5.5-1. Land Management Direction in the Oroville Relicensing Study Area
11x17



LEGEND

Land to be Transferred for Management Efficiency	Residential
Agricultural	Scenic
Timber Preserve	Public/Quasi-Public Facilities
Agricultural-Residential	Constrained
Commercial	Mineral Extraction
Conservation	Water Bodies
Industrial	FERC Boundary
Recreational	FERC Study Area

Sources: BLM 1993, BLM 2003, USFS 1994, EDAW 2003

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3 FIGURE 5.5-1

LAND MANAGEMENT
DIRECTION



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Study Area
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the relicensing process. As such, a general discussion of land management patterns by sub-areas (i.e., Lake Oroville, Diversion Pool and Thermalito Forebay, Thermalito Afterbay, and the low flow channel) is provided below.

5.5.1 Lake Oroville

Lands underlying and adjacent to the main body of Lake Oroville, as well as surface waters of the LOSRA, are managed almost exclusively for recreation use. Small areas outside of the FERC boundary but within the Study Area in the Upper North, Middle, and South Forks are unproductive forest lands (to steep terrain and difficult access) that receive minimal management by the USFS. Lands managed by BLM in these areas have been identified in the BLM's RRMP for transfer to other entities to improve management efficiency.

The Middle Fork and South Fork Feather River areas have similar management characteristics, containing a mix of lands managed by DWR, BLM, USFS, and private interests. Most of the lands along these two branches are currently managed for recreation and resource conservation, with limited areas of timber preserve. Butte County also has jurisdiction along these branches for private lands, although some of these lands are not provided with a zoning classification and continue to receive little to no management direction.

Lands located along the east, west, and south banks of the main body of Lake Oroville outside of the FERC boundary within the Study Area are owned predominantly by private interests with limited public land holdings. Most of these lands are constrained due to difficult terrain and access, although the Butte County GP does allow rural and low density residential development for much of these areas. Some of these lands do contain limited areas of residential development. The Kelly Ridge subdivision, which is zoned specifically for residential development, is the most notable residential area within the Study Area due to its density and location east of the City of Oroville. Kelly Ridge contains significant views of the lake and territory and development pressure in this area is increasing. Other areas of scattered residential development located near Lake Oroville include the Foreman and Canyon Creek areas along the Middle Fork and the Enterprise area along the South Fork.

5.5.2 Diversion Pool and Thermalito Forebay

Lands in and near the Diversion Pool and Thermalito Forebay area contain a variety of management directions, including public facility management, commercial, recreation, agriculture, residential, and conservation. Public management in this segment tends to

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be at the State and local level, with only several small Federal (BLM) surplus properties located east of Oroville Dam.

This sub-area also contains the majority of the City-managed property within the Study Area. Downtown Oroville is located within the Study Area along the southern shore of the Feather River and is zoned for public and intense commercial and residential uses. The City is also in the planning stages of improving portions of this area by establishing a scenic river walk and more intense commercial development. Lands under City and County jurisdiction to the east and west of the City of Oroville are zoned for, or permit, low density residential development. Currently, residential development is sprawling west of the City and north of the river. It is anticipated that housing developments in these areas will continue to grow and may be sensitive to Project PM&Es.

5.5.3 Thermalito Afterbay

Management in the Thermalito Afterbay area is somewhat complex. DFG is the primary land manager in this sub-area, which includes lands underlying the Afterbay as part of the Oroville Wildlife Area (OWA). However, as mentioned in Section 5.3.3.2, DWR is responsible for recreation management at the Thermalito Afterbay. DFG management direction for this area is primarily wildlife conservation and recreation. At times, the recreation uses built by the DWR in the Afterbay deters wildlife conservation efforts of the DFG, although both agencies are following the missions identified by each public agency. In addition, DWR has several third party leases (see Table 5.3-1) that may not be consistent with DFG's management direction. However, DWR supports the active management of lands through third-party leases which can improve land management accountability within the Study Area.

The area outside the FERC boundary is characterized primarily by private land owners, except for small clusters of City-owned and -managed properties and DFG-managed properties located north and south of the FERC boundary, respectively. This sub-area also contains existing scattered residential development east and north of the Afterbay. Residential development is a permitted use in this area and future residential growth is anticipated.

5.5.4 Low Flow Channel and the OWA

The low flow channel passes through parts of the OWA. Part of the low flow channel is within the FERC boundary and part is outside of the boundary. Lands within the OWA are primarily managed by DFG. DFG management direction for the OWA, which applies primarily to lands within the FERC boundary, is wildlife conservation and recreation.

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Lands in this sub-area that are located outside of the FERC boundary are managed by a mix of public and private interests, including DFG, Butte County, and the City of Oroville. Private leases, DWR management direction, and DFG management direction for some locations within this sub-area may be inconsistent at times. However, these inconsistencies could be redirected into management opportunities. For example, mineral extraction operations located within and adjacent to the OWA can create habitat as well as hinder it. Similarly, pockets of private lands zoned for general commercial and industrial development located adjacent to OWA lands may conflict with OWA management direction for wildlife conservation and recreation (Figure 5.4-1A through 5.4-1C). There may be compatibility issues between future commercial and industrial development, which generates traffic, noise, human activities, and lights, and the need to protect sensitive habitats from intrusion. In general, full development build-out of these uses adjacent to the OWA could hinder conservation efforts.

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6.0 SUMMARY AND CONCLUSIONS

{to be presented in Final Draft}

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Appendix A

Public Entity Regulatory Guidance

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Oroville Facilities Relicensing Team

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APPENDIX A

Table A-1. French Creek Management Area and Applicable Management Prescriptions' Standards and Guidelines.

Management Area Direction	Standards and Guidelines
Recreation	
Efficiently manage recreation in the Lake Oroville State Recreation Area.	Continue cooperation allowing the DPR to manage the reservoir area including Plumas National Forest lands.
Provide developed recreation facilities/programs to meet demand while reducing unit costs.	Maintain Rogers Cow Camp Campground, but operate as a self-service facility with no developed water supply. Close when major expenditure is required.
Visual Resources	
Maintain pleasing visual corridors.	Minimize the visual impact of transmission lines and hydroelectric facilities.
Wildlife	
Maintain species viability.	Provide suitable bald eagle foraging habitat along the North Fork upstream from Lake Oroville.
Water	
Protect and where necessary, improve water quality.	Maintain and construct additional erosion control works when needed to control excessive erosion and sedimentation from the French Creek basin.
Facilities	
Upgrade forest arterials and collectors.	Reconstruct the Quincy-Oroville Highway as part of the Forest Highway System. Reconstruct the Stanwood Saddle Road in cooperation with Butte County.
Management Prescriptions	Implementation
Minimal Management – Rx7	
<i>Purpose</i>	<i>Type of Lands</i>
Maintain existing physical characteristics of certain lands through low intensity management.	Areas managed under this prescription include: 1) non-forested lands; 2) non-productive forest lands; 3) productive forest lands that are not economical to manage; 4) lands with substantial instability problems; 5) lands schedule for exchange; and 6) land with significant scenic, geologic, ecologic, and cultural resource values.
<i>Direction</i>	<i>Standards and Guidelines</i>
<u>Visual Resources</u> – Maintain high Visual Quality Objectives (VQO).	Meet mapped, adopted VQOs, which may vary from site to site.
<u>Cultural Resources</u> – Protect significant cultural properties.	Develop specific mitigation plans for exchange lands.
<u>Range</u> – Maintain existing range use.	Maintain active allotments. Do not fill vacant allotments or create new allotments.
<u>Timber</u> – To protect watershed condition, special interest areas, and lands scheduled for exchange, use appropriate special cutting methods for unscheduled yields without forest regulation.	Allow harvest of timber, fuelwood, and other products on if: <ul style="list-style-type: none"> ⊖ Long term growth can be maintained; ⊖ Erosion and instability problems will not be induced or aggravated; ⊖ Unique scenic, geologic, ecologic, and significant cultural resource values are protected; and ⊖ No encumbrances are placed on lands scheduled for exchange.
<u>Special Areas</u> – Protect unique scenic, geologic, and ecologic values.	Mange those unique areas identified in the Management Area Direction to protect or enhance their values.
	<i>[Note: Need further information from USFS]</i>

Source: USFS (1988)

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Table A-2. Galen Management Area and Applicable Management Prescriptions' Standards and Guidelines.

Management Area Direction	Standards and Guidelines
Recreation	
Efficiently manage recreation in the Lake Oroville State Recreation.	Continue cooperation allowing DPR to manage the reservoir area including Plumas National Forest lands.
Provide for semi-primitive recreation.	Maintain the character of the Big Bald Rock semi-primitive area. Restrict ORV use.
Facilities	
Provide roads necessary to meet developed recreation and other demands.	Improve access to the Millsap Bar Campground on the North Fork Feather River.
Management Prescriptions	Implementation
Minimal Management – Rx7	Refer to description in Table A-1
Timber Intensive – Rx 16	Refer to description in Table A-1

Table A-3. Kellogg Management Area and Applicable Management Prescriptions' Standards and Guidelines.

Management Area Direction	Standards and Guidelines
Recreation	
Protect and enhance recreation use of the Middle Fork of the Feather River.	Manage Wildlife Scenic Zones consistent with the Wild and Scenic Rivers Act.
Provide for semi-primitive recreation.	Maintain the semi-primitive character of the Middle Fork and Bald Rock in areas without roads.
Expand and improve the trail system.	Nominate Hartman Bar Trail as a National Recreation Trail when right-of-way is secured; improve facilities to meet planned uses.
Wildlife	
Protect and improve emphasis species habitat.	Coordinate projects affecting wild trout streams with DFG. Provide suitable peregrine falcon habitat in the Bald Rock Dome area.
Facilities	
Upgrade forest arterials and collectors.	Improve the Millsap campground access road as use studies show need to meet demand.
Special Areas	
Protect unique scenic values.	Continue special management of Feather Falls Scenic Area; recommend designation of Feather Falls as a National Natural Landmark.
Protect unique scenic and botanic values.	Preserve the champion ponderosa pine adjacent to the Hartman Bar Trail.
Management Prescriptions	Implementation
Minimal Management – Rx7	Refer to description in Table A-1
Intensive Range – Rx16	
<i>Purpose</i>	<i>Type of Lands</i>
Intensify range management on certain allotments to increase forage production and consumption.	Sparsely or non-forested lands which includes approximately 15,000 acres distributed within several Management Areas.
<i>Direction</i>	<i>Standards and Guidelines</i>
Range – Expand productivity and use on	Apply intensive management methods where opportunities exist and where

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selected range allotments under intensive management.	cost-efficient, including: <ul style="list-style-type: none"> € Development of water sources, fencing, cattle guards, and corrals to control distribution; € Non-structural improvement including sagebrush conversion to grass, broadcast burning, treatment of competing vegetation such as brush or certain undesired weeds, and fertilization where appropriate.
<u>Cultural Resources</u> – Protect significant properties.	Develop a long-term inventory and appraisal strategy.
Feather Falls Scenic Area-Rx3	
<i>Purpose</i>	<i>Type of Lands</i>
To be managed for scenic value and recreation use. Other uses to be allowed if compatible with these objectives.	The Scenic Area was established in 1965 by the Regional Forester and is recommended that Feather Falls be declared a National Natural Landmark to preserve scenic beauty.
<i>Direction</i>	<i>Standards and Guidelines</i>
<u>Recreation</u> – Provide dispersed recreation. Maintain and improve developed recreation sites. Allow ORVs where user conflict or resource damage is unlikely.	Maintain ROS classes of Roded Natural and Semi-Primitive Non-Motorized. Construct recreation facilities only to meet safety and sanitary needs, but interpret cultural, ecological, and geologic features for the public. Close all trails to motorized use.
<u>Visual Resources</u> – Maintain high Visual Quality Objectives.	Meet VQO of Retention.
<i>Direction</i>	<i>Standards and Guidelines (cont'd)</i>
<u>Timber</u> – Protect scenic and recreational values. Use appropriate special cutting methods for unscheduled yields without forest regulation.	Harvest timber only when the scenic quality can be maintained or improved or to prevent disease or insect epidemic.
<u>Minerals and Materials</u> – Protect unique scenic values.	Withdraw from mineral entry.
<u>Energy</u> – Preclude hydroelectric development if all resources cannot be reasonable protected.	Maintain the natural free flowing condition of Fall River.
<u>Lands</u> – Acquire areas crucial to recreation management.	Retain existing federal ownership. Acquire those lands necessary to protect recreational and scenic quality.
<u>Law Enforcement</u> – Protect resources and forest visitors according to law.	Provide active law enforcement commensurate with use to prevent vandalism at the Feather Falls trailhead.
<u>Withdrawn – Non-Productive</u>	<i>[Note: Need further information from USFS]</i>

Source: USFS (1988)

A-4. Feather Falls Management Area and Applicable Management Prescriptions' Standards and Guidelines.

Management Area Direction	Standards and Guidelines
Recreation	
Protect and enhance recreation of the Middle Fork of the Feather River	Manage the Wild and Scenic Zones consistent with the Wild and Scenic Rivers Act.
Allow ORVs where user conflict or resource damage is unlikely	Prohibit ORVs on the Feather Falls National Recreation Trail (NRT).
Visual Resources	
Maintain pleasing visual corridors	Protect Feather Falls and Fobestown Roads viewsheds.
Wildlife	
Protect and improve emphasis species	Coordinate with the DFG when projects affect the Middle Fork Feather River

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habitat.	Wild Trout Stream.
Special Areas	
Protect unique scenic values.	Continue special management of the Feather Falls Scenic Area. Designate Feather Falls as a National Natural Landmark. Initiate a study to determine the suitability of Fall River from Nelson's Crossing to Lake Oroville for inclusion in the Wild and Scenic River System.
Management Prescriptions	Implementation
Minimal Management – Rx7	Refer to description in Table A-1
Withdrawn – Non-Productive	Refer to description in Table A-3
Feather Falls Scenic Area-Rx3	Refer to description in Table A-3
Intensive Range – Rx16	Refer to description in Table A-3
Wild and Scenic Rivers-Rx2	<i>[Note: Need further information from USFS]</i>
<i>Purpose</i>	<i>Type of Lands</i>
Intended to provide a complete spectrum of recreation experiences. Preservation of the River's free-flowing condition and the areas outstanding values are the paramount management goals.	Includes lands within the Middle Fork of the Feather River and its immediate environment, which were established as a Wild and Scenic River by Congress in 1968.
<i>Direction</i>	<i>Standards and Guidelines</i>
<u>Recreation</u> – Implement the Wild and Scenic Rivers Act and provide a variety of forest-related recreation.	Increase public understanding of the management direction for the Wild and Scenic River and manage lands according to their appropriate Recreation Opportunity Class, including scenic and wild zones.
<u>Visual Resources</u> – Maintain high visual quality objectives (VQOs).	Meet VQO of "Retention."
<u>Wildlife</u> – Protect and improve wild trout habitat.	Implement a wild trout habitat management plan and maintain sufficient flow in the river to meet needs of the Wild Trout fishery.
<u>Range</u> – Implement grazing systems to protect streams and streambanks.	Do not permit domestic livestock grazing within Wild zone.
<u>Timber</u> – Protect recreational, scenic, and fish and wildlife values. Use appropriate special cutting methods for unscheduled yields without forest regulation.	Harvest timber only to maintain or enhance use safety and scenic quality, protect special habitat, or prevent insect or disease epidemic.
<u>Lands</u> – Acquire land and easements to implement the Wild and Scenic Rivers Act and to facilitate management of other resources. Allow private uses that have public benefits.	Implement the Landownership Adjustment Plan – Wild and Scenic Zones (1978), Recreation zone (1980), and Recreation Zone Recreation Management Plan (1980). Major provisions of these plans include specific guidelines for acquisition and land exchanges. No refuse disposal is allowed. Issue permits for activities with public benefit if compatible with prescription. However, transportation corridors, including utility systems, are not allowed.
Visual Partial Retention-Rx14	<i>[Note: Need further information from USFS]</i>
Rx11, 12, and 13	<i>[Note: Need further information from USFS]</i>

Source: USFS (1988)

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