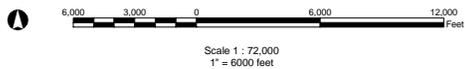


Source: DWR GIS 2003 / USGS DEM 30m / EDW 2003



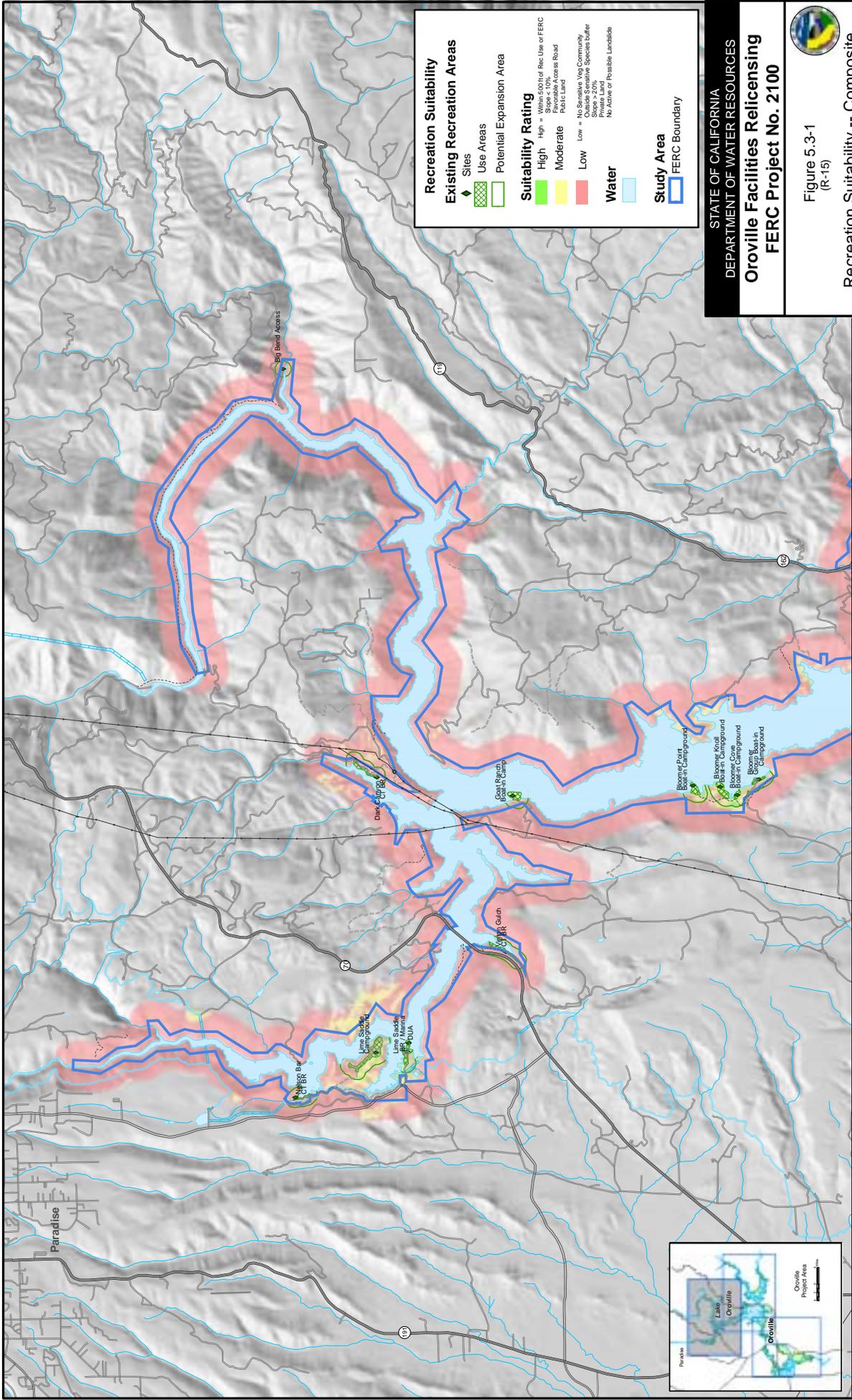
STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

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

Figure 5.2-3  
(R-15)

Summary of Constraints  
River -- Below Oroville Dam





**Recreation Suitability**

**Existing Recreation Areas**

- Sites
- Use Areas
- Potential Expansion Area

**Suitability Rating**

- High - High = Within 500' of Rec Use or FERC Slope < 10% Road or Road Right of Way
- Moderate
- Low - No Substrate Veg Community No Active or Possible Landslide

**Water**

**Study Area**

- FERC Boundary

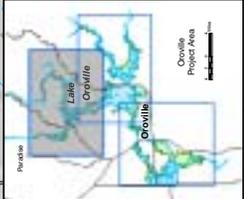
STATE OF CALIFORNIA  
 DEPARTMENT OF WATER RESOURCES  
**Oroville Facilities Relicensing  
 FERC Project No. 2100**



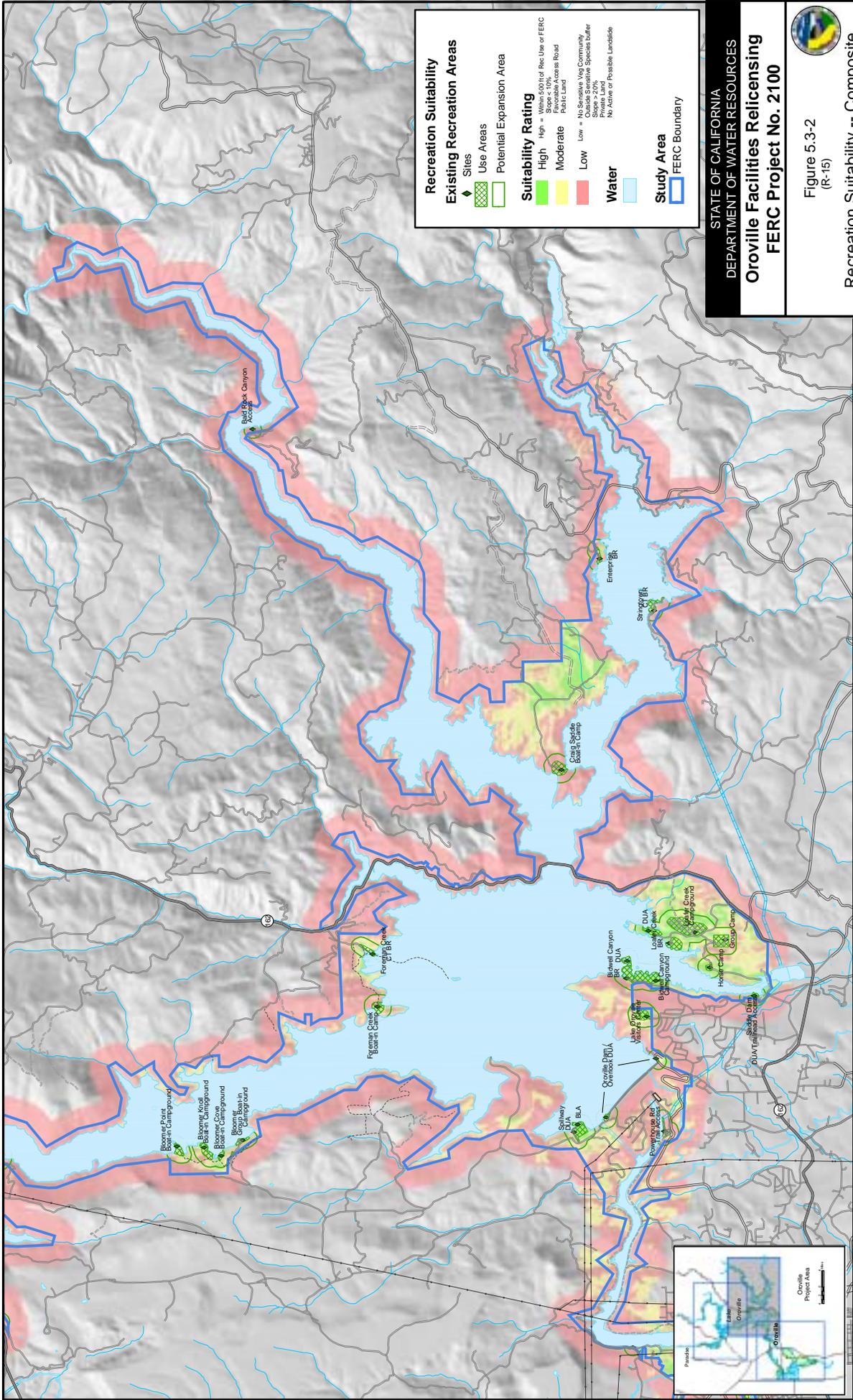
Figure 5.3-1  
 (R-15)

**Recreation Suitability -- Composite  
 Reservoir -- North**

Prepared by: PJ - EDWW, Inc.  
 Date: 2/18/04  
 File: Oroville\GIS\recreation\comp\_pos\_1a17.mxd



Source: DWR GIS 2003; USGS DEM 30m; EDWW 2003  
 Scale: 1:25,000  
 1" = 600 feet  
 0 0.500 1.000 1.500 2.000 Feet



**Recreation Suitability**

**Existing Recreation Areas**

- Sites (Green diamond)
- Use Areas (Green hatched)
- Potential Expansion Area (Green outline)

**Suitability Rating**

- High = Within 500' of Rec Use or FERC Slope < 10% = Private Road
- Moderate = Private Land
- Low = No Substantive Veg Community Slope > 20% = No Substantive Veg Community No Active or Possible Landside

**Water** (Blue)

**Study Area** (Blue outline)

**FERC Boundary** (Blue outline)

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 FERC Project No. 2100**

Figure 5-3-2  
 (R-15)

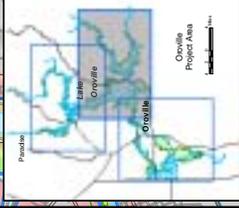
Recreation Suitability -- Composite  
 Reservoir -- South

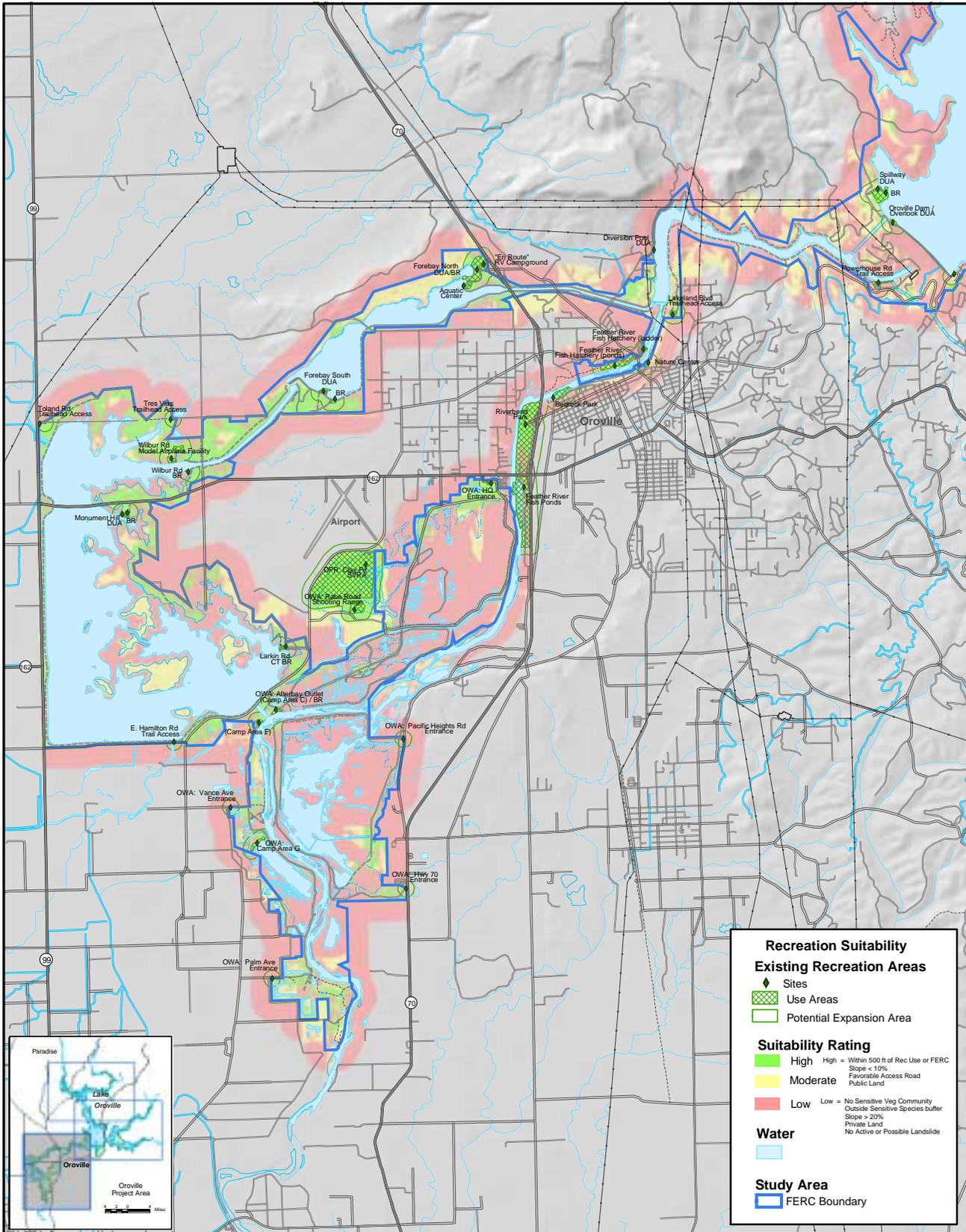
Date: 2/18/04  
 Prepared by: P.J. - EDAW, Inc.  
 Project: OrovilleFacilitiesRelicensing.compos\_1.r15.mxd

Scale: 1" = 25,000 Feet  
 1" = 6000 Feet

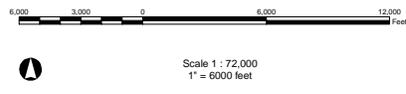
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Source: DMR GIS 2003; USGS DEM 30m; EDW/2003





Source: DWR GIS 2003 / USGS DEM 30m / EDAW 2003



**Recreation Suitability**

**Existing Recreation Areas**

- Sites
- Use Areas
- Potential Expansion Area

**Suitability Rating**

- High High = Within 500 ft of Rec Use or FERC  
Slope < 10%  
Favorable Access Road
- Moderate
- Low Low = No Sensitive Veg Community  
Outside Sensitive Species Buffer  
Slope > 20%  
Private Land  
No Active or Possible Landslide

**Water**

- 

**Study Area**

- FERC Boundary

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DEPARTMENT OF WATER RESOURCES

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

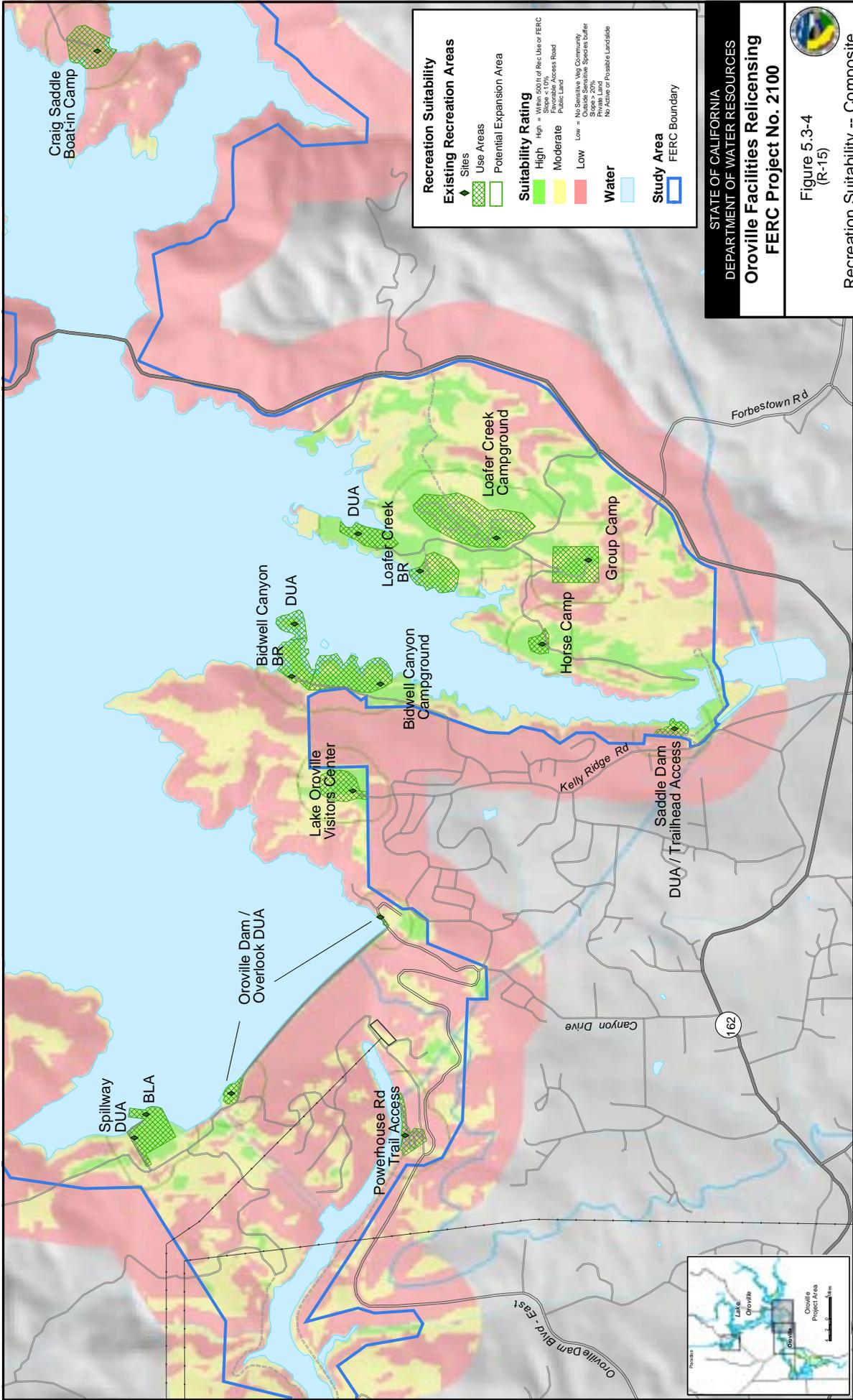
Figure 5.3-3  
(R-15)

Recreation Suitability -- Composite  
River -- Below Oroville Dam

Prepared by: PJ -- EDWA, Inc. Date: 2/18/04



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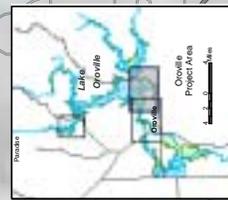


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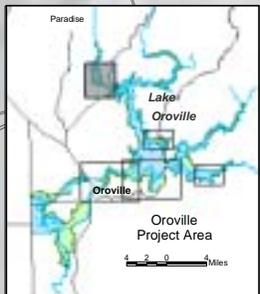
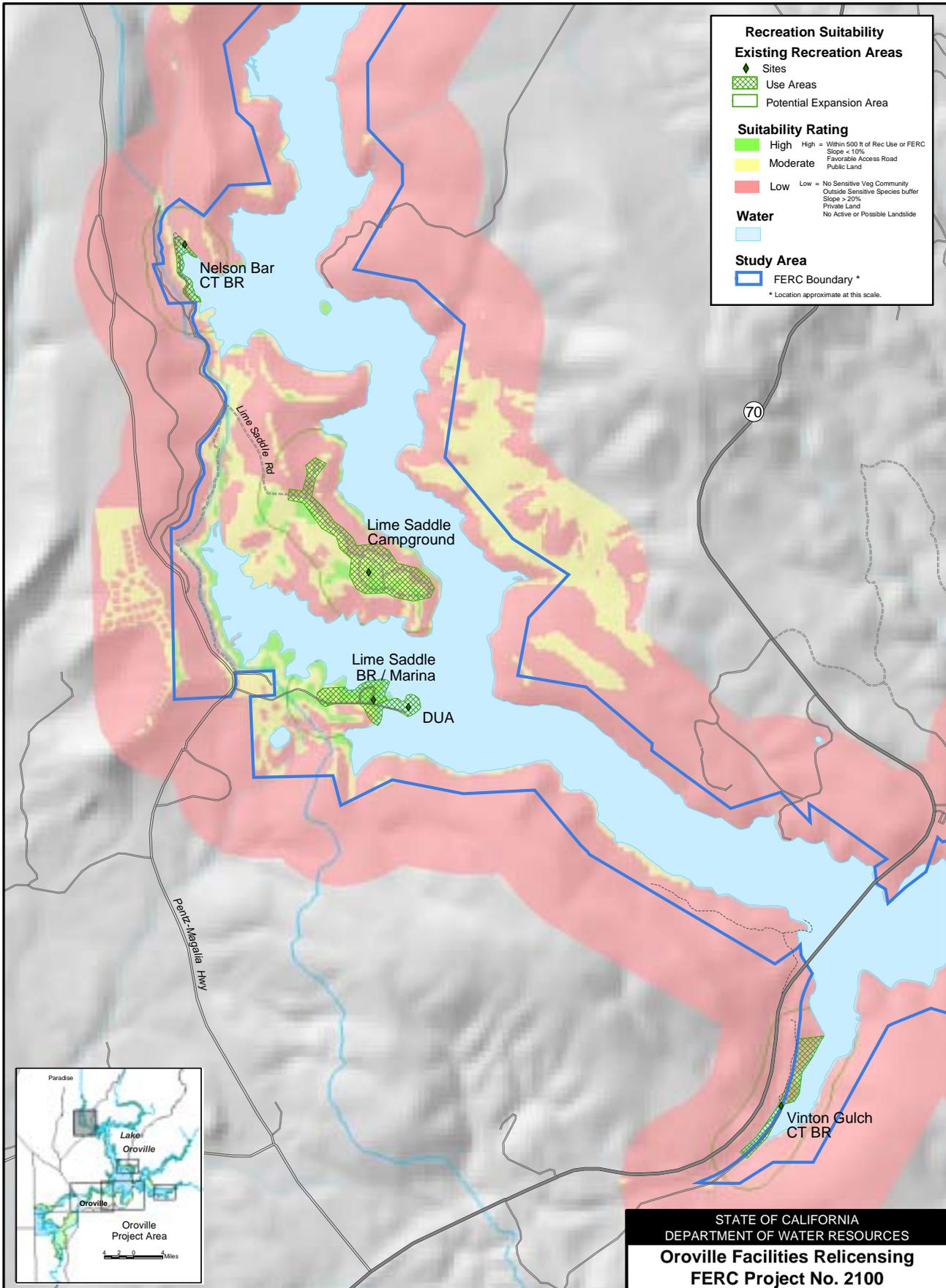
Figure 5.3-4  
 (R-15)

**Recreation Suitability -- Composite**  
 Reservoir Main Basin -- South

Prepared by: P.J. -- EDAM, Inc.  
 Date: 2/18/04  
 Position: GIS Administrator/Map Composer, TIT Project, Inc.



Scale: 1:24,000  
 1" = 2,000 Feet  
 Source: DMR GIS 2003 / USGS DEM 30m / EDAM 2003



Source: DWR GIS 2003 / USGS DEM 30m / EDAW 2003



Scale 1 : 18,000  
1" = 1,500 feet



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FERC Project No. 2100**

Figure 5.3-5  
(R-15)

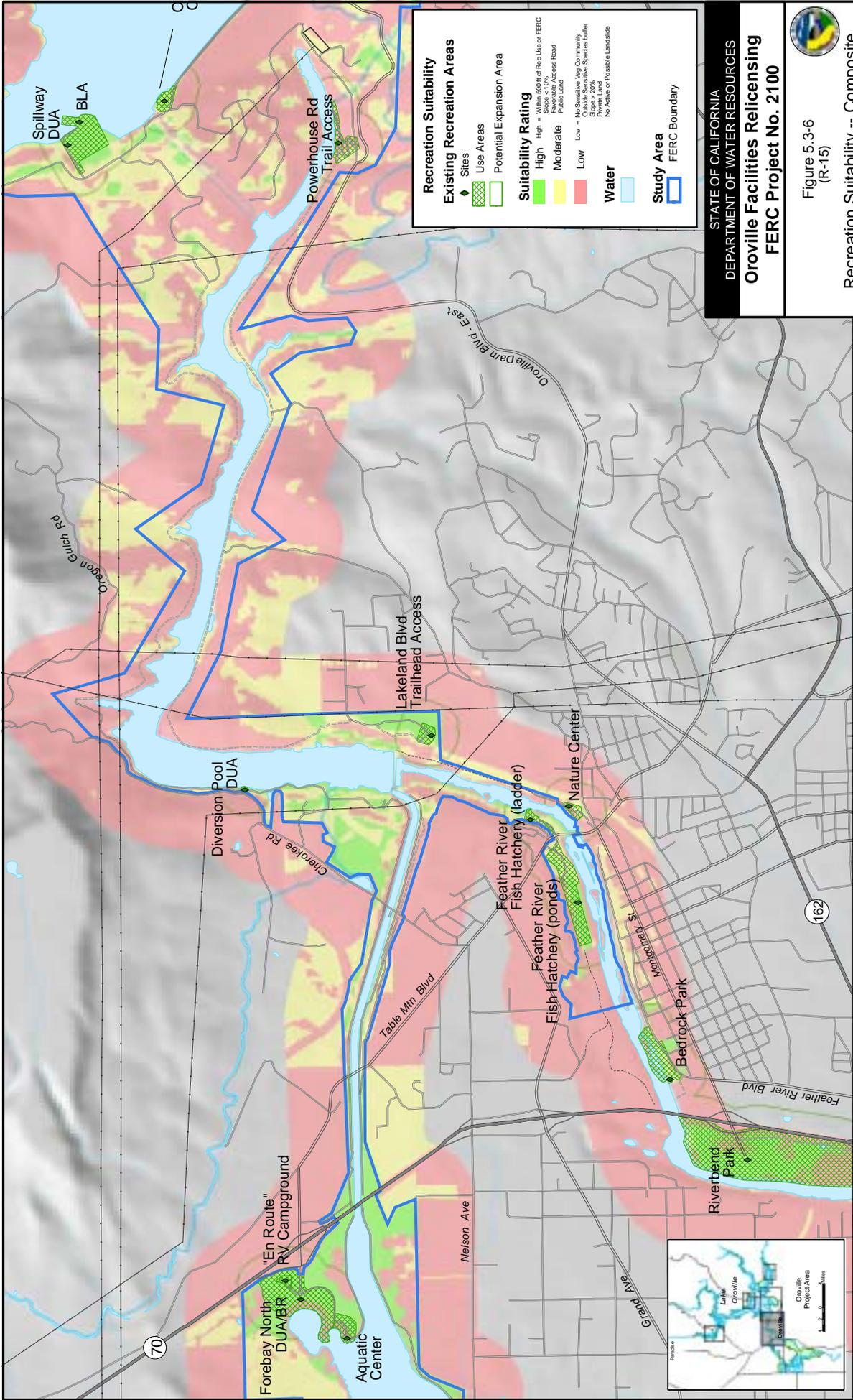


Recreation Suitability -- Composite  
Lime Saddle Area

Prepared by:  
PJ - EDAW, Inc.

Date  
2/18/04

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**Recreation Suitability**

**Existing Recreation Areas**

- Sites
- Use Areas
- Potential Expansion Area

**Suitability Rating**

- High = Within 500ft of the Use or FERC Slope > 10% Steep > 20% Public Land
- Moderate
- Low = No Sensitive Use Community Outlying Sensitive Species buffer Slope > 20% No Active or Possible Landslide

**Water**

**Study Area**

- FERC Boundary

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 DEPARTMENT OF WATER RESOURCES  
**Oroville Facilities Relicensing**  
**FERC Project No. 2100**

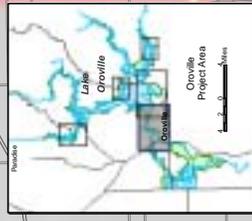
Figure 5.3-6  
 (R-15)

Recreation Suitability -- Composite  
 Diversion Pool / Feather River in Oroville

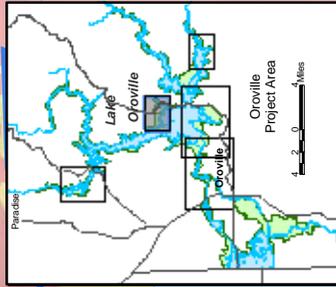
Prepared by: P.J. - EDAM, Inc.  
 Date: 2/18/04

Scale: 1:24,000  
 1" = 2,000 Feet

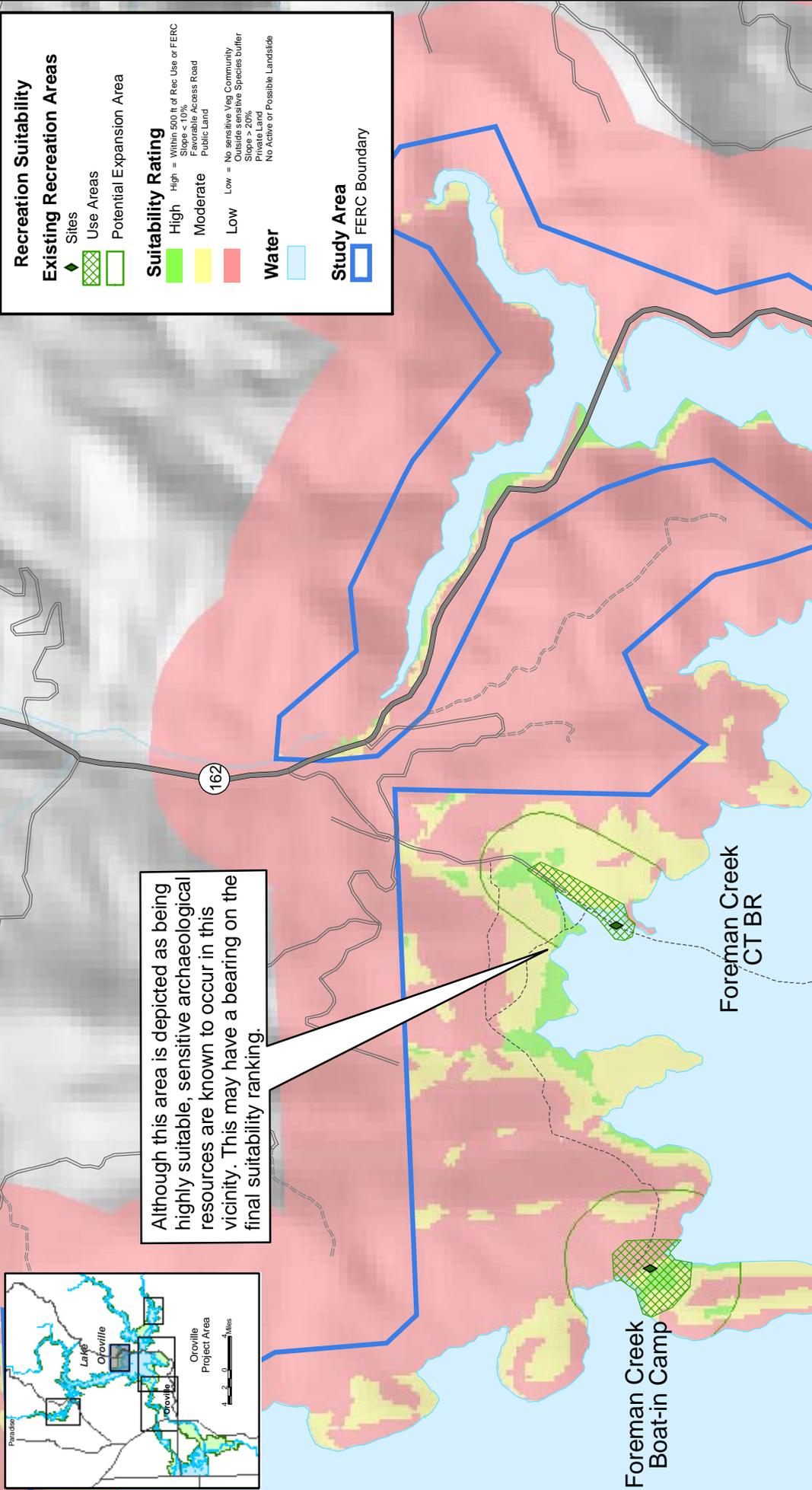
Source: DWR GIS 2003; USGS DEM 30m; EDAM 2003



POSTED ONLINE AT: [www.water.ca.gov/ferc/2100/2100\\_r15.htm](http://www.water.ca.gov/ferc/2100/2100_r15.htm)



Although this area is depicted as being highly suitable, sensitive archaeological resources are known to occur in this vicinity. This may have a bearing on the final suitability ranking.



**Recreation Suitability**

**Existing Recreation Areas**

- Sites (Green diamond with cross-hatch)
- Use Areas (Green cross-hatch)
- Potential Expansion Area (Green outline)

**Suitability Rating**

- High (Light Green): Within 500 ft of Rec Use or FERC Slope < 10% Favorable Access Road Public Land
- Moderate (Yellow)
- Low (Red): No sensitive Veg Community Exclude sensitive Species Buffer Slope > 10% Private Land No Active or Possible Landslide

**Water** (Light Blue)

**Study Area** (Blue outline)

**FERC Boundary** (Thick blue outline)

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

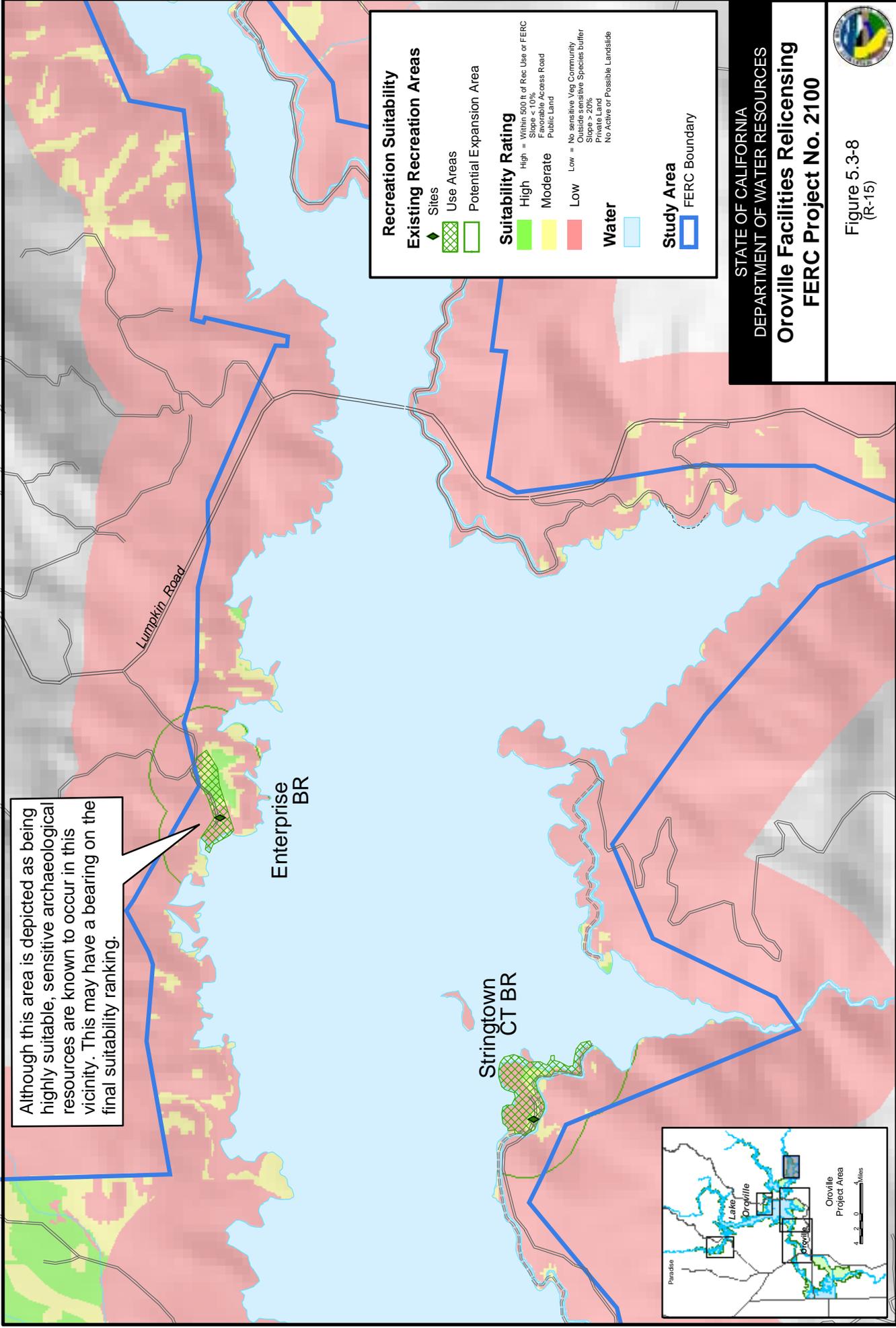


Figure 5.3-7  
 (R-15)

Recreation Suitability -- Composite  
 Foreman Creek Car-top BR

Prepared by: PJ -- EDAW, Inc. Date: 2/18/04  
 P:\2000\0616\glaw\m\glaw\_out\_compose\_1118\_wentbk.mxd

Although this area is depicted as being highly suitable, sensitive archaeological resources are known to occur in this vicinity. This may have a bearing on the final suitability ranking.



**Recreation Suitability**

**Existing Recreation Areas**

- Sites
- Use Areas
- Potential Expansion Area

**Suitability Rating**

- High = Within 500 ft of Rec Use or FERC Favorable Access Road Public Land
- Moderate
- Low = No sensitive Veg Community Outside sensitive Species buffer Private Land No Active or Possible Landside

**Water**

**Study Area**

- FERC Boundary

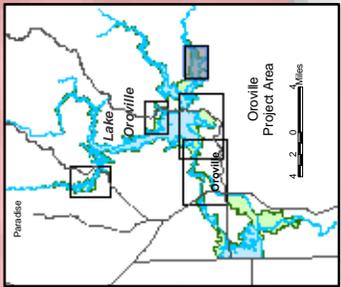
STATE OF CALIFORNIA  
 DEPARTMENT OF WATER RESOURCES  
**Oroville Facilities Relicensing  
 FERC Project No. 2100**

Figure 5.3-8  
 (R-15)

Recreation Suitability -- Composite  
 Enterprise BR



Prepared by: PJ -- EDAAW, Inc.  
 Date: 2/18/04  
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Source: DWR GIS 2003 / USGS DEM 30m / EDAAW 2003



[back of figures page]

## 6.0 ANALYSIS

Areas of high and moderate suitability for potential recreation site development make up only a very small portion of the study area. Given the steep terrain of the study area, this should be expected. About 12 percent of the study area was classified as highly or moderately suitable for potential recreation site development, while areas of low suitability account for over 58 percent of the study area (Table 5.3-1).

Review of the opportunity and constraint maps reveals that unfavorable slope and private ownership factors eliminate a large portion of the lands in the Lake Oroville area. In the study area below Oroville Dam, slope is generally more suitable for potential recreation site development, but private ownership and sensitive biological factors, such as raptor nests, riparian corridors, and wetland vegetation, combine to make large portions of land less favorable for potential major recreation site development. Biological constraints restrict suitability along much of the eastern shoreline of the Thermalito Afterbay, as well as most of the lands within the OWA. While this assessment should not be interpreted to conclude that recreation development is impossible in areas of low suitability, it does indicate that construction and mitigation costs are likely to be prohibitively expensive. For example, in order to develop a site with extreme slope for recreational purposes, the costs for leveling the site and erosion mitigation would be much higher than at an area with low to moderate slope.

As previously mentioned, GIS mapping is not the best method to identify small dispersed recreation sites, as user access and preference often define such areas. Additionally, change in reservoir pool level affects how areas may be used for recreational purposes. However, moderate and highly suitable areas near the shoreline may likely be adequate for dispersed recreation use, including the inundation zone. These areas exist along the Lake Oroville shoreline, particularly along the west shore of the lower North Fork portion of the reservoir (Figure 5.3-1), and in the vicinity of the Kelly Ridge area (Figures 5.3-2 and 5.3-5). Additional areas along Thermalito Afterbay and the Feather River (Figure 5.3-3) also may be appropriate for dispersed recreation use.

Avoiding cultural resources is always the preferred course of action, but it is not necessary to assume that all needed or desired recreational development can or should occur in areas of low cultural resource sensitivity. If a recreation site is proposed, an archaeological survey (if the area has not already been surveyed) would be necessary to determine if there are potential impacts to archaeological resources. If the archaeological resource is found to be potentially significant (i.e., eligible for the California or National Registers), a plan to avoid or minimize potential impacts would be necessary.

## 6.1 LAKE OROVILLE AREA

Based on this GIS-based recreation suitability analysis, areas deemed suitable for potential future recreation site development (i.e., high or moderate suitability rankings) were identified on the GIS figures. Some of the locations that may be considered for potential recreation site development in the Lake Oroville resource area, if needed, include:

- ∄ Lands near Lime Saddle BR and Lime Saddle Campground (Figures 5.3-1, 5.3-5);
- ∄ Lands near the Bloomer Area BICs (Figure 5.3-1);
- ∄ Lands near Spillway DUA and Boat Launch and Oroville Dam Overlook DUAs (Figures 5.3-2 and 5.3-4);
- ∄ Lands adjacent to the Loafer Creek and Bidwell Canyon facilities (Figures 5.3-2 and 5.3-4);
- ∄ A thin strip of land near the Bald Rock Canyon Access (Figure 5.3-2); and
- ∄ A large inland area to the east of Craig Area Saddle BICs (Figure 5.3-2). This site can be accessed via the Craig Access Road; however, the road is currently gated.

Most areas of high suitability for potential recreation site development in this resource area are found near or immediately adjacent to existing recreation sites and are relatively small in size. It therefore follows that most efficient future recreation development in the study area would be through the infill or expansion of existing recreation sites, rather than through the creation of new ones where no facilities currently exist. Some lands near the Foreman Creek Car-top BR (Figure 5.3-2 and 5.3-7) appear as highly suitable, but a review of the archaeological resources map (Appendix A) indicates that there are concerns related to cultural resources near this site that may preclude such use.

A large area east of the Craig Saddle BICs provides the most suitable area for a large, new recreation site in the study area. This large area of land is shown as being of "high suitability" along the existing, unpaved access road to this area. Shoreline access from this site, however, is limited by steep slope and some sensitive environmental resource issues.

## 6.2 STUDY AREA BELOW OROVILLE DAM

Based on this GIS-based recreation suitability analysis, areas deemed suitable for potential future recreation site development were identified on the GIS figures. Some of the locations that may be potentially suitable for recreation site development in the study area below Oroville Dam, if needed, include:

- ∅ Lands near the west end of the Diversion Pool, close to the Lakeland Boulevard Trail Access (Figures 5.3-3 and 5.3-6);
- ∅ Lands adjacent to the North and South Thermalito Forebay recreation facilities (Figure 5.3-3);
- ∅ Lands on the north side of Thermalito Afterbay (Figure 5.3-3);
- ∅ Lands near the OWA Headquarters entrance (Figure 5.3-3);
- ∅ Lands surrounding the Rabe Road Shooting Range and Clay Pit SVRA (Figure 5.3-3);
- ∅ Lands along the west side of the Feather River in the OWA (Figure 5.3-3); and
- ∅ Lands in the vicinity of Riverbend Park (Figures 5.3-3 and 5.3-6).

As most of these areas are near or adjacent to existing recreation sites, it seems most appropriate that they be used for expansion or infill of existing facilities. These sites may be accessed by existing roads. Slope is generally less of an issue below the Oroville Dam compared to the Lake Oroville area, as these lands comprise the edges of the Sacramento Valley.

### **6.3 AREAS OF LOW SUITABILITY**

Areas of low suitability are generally least appropriate for potential future recreation site development. A large portion of the study area (58.1 percent) was found to be of low suitability. This is largely due to the steep slopes that are common within the study area.

In areas where slope is not the overriding constraint, the most common sensitive issues are natural and cultural resources. While these sensitive resources do not always completely preclude potential future recreation development, they often impose formidable permitting hurdles and higher mitigation costs. They can also be more controversial and present possible delays in implementation of a proposed project. Typically, new recreation facility development is most efficiently sited in areas without these constraints.

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## 7.0 REFERENCES

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## **APPENDIX A**

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### *Density Of Known Archaeological Resources In The Oroville Facilities Study Area*

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**Figure A-1. Density of known archaeological sites.**