
DEVIL CANYON PROJECT RELICENSING FERC PROJECT NUMBER 14797



RECREATION MANAGEMENT PLAN

November 2019

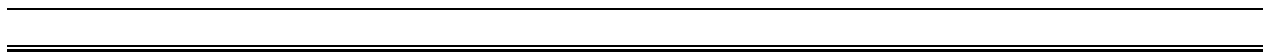


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COMMONLY USED TERMS, ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act of 1990
Application for New License	DWR's Application for a New License for the Devil Canyon Project, FERC Project Number 14797
BMP	Best Management Practice
CFR	Code of Federal Regulations
Developed Recreation	Recreation use or opportunities occurring at developed sites
DPR	California Department of Parks and Recreation
DWR	California Department of Water Resources
FERC	Federal Energy Regulatory Commission
NFS	San Bernardino National Forest
O&M	operation and maintenance
OHV	off-highway vehicle
Plan	Recreation Management Plan
PM&E measures	Protection, Mitigation, and Enhancement measures, which are operation and management activities to: (1) protect resources against impacts from continued operation and maintenance of the Project; (2) mitigate any impacts from continued operation and maintenance of the Project (if the resource cannot be fully protected); and (3) enhance resources affected by continued Project operation and maintenance
Project	Devil Canyon Project
SRA	State Recreation Area
SWP	State Water Project
U.S.	United States
USFS	U.S. Department of Agriculture, Forest Service
Primary Project Road	A road, or segment of a road, that is identified in the Project's new license as a Project facility, is used almost exclusively to access the Project, is within the FERC Project boundary, and is operated and maintained exclusively by DWR as a Project feature

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1.0 INTRODUCTION

In November 2019, the California Department of Water Resources (DWR), pursuant to Title 18 of the Code of Federal Regulations (CFR), Subchapter B (Regulation under the Federal Power Act, Part 4, Subpart F [Application for License for Major Project – Existing Dam] [Traditional Licensing Process]), filed with the Federal Energy Regulatory Commission (FERC) an Application for New License for Major Project – Existing Dam (Application for New License) for DWR’s Devil Canyon Project, FERC Project Number 14797 (Project).

DWR included this Recreation Management Plan (Plan) in its November 2019 Application for New License. This Plan addresses recreation facilities and improved trails within the Project boundary. These Project recreation facilities are operated and maintained by the California Department of Parks and Recreation (DPR) on behalf of DWR as part of the Silverwood Lake State Recreation Area (SRA). The Plan also recognizes there are other recreation facilities both within and outside of the Project boundary that are managed by the U.S. Department of Agriculture, Forest Service (USFS). This includes the Pacific Crest National Scenic Trail and Off-Road Vehicle areas as part of the Pilot Rock area trail system. Therefore, USFS also shares responsibility for managing some recreation resources within and adjacent to the Project boundary. Recognizing that some ongoing public recreation use crosses between USFS and Project recreation areas, this Plan addresses joint needs of USFS and DWR in terms of when these facilities need improvement or better coordinated management to improve recreation use and reduce environmental impacts.

1.1 BACKGROUND

1.1.1 Brief Description of the Project

The Project is part of a larger water storage and delivery system, the State Water Project (SWP), which is the largest state-owned and operated water supply project of its kind in the United States (U.S.). The SWP provides southern California with many benefits, including affordable water supply, reliable regional clean energy, opportunities to integrate green energy, accessible public recreation opportunities, and environmental benefits.

The Project, which is on the East Branch of the SWP in San Bernardino County, has a FERC-authorized installed capacity of 280 megawatts. Project facilities range in elevation from 3,378 feet to 1,778 feet and include: Cedar Springs Dam and Silverwood Lake; San Bernardino Tunnel; Devil Canyon Powerplant Penstocks and Surge Chamber; Devil Canyon Powerplant and Switchyard; Devil Canyon Afterbay and Second Afterbay; Silverwood Lake-associated recreation facilities; and appurtenant facilities and features. (Crestline Lake Arrowhead Water Agency intake, State Highway 138 – Rim of the World Scenic Byway, and the Pacific Crest National Scenic Trail traverse or are located in the Silverwood Lake SRA but, are not Project facilities). The Project interconnects with the regional electric transmission system grid at the Devil Canyon Powerhouse and, therefore, does not include any transmission lines. DWR

operates the Project in a run-of-release mode using SWP water as the water is delivered to downstream SWP water users.

The Project boundary comprises 2,079.2 acres, of which 125.7 acres are National Forest System lands managed by the USFS, as part of the San Bernardino National Forest (NFS). USFS administers the NFS in conformance with the San Bernardino National Forest Land Management Plan (USFS 2005), as subsequently amended.

DWR will continue to operate the Project as it has been operated historically, with the addition of a number of Protection, Mitigation, and Enhancement (PM&E) measures, which are operation and management maintenance (O&M) activities to: (1) protect resources against potential impacts from continued operation and maintenance (O&M) of the Project; (2) mitigate any impacts from continued O&M of the Project (if the resource cannot be fully protected); and (3) enhance resources affected by continued Project O&M. This Plan is one of those PM&E measures.

Figure 1.1-1 shows the Project vicinity. Figure 1.1-2 shows primary Project facilities, including DWR's Project boundary.

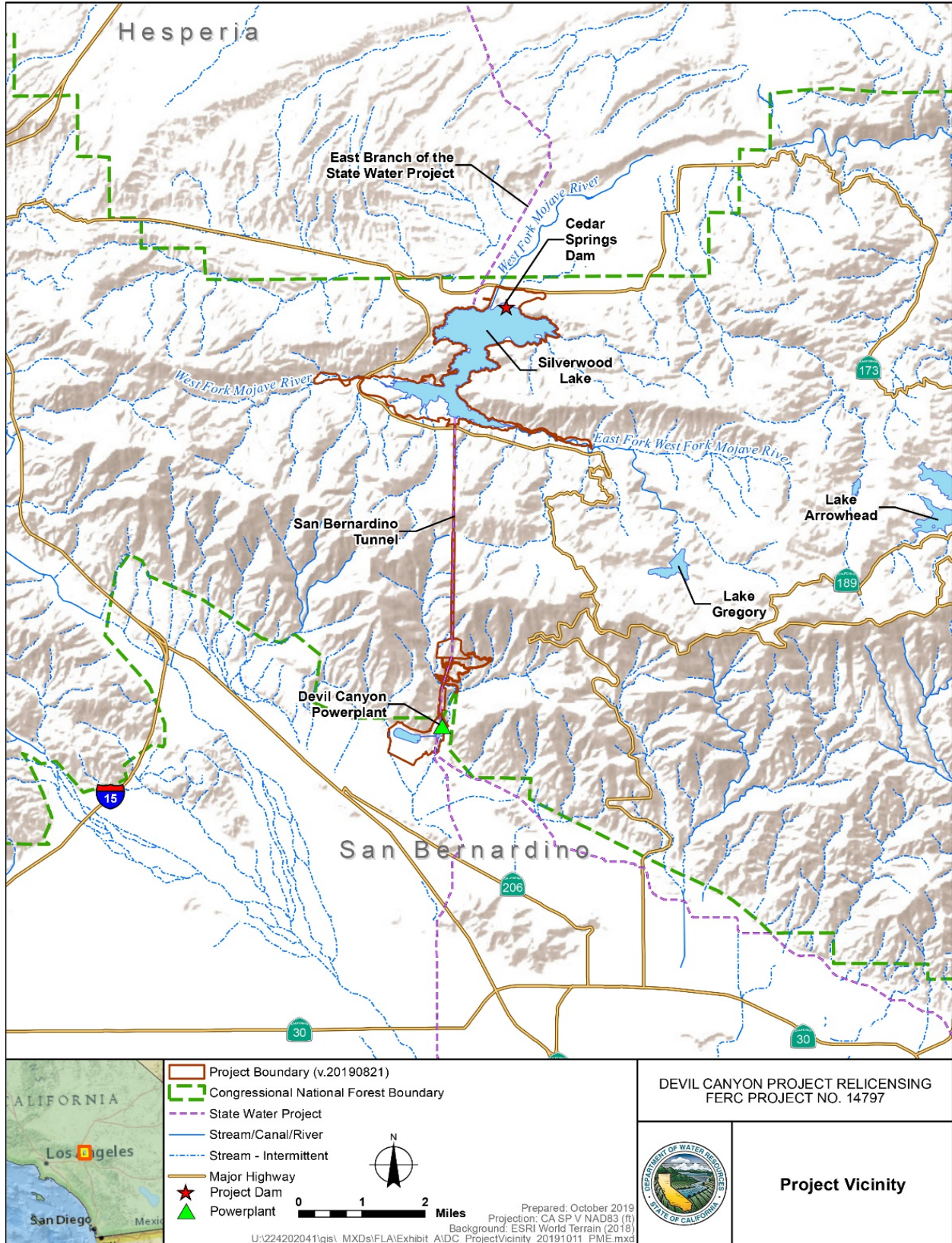


Figure 1.1-1. Devil Canyon Project Vicinity

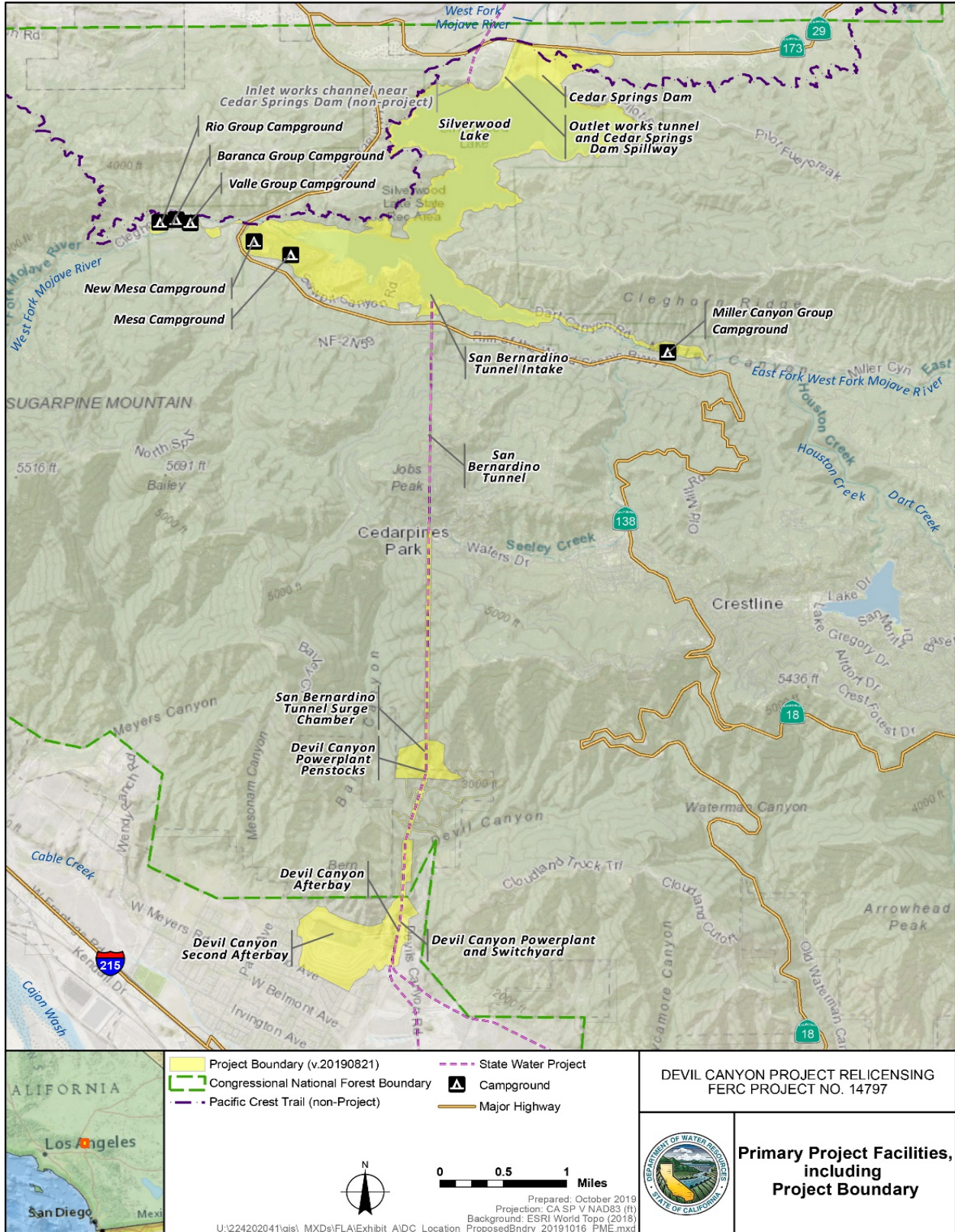


Figure 1.1-2. Devil Canyon Project Boundary

1.2 PURPOSE OF THE PLAN

This Plan is intended to provide guidance for O&M of Project-related recreation facilities and Silverwood Lake shoreline areas, including developed trails and dispersed shoreline areas. To the extent appropriate, DWR will coordinate the efforts required under this Plan with other Project resource efforts, including implementation of other resource management plans and measures included in the license.

1.3 GOALS AND OBJECTIVES OF THE RECREATION PLAN

The primary goals of this Plan are to: (1) list recreation facilities, associated access, parking, and developed amenities at each site, including trails and trailheads associated with the Project; and (2) describe the scope of improvements, recreation management program measures, and general recreation area maintenance commitments for the term of the new license. The objectives of the Plan are to describe Project recreation facilities and uses, and the proposed management improvement measures within the Project boundary to meet the Plan's purpose and goals.

1.4 RECREATION MANAGEMENT PLANNING AND COORDINATION RESPONSIBILITIES

Project recreational facilities are publicly owned and managed by DPR. The responsibilities of DWR and DPR are detailed in agreements between the two agencies. Under FERC regulations, DWR is responsible for provision of approved public access, recreation opportunities, and associated development within the Project boundary. DPR's official mission in managing its statewide recreation facilities is "to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation" (DPR 2018).

Ongoing DPR management duties for Silverwood Lake SRA include:

- Park equipment and facilities maintenance
- Support systems maintenance
- Safety and enforcement, on both land and water
- Interpretive activities
- Project and resource management
- Concession management
- Park administration
- Monitoring and strategic planning

DPR contracts with concessionaries to provide services that support recreation at Silverwood Lake SRA. DPR's current concessionaire is Rocky Mountain Recreation and the Mojave River Natural History Association (current link: silverwoodlakesra.org) provides services as a non-profit cooperating association. Rocky Mountain Recreation currently operates the marina facility, including boat rentals, mooring docks, slip rentals, shuttle service, dry boat storage, snack bar and convenience store supplies, sundries, and souvenirs. Mojave River Natural History Association sells interpretive items in the Visitor Center and firewood to campers. Mojave River Natural History Association also holds annual events in Silverwood Lake SRA, including an annual Applefest, and bald eagle counting and viewing events in fall and winter.

DPR also hosts a campground and boat launch reservation system, ReserveCalifornia.com. Reservations using this system can be made through the ReserveCalifornia.com website up to six months in advance.

The California Highway Patrol and San Bernardino County Sheriff's Department provide uniform traffic law enforcement throughout California and are responsible for patrol and law enforcement on State Highways 138 and 173 around Silverwood Lake, where recreationists access the Project recreation facilities and lake areas. The USFS also support the Sheriffs and Highway Patrol when needed in traffic response or other emergencies.

DWR and DPR also intend to coordinate closely with the USFS for management or facility measures that could affect the PCT, or adjoining National Forest System lands.

1.5 CONTENTS OF THE PLAN

The Plan includes the following:

- Section 1.0. Introduction. Provides introductory information, including the purpose and goals of the Plan.
- Section 2.0. Project Recreation Facilities. Lists and describes Project recreation facilities, including developed trails and trailheads.
- Section 3.0. Recreation Management Plan Measures. Describes proposed Plan measures, including specific facilities measures and visitor services program measures, and how recreation facilities will be maintained.
- Section 4.0. Recreation Management Plan Implementation Schedule. Includes a summary of specific implementation measures and a schedule for those measures.
- Section 5.0. Consultation and Plan Revisions. Describes consultation and Plan review between DWR and DPR regarding Project recreation facilities, including developed trails and trailheads.
- Section 6.0. References Cited. Includes the resource documents cited in this Plan.

2.0 PROJECT RECREATION FACILITIES

This section describes in detail Project recreation facilities, including day use and campground facilities, and trails. Project recreation resources are focused on Silverwood Lake, as there is no recreation use or public access at the Devil Canyon Powerplant and Afterbays. Project recreation facilities are all located within the Silverwood Lake SRA and include all developed recreation sites of the SRA. The public recreation sites of Silverwood Lake SRA are all part of DWR's Proposal, but there are other facilities and lands, including the DPR administrative facilities, that are not part of DWR's Proposal.

The 2,400-acre Silverwood Lake SRA was classified as an SRA on June 9, 1972 and is operated and maintained by DPR. The recreation facilities were constructed in the early and middle 1970s. As described in detail below, Silverwood Lake SRA recreation facilities include: campgrounds, a nature center, picnic areas, boat launches, a marina, swim beaches, and bike and hike trails (Figure 2.1-1).

Silverwood Lake is a popular destination for residents from San Bernardino, Los Angeles, and Riverside Counties, where many users are less than 60 miles from Silverwood Lake SRA facilities. The 980-acre lake is popular with boaters and anglers, particularly due to the fairly constant lake level throughout the year, even during drought periods. The lake and recreation facilities are easily accessible for visitors coming from the high desert communities or greater Los Angeles area. The Silverwood Lake SRA is 11 miles east of Interstate 15. Silverwood Lake and its surrounding shoreline, which make up the Silverwood Lake SRA, are popular with swimmers, campers, hikers, and picnickers, particularly during the summer months.

At an elevation of over 3,000 feet mean sea level, Silverwood Lake is primarily a warm-water fishery, consisting of largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), black crappie (*Pomoxis nigromaculatus*), striped bass (*Morone saxatilis*), channel catfish (*Ictalurus punctatus*), and white catfish (*Ameiurus catus*). A cold-water fishery is maintained by stocking hatchery-raised rainbow trout. Fishing is permitted in most areas of the lake; however, fishing at the inlet for SWP water, Cedar Springs Dam, the Spillway, and San Bernardino Tunnel Inlet areas is restricted by barriers DWR installs and maintains to protect the public from potential hazards.

2.1 DAY USE FACILITIES

Silverwood Lake SRA, which contains the developed Project recreation facilities within DWR's Proposal, offers boating and dispersed shoreline uses, and developed recreation facilities. The developed sites that are part of DWR's Proposal are shown on Figure 2.1-1 and listed in Table 2.1-1. The developed sites include the parking areas and road spurs leading into the facilities. There are also dispersed trail and use areas along Silverwood lake shorelines with some user made trails extending outside the Project boundary to adjoining roads including USFS Road 2N33.

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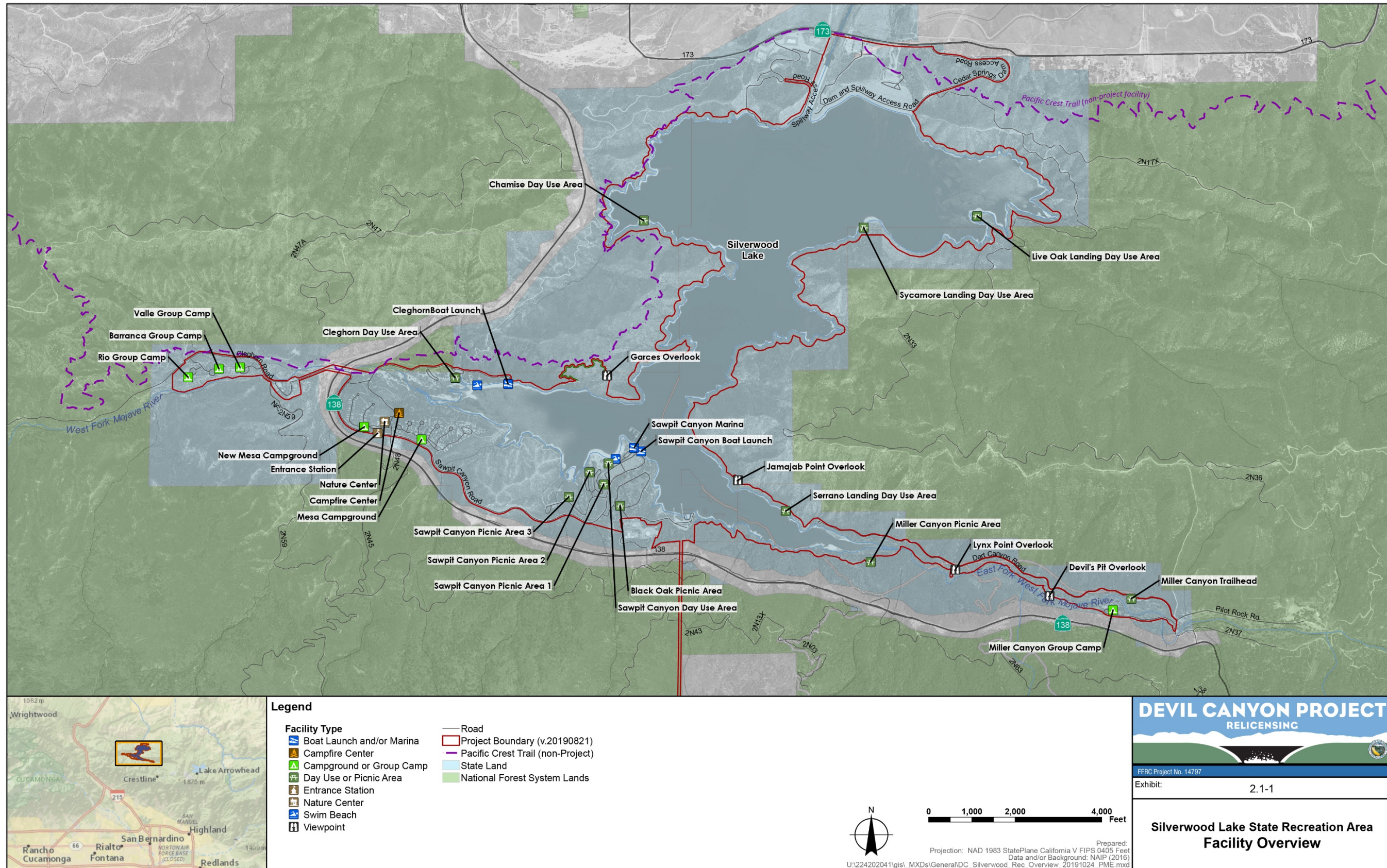


Figure 2.1-1. Silverwood Lake SRA with Project Recreation Facilities

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Table 2.1-1. Project Day-Use Facilities

Silverwood Lake SRA Recreational Facility	Description
Cleghorn Day Use Area	Day use shoreline facility with swim beach and picnicking sites
Cleghorn Boat Launch	Day use facility with boat launch, courtesy dock, and toilet facility.
Garces Overlook	Developed overlook view point
Entrance Station	Kiosk entry station for recreationists
Nature Center	2,700-square foot facility for interpretive programs
Campfire Center	Outdoor amphitheater for interpretive programs
Sawpit Canyon Picnic Area 3	Day use facility with 57 picnicking units
Sawpit Canyon Picnic Area 2	Day use facility with 45 picnicking units
Sawpit Canyon Picnic Area 1	Day use facility with 10 picnicking units
Sawpit Canyon Day Use Area	Day use shoreline facility with swim beach with multiple picnicking facilities and concessionaire store
Black Oak Picnic Area	Day use facility with 84 picnicking units
Sawpit Canyon Marina	Marina facilities with moorage facilities for 61 boats and concessionaire boat rentals
Sawpit Canyon Boat Launch	7-lane boat launch and courtesy docks
Jamajab Point Overlook	Developed overlook view point
Serrano Landing Day Use Area	Boat-in/hike-in shoreline day use site with picnicking facilities
Miller Canyon Picnic Area	Bike-in/hike-in day use site with 12 picnicking units
Lynx Point Overlook	Developed overlook view point
Devil's Pit Overlook	Developed overlook view point with wooden viewing platform
Miller Canyon Trailhead	Developed trail head/parking area for accessing all Miller Canyon facilities and shorelines
Sycamore Landing Day Use Area	Boat-in day use site with 13 picnicking units
Live Oak Landing Day Use Area	Boat-in day use site with 8 picnicking units
Chamise Day Use Area	Boat-in day use site with 7 picnicking units

Source: DWR 2017

Key:

SRA = State Recreation Area

2.2 CAMPGROUND FACILITIES

Project overnight facilities include four group camps and two large individual unit campgrounds.

2.2.1 Group Camps

The four Project group camping facilities that are part of DWR's Proposal are listed in Table 2.2-1 and shown on Figure 2.1-1.

Table 2.2-1. Project Group Camping Facilities

Silverwood Lake SRA Recreational Facility	Description
Rio Group Camp	Group camping facility with 100-person capacity and equestrian facilities
Barranca Group Camp	Group camping facility with 100-person capacity
Valle Group Camp	Group camping facility with 100-person capacity
Miller Canyon Group Camp	Group camping area with 3 sites holding up to 40 persons each

Source: DWR 2017

Key:

SRA = State Recreation Area

2.2.2 Campgrounds

Two large campgrounds, Mesa and New Mesa, are established and well used camping facilities available for park visitors. The individual campground facilities that are part of DWR's Proposal are listed below in Table 2.2-2 and shown on Figure 2.1-1.

Table 2.2-2. Project Camping Facilities

Silverwood Lake SRA Recreational Facility	Description
New Mesa Campground	Campground with 40 full hook up individual camping units
Mesa Campground	Campground facility with 95 individual developed camping units and 6 hike and bike units.

Source: DWR 2017

Key:

SRA = State Recreation Area

2.3 DEVELOPED TRAIL FACILITIES

There are three developed trails that each have improved, typically paved surfaces, and connect to and between all developed facilities in Silverwood Lake SRA. The developed trail facilities that are part of DWR's Proposal are listed below in Table 2.3-1 and shown on Figure 2.1-1.

Table 2.3-1. Project Developed Trail Facilities

Silverwood Lake SRA Recreational Facility	Description
Miller Canyon Trail	1.6-mile-long natural surfaced trail linking Miller Canyon Group Camps to the Silverwood Bike Path
East Fork Trail	0.3-mile-long asphalt surfaced trail connecting Serrano Landing Day Use Area to Jamajab Point Overlook
Silverwood Bike Path	5.6-mile-long paved bike path connecting Serrano Landing Day Use Area in Miller Canyon to Cleghorn Day Use Area on the west end of Silverwood Lake SRA

Source: DWR 2017

Key:

SRA = State Recreation Area

2.4 PROJECT RECREATION ROADS

Based on the Project Transportation System Management Plan, roads specifically related to Project recreation facilities are described in this Recreation Management Plan. Project recreation roads are part of the developed recreation facilities identified in the new license and include those roads used almost exclusively to access the Project recreation facilities within the Project boundary. Of these roads, nine are located entirely on State of California lands (Table 2.4-1). All of the Project recreation roads are open to the public and are shown on maps in Appendix A. Other roads in the area, often connecting to these Project recreation roads, also provide access for the recreating public but are used for other types of uses, including access to USFS lands and are not managed by DWR.

Short- and long-term maintenance actions for Project recreation roads will follow the same procedures described in Sections 3.1.1 and 3.1.2 of the Project Transportation System Management Plan for Primary Project Roads and as summarized below. Short-term Primary Project Road maintenance is defined as routine or periodic repairs, inspections, and maintenance activities conducted annually, periodically, or seasonally to address normal wear and tear during Primary Project Road use under typical seasonal weather conditions. Long-term maintenance is defined as repairs that are scheduled around specific events that impact the overall integrity of a given Primary Project Road, such as heavy-haul events or unusually heavy storm events; such events require repairs that are beyond the scope and budget of the short-term Primary Project Road maintenance procedures.

Table 2.4-1. Project Recreation Roads

Recreation Road Name Designation	Description	Road Surface	Road Width (feet)	Length (miles)	Openings and Restrictions
Rio and Barranca Group Camp road and parking loops	Group Camp access road loop and parking loops stemming off Cleghorn Road	Paved	25	0.3	Gated and typically closed October through March or when no reservations for site have been made
Valle Group Camp road and parking loop	Group Camp access road and parking loop stemming off Cleghorn Road	Paved	25	0.2	Gated and closed when not in use or when no reservations for site have been made
Cleghorn Day Use and Boat Ramp road and parking lots	Day use area access road and parking lot loops that are Silverwood Lake SRA parking lots 4 and 5	Paved	22 (plus parking aprons)	0.7	Generally open April 1 – September 30, 6am – 9pm and October 1 – March 31, 7am – 7pm Typically open dawn to dusk
New Mesa Campground road loops	Two campground spurs with turnarounds at terminus of each	Paved	25	0.7	Typically open 24 hours
Mesa Campground road loops	Campground road network leading into six spurs with turnarounds at terminus of each	Paved	25	1.5	Typically open 24 hours with some campground loops closed during off season October 1 – March 31. When New Mesa is primarily open and meeting demand, however, sites are available year round
Sawpit Canyon Picnic Area road and parking lots	Day use access road and parking lot loops that are Silverwood Lake SRA parking lots 1, 2, and 3	Paved	25	1.0	Generally open April 1 – September 30, 6am – 9pm and October 1 – March 31, 7am – 7pm however, lots may be closed during periods of low use. Typically open dawn to dusk, although in low use season Area 3 is often closed

Table 2.4-1. Project Recreation Roads (continued)

Recreation Road Name Designation	Description	Road Surface	Road Width (feet)	Length (miles)	Openings and Restrictions
Sawpit Canyon Marina and Boat Launch road and parking lots	Day use access road and parking lot loops for boat trailing parking, marina use, and day use parking	Paved	25	0.7	Generally open April 1 – September 30, 6am – 9pm and October 1 – March 31, 7am – 7pm Typically open dawn to dusk
Black Oak Picnic Area road loop	Day use area access road with picnic site parking	Paved	25	0.5	Generally open April 1 – September 30, 6am – 9pm and October 1 – March 31, 7am – 7pm however, lot is closed during periods of low park use Typically open dawn to dusk
Miller Canyon Group Camp road and parking lot	Group Camp access road and parking loop stemming off Highway 138 for Miller Canyon and Pilot Rock Conservation Camp public roads	Paved	25	0.4	Gated and closed when not in use or when no reservations for site have been made Closed yearly October 1 – March 31

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3.0 RECREATION MANAGEMENT PLAN MEASURES

3.1 RECREATION FACILITIES OPERATION, MAINTENANCE, AND MONITORING PROGRAM

3.1.1 Recreation Facilities Operation and Maintenance

DWR and DPR will continue O&M and repair of recreation facilities at a level that provides for public recreation to occur in a safe and enjoyable manner. O&M activities to support recreation development and use will include, but are not limited to, maintaining parking areas, lawns, restrooms, lights, water, power, sewer, shelters, and picnic/campground equipment. Table 3.1-1 provides a general description of the type of O&M activities anticipated to occur at each of the recreation facilities. Presently, DPR provides the necessary personnel, equipment, and/or materials to help achieve the O&M standards.

Agencies with jurisdiction over the work will be notified relative to any O&M activities that impact the bed, bank or channel of a stream or lake (e.g. 401 and 404 of the Clean Water Act).

Table 3.1-1. General Maintenance Activities at Project Recreation Facilities Managed by DPR

Resource	Maintenance Activity
Water supply	Maintain and repair, as needed, all facilities and equipment associated with potable and non-potable (irrigation) water systems.
Wastewater services	Maintain and repair, as needed, all facilities and equipment associated with wastewater collection and treatment in compliance with California Regional Water Quality Control Board National Pollution Discharge Elimination System permits.
Electrical system	Maintain and repair, as needed, all equipment associated with Silverwood Lake SRA's electrical distribution system.
Project Recreation Roads	Maintain and repair, as needed, all project recreation roadways, bridges, parking lots, and drainage systems, including channels, swales, inlets and culverts. Conduct asphalt repairs/ overlay to roadways and parking areas as needed.
Buildings and grounds	Maintain and repair, as needed, all Silverwood Lake SRA buildings and structures to allow public recreation to occur in a safe and enjoyable manner. Regularly inspect and clean picnic tables, camp sites, fire rings, grills, and barbeque stands. Provide trash receptacles and waste disposal services as needed.
Boat launching and mooring facilities	Maintain and repair, as necessary, boat launching and mooring facilities, marina docks, and floating restrooms (including pumping vaults when 75 percent capacity is reached).

Table 3.1-1. General Maintenance Activities at Project Recreation Facilities Managed by DPR (continued)

Resource	Maintenance Activity
Swimming beaches	Maintain an operable visitor swimming-wading beach. Keep swim beaches free of weeds above water's edge and grade evenly. Where possible and practical, provide imported sand near water's edge for use during the peak visitor season (Memorial Day through Labor Day).
Navigation and safety buoys	Maintain and repair, as necessary, navigational and safety buoys and anchors on the lake, including those near the dam and intake structures, and water treatment plant.
Landscaping	Maintain and provide routine maintenance such as pruning, mowing, removal of hazardous trees, and planting of replacement trees. Maintain and repair irrigation systems as necessary.

Source: DWR 2017

Key:

DPR = California Department of Parks and Recreation

SRA = State Recreation Area

3.1.1.1 Erosion Control for Recreation Use Areas

As outlined in the Project Erosion and Sediment Control Plan, erosion treatment projects are either planned in advance or arise as, or are initially implemented as, preventative or emergency actions. Erosion control projects may require consultation with the Lahontan Regional Water Quality Control Board and CDFW.

Generally, planned erosion control activities that disturb a land area greater than one acre may be subject to a Statewide General Permit for Stormwater Discharge associated with construction activity. As outlined in the Project Erosion and Sediment Control Plan, other jurisdictions may also need to be consulted, including the U.S. Army Corps of Engineers, if the erosion treatment project falls within designated waters of the United States or under California Fish and Game Code Section 1602. The best management practices outlined in Table 2.2-1 of the Project Erosion and Sediment Control Plan would apply equally to the priority actions considered in development of site-specific erosion control planning.

Best Management Practices (BMP) to be followed for projects on DPR-administered lands include DPR Project Manual Specification Requirements that include erosion-based specifications under:

- General Requirements, Section 000810, Constraints and Mitigations
- Division 31 Earthwork Specifications, Section 311232, Stormwater Soil Loss Prevention Plan
- Division 31 Earthwork Specifications, Section 311231, Water Pollution Control

- Division 31 Earthwork Specifications, Section 311235, Stormwater Pollution Prevention Plan

There also are preventative erosion control measures that would be undertaken when severe erosion or natural resource damage is possible along cut hillslopes in or near recreation and shoreline areas, along roads and parking areas, in heavy use areas, and in dispersed use areas with user-made or “social trails.”

The erosion control measures that may be used in closing dispersed use trails and other heavy use areas that show erosion problems involve development of site-specific BMPs that could include:

- Erosion prevention
- Surface stabilization
- Runoff and sediment control
- Trail drainage
- Restoration and rehabilitation

Designated trails that may remain would be configured to help prevent concentration of stormwater runoff and resulting erosion. Water should drain evenly under sheet flow conditions, or be channeled into drainage culverts, ditches, or energy dissipation structures designed to handle the anticipated flow. If culverts need to be replaced, DPR follows other BMP practices, including those identified in its 2001 guidance: Best Management Practices Culvert Replacement (Merrill and Casady 2001). Other relevant erosion control measures that would be considered are outlined in the DPR OHV [Off-Highway Vehicle] BMP Manual for Erosion and Sediment Control (Salix Applied Earthcare and Geosyntec Consultants 2007). This includes any approved measures identified by the RWQCB and CDFW.

Areas of rehabilitation and repair (revegetation) will be closed to vehicular traffic. Closed areas will be signed so users know to stay on established trails, and not create new trails through vegetation. When restoration occurs, native, locally adapted plant species will be used, and soil amended as needed to promote growth as outlined in the Integrated Vegetation Management Plan.

3.1.2 Litter Control Program

In the course of the relicensing recreation studies, it was identified both in the field and in interviews that littering and litter accumulation and dispersion are problems in some developed sites, and along shorelines and upland areas in the north end of Silverwood Lake. The lack of roads accessing the shoreline areas present a challenge to reducing illegal litter activities. Current litter control involves weekly patrols to clean the shoreline and empty the few trash receptacles at the three boat-in sites using a large maintenance barge. In and around the other developed sites in Silverwood Lake SRA,

DPR maintenance crews have daily patrols to empty trash receptacles and collect accumulated litter. To better control the litter problems, DWR, working with DPR, will pursue the following efforts:

- Continue program to replace trash receptacles with bear-proof cans and add additional containers in higher use areas as needed.
- Empty trash containers at least once a week during off season periods and up to three times a day at developed sites accessible by vehicles during periods of high use.
- Increase the frequency of barge-based litter clean up and maintenance services in the north end of Silverwood Lake to twice a week in the primary recreation season, April through September.
- Increase patrols and for lands in and adjoining the Project boundary, organize special clean-up days promoting and enlisting community support to help reduce trash and sanitation problems and actions that may degrade natural resources and the potential for wildland fires.
- Provide better signage (not to be placed directly on PCT) and information to visitors about low-impact day use methods.
- Implement additional litter control program measures, such as providing “pack it in, pack it out” litter bags, and disseminate litter control information at visitor contact centers, such as the Entrance Station and Nature Center.
- Where practical, make use of volunteer organizations to help with SRA litter clean-up that could be in the form of an Adopt-a-Highway program.

3.1.3 Visitor Services, Safety, and Signage Program

To help improve the visitor use experience and reduce potential actions by users that may degrade natural resources and visitor experiences, a series of visitor service measures, including additional directional and informational signage, would be pursued by DWR working with DPR and Caltrans. These measures for Project recreation facilities within the SRA include the following:

- Where practical, make use of volunteer organizations to help with SRA visitor information and interception as well as helping with litter control and other park needs.
- Develop and provide informational brochures and online information materials to help educate the public regarding low-impact recreation use and fire safety precautions. This information will be made available online and at visitor contact stations, such as the Entrance Station, to help reduce litter and potential visitor

use impacts on facilities and on environmentally sensitive resources near shorelines.

- Prepare and make available new information to support proper use of Project recreation facilities, including printed and web-based materials showing day use sites, boat launches, wildlife viewing areas, campsites, and trails.
- Provide and install additional directional signage on roads and developed trails around Silverwood Lake to help visitors disperse more evenly during high-use periods. The additional signage also will help increase users' awareness of facilities, thereby helping to enhance the user experience. Signage will be developed using DPR policies and, to the extent possible, will use Universal standardized signage symbols, will include signage for hazards and public safety (USFS 2013), and not be placed directly on the PCT.
- Implement a visitor services program in coordination with DPR regarding capacity controls, which will include dissemination of real-time park use information that can be used for potential recreationists' trip planning purposes. DWR will develop new marketing materials in coordination with DPR that will include information on capacity controls, typical and expected closure periods, and closure procedures that can be understood and used by recreationists for trip planning purposes. Information will include locations of alternative recreation areas and typical user patterns with regard to use levels at Project recreation facility parking and site facilities. The intent of this program is to help recreationists know in advance of periods of closure before embarking on a trip to Silverwood Lake so they do not become displaced, cue back to Highway 138, or have to wait on roadways for long periods of time. Real time noticing of park closure and park capacity levels (remaining vehicle or boat capacity) could include live-feed web cameras, electronic signage, and updates on social media websites all provided by DWR.
- Continue the toxic algae testing, monitoring, and reporting program at Silverwood Lake to ensure the public is warned about and protected from potential harm caused by water contact with blue-green algae outbreaks. Notices will be posted and press releases provided when any of three established water quality advisory levels are advised: (1) Caution; (2) Warning; and (3) Danger (no body contact).
- Improve safety measures for the PCT crossing Highway 138. This could include increasing signage, adding a crosswalk, installing flashing lights, or other means to make the public aware of the hazards when crossing Highway 138 via the PCT.

3.1.4 Recreation Resources Monitoring and Evaluation Program

Over the term of the new license, recreation use monitoring will be an important component in determining when changes are required at Project recreation facilities to

continue adequate recreation access during the license term. DWR and DPR will collect visitor registration and fee data in a standardized fashion as needed to evaluate use in finalizing plans for improvements or expansion of facilities and offerings. Currently, for the fee areas, data is collected daily regarding number of visitors, number of visitor nights (camping), number of vehicles, and number of boating vessels. Maintaining consistent recreation data collection is important in order to identify trends, manage use, and plan for future improvements. DWR uses this data and periodically determines whether the recreation management plans are continuing to meet the recreation needs within the Project boundary. Any changes to the Recreation Management Plan would be based on documented changes in use patterns evidenced by monitoring information, future visitor needs analyses, or new mandates or regulations that are relevant to recreation in the Project area, including lands adjoining the Project, during the license term.

3.2 RECREATION FACILITY IMPROVEMENT PROGRAM

Based on the relicensing studies and analysis, the following facilities and improvement measures are identified as improvement projects that DWR, working with DPR, will pursue.

3.2.1 Rio, Barranca, and Valle Group Camp Rehabilitation

The existing group camps in the West Fork Area are in need of repair and improvement based on the relicensing condition assessment study work (DWR 2017). The improvement for these three group camps entail a rehabilitation of the existing facilities, including installation of a new concrete pad, new metal roof and ramada, new picnic tables, barbeque grills, hot coal bins, fire pit, improvements to the equestrian facilities, and restroom roof repair. Facility replacements will involve use of Americans with Disabilities (ADA)-compliant amenities, and the rehabilitation will include other ADA-access improvements, such as designated parking and handrails.

3.2.2 Sawpit Canyon Picnic Area Improvements

During the 2017 relicensing recreation inventory surveys, the three Sawpit Canyon Picnic Areas were found to be in fair condition. Several improvements will be implemented to renew this facility's full function and desirability for recreation users. Improvements will include clearing vegetation along access routes, replacing picnic tables, replacing trash receptacles with bear-proof cans, and resurfacing road and parking pavement.

3.2.3 Sawpit Canyon Day Use Area Improvements

Several improvements are proposed to this popular facility. Improvements include replacing picnic tables, barbeques, and hot coal bins. Additionally, trash receptacles will be replaced with bear-proof cans, and parking areas and existing walking paths will be resurfaced. Repairs include replacing and updating public use water faucets and drinking fountains.

3.2.4 Live Oak Landing Day Use Area and Dispersed Use Area Trail Improvements

Several updates are proposed to improve and harden this remote developed site on the shoreline. The site is used by boaters primarily, but some users access the site from Forest Service Road 2N33. The proposed improvements include replacing picnic tables, marking primary user trails from shoreline to facilities, and adding additional bear-proof trash receptacles. Directional signage also will be added.

A study will also be undertaken with representatives from DWR, DPR, and USFS to assess and possibly plan for closing user-made trails using natural barriers and other means. The intent would be to concentrate use in and around the site so that the most suitable, least erosive, and least environmentally damaging trails would be used by recreationists. If necessary, the treatment plan could include installation of natural barriers, buffer treatments, or other appropriate measures. Trails to be retained will be those with the least potential for erosion and with suitable grades. The work may include rock placement, signage, construction of rock steps, large woody debris treatments, construction of wood crib walls, slope stabilization, and revegetation. The study will be completed in one year and involve the following components:

- Problem Description – Collect Inventory and Monitoring Data
- Evaluate Impact Acceptability
- Evaluate Causes and Alternative Solutions
- Apply Site and/or Visitor Management Actions

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4.0 RECREATION MANAGEMENT PLAN IMPLEMENTATION SCHEDULE

The Recreation Management Plan will become effective following FERC issuance of a new license. A summary of the specific implementation measures and proposed schedule is provided in Table 4.0-1.

Table 4.0-1. Recreation Management Plan Measures Implementation Schedule

Action	Timeline
<p>Recreation Facilities Operation and Maintenance (Section 3.1.1) Continue meeting O&M standards at all Project recreation facilities.</p>	Continuous
<p>Litter Control Program (Section 3.1.2) Maintain patrols to reduce and minimize litter to help reduce trash and sanitation problems and actions that may degrade natural resources and the potential for wildland fires. Provide better signage and information to visitors about low-impact day use and implement other litter control program measures, such as providing litter bags, organizing volunteer community-based clean up events, and disseminating litter control information at visitor contact centers.</p>	By year 2 of the new license, then continuous
<p>Visitor Services, Safety, and Signage Program (Section 3.1.3) Implement visitor services program involving dissemination of real-time park use information that can be used for trip planning purposes that is not currently available. Develop new marketing materials to include information on protection of the environment, capacity controls, typical closure periods and procedures, boating use and controls, and other information to enhance existing recreation opportunities associated with Silverwood Lake.</p>	By year 3 of the new license, then continuous (testing for blue-green algae seasonally)
<p>Rio Group Camp Rehabilitation (Section 3.2.1) Resurface road and access paths, and replace barbeque grills, picnic tables, and shade ramada. Add ADA improvements, such as designated parking and handrails.</p>	By year 2 of the new license – except road and parking resurface by year 6 of new license
<p>Barranca Group Camp Rehabilitation (Section 3.2.1) Resurface road and access paths, and replace barbeque grills, picnic tables, and shade ramada. Add ADA improvements, such as designated parking and handrails.</p>	By year 6 of the new license
<p>Valle Group Camp Rehabilitation (Section 3.2.1) Resurface road and access paths, and replace barbeque grills, picnic tables, and shade ramada. Add ADA improvements, such as designated parking and handrails.</p>	By year 10 of the new license
<p>Sawpit Canyon Picnic Area Improvements (Section 3.2.2) Resurface road and parking pavement, clear vegetation on access routes, and replace picnic tables and trash receptacles with bear-proof cans. Rehabilitate water spigots and drinking fountains.</p>	By year 6 of new license – except road and parking, resurface by year 8 of the new license
<p>Sawpit Canyon Day Use Area Improvements (Section 3.2.3) Resurface road and parking pavement, clear vegetation on access routes, and replace picnic tables and trash receptacles with bear-proof cans.</p>	By year 6 of the new license

Table 4.0-1. Recreation Management Plan Measures Implementation Schedule (continued)

Action	Timeline
<p>Live Oak Landing Day Use Area Improvements (Section 3.2.4) Update site with new picnic tables. Add bear-proof trash receptacles. Designate and mark shoreline trails. Harden site with more formal paths from boat-in areas to ramadas and restrooms. Restore vegetation where possible by using deterrents to keep users away from vegetated buffer areas. Develop plan that may close some user-made trails using natural barriers and other means in order to concentrate use in and around the most suitable trail locations. Monitor dispersed use patterns in this area and adjoining shorelines on Silverwood Lake.</p>	<p>Develop plan for closing user-made trails within year 2 of the new license; other improvements to site within year 3 of the new license</p>

Key:

O&M = Operation and Maintenance

SRA = State Recreation Area

5.0 CONSULTATION AND PLAN REVISIONS

5.1 CONSULTATION

DWR prepared this Recreation Management Plan in consultation with USFS, DPR, the National Park Service, and the Pacific Crest Trail Association. Additional input was obtained from meetings held with Relicensing Participants in 2018 and 2019. Consultation with USFS and DPR on the development of the Plan took place in a series of meetings and reviews in 2018 and 2019. Over the new license term, any revisions to the Plan will be submitted to interested parties for review and input.

5.2 PLAN REVISIONS

Every 20 years during the term of the new license, DWR will conduct a comprehensive recreation study to assess recreation use and needs related to the Project. DWR will consult with interested parties in developing the final study plans, will convene a series of meetings with interested parties to evaluate the results, and will advise DPR on the Plan and visitor needs.

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6.0 REFERENCES CITED

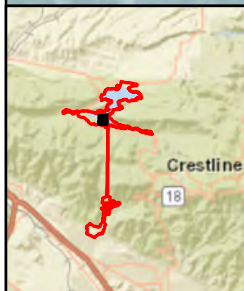
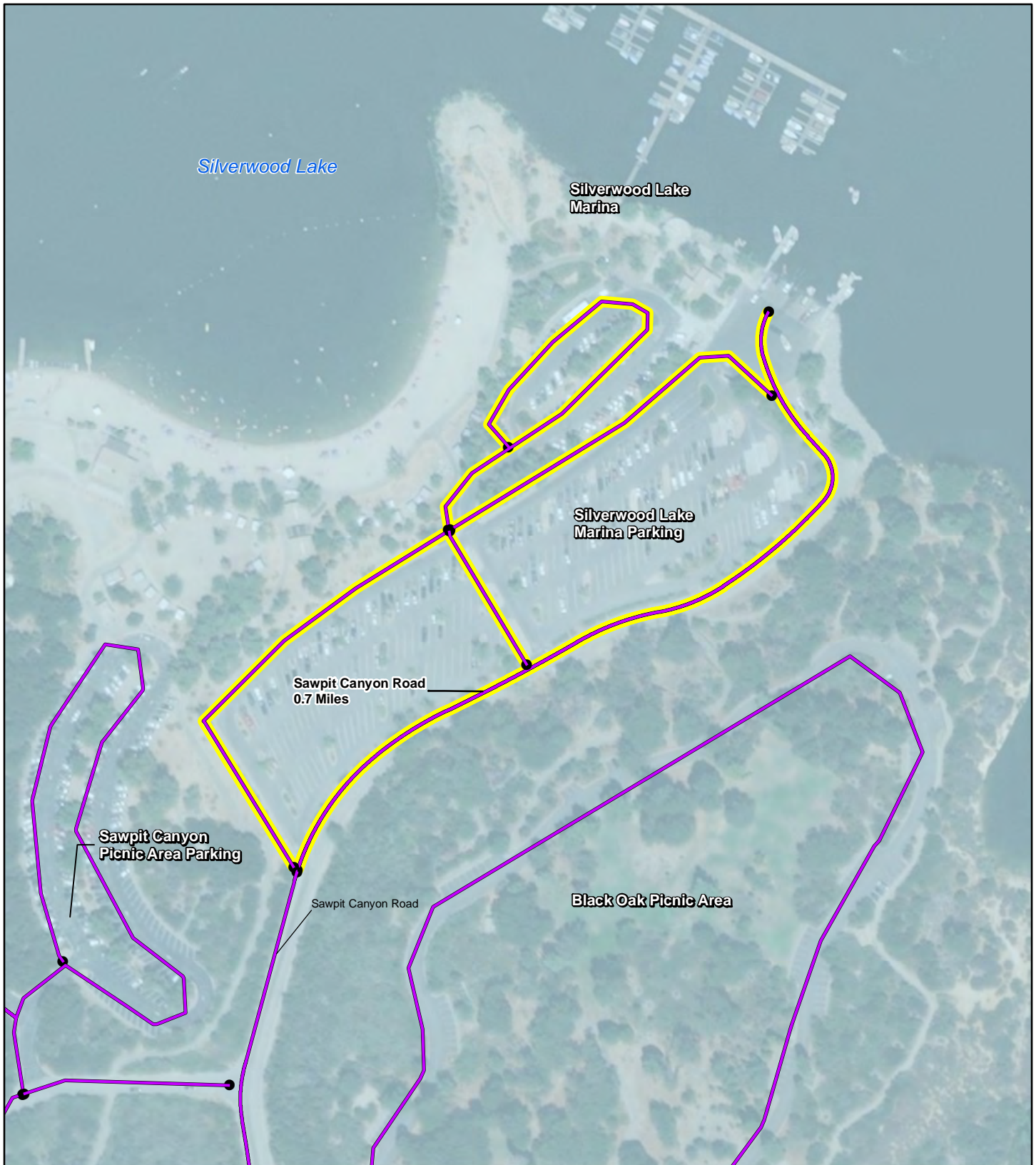
- California Department of Parks and Recreation (DPR). 2018. California State Parks Home Page. Available online: https://www.parks.ca.gov/?page_id=91. Accessed: October 2018.
- California Department of Water Resources (DWR). 2017. Recreation Study 9 – Recreation. Available online: <http://devil-canyon-project-relicensing.com/studies/>
- Merrill, Brian R. and Ethan Casaday. 2001. Best Management Practices Culvert Replacement. Prepared for California Department of Parks and Recreation, Roads Trails and Resources Maintenance Section, North Coast Redwoods District. Sacramento, California. December 2001.
- Salix Applied Earthcare and Geosyntec Consultants. 2007. OHV BMP Manual for Erosion and Sediment Control. Prepared for State of California Department of Parks and Recreation Off-Highway Motor Vehicle Recreation Division. Sacramento, California. November 2007.
- U.S. Department of Agriculture, Forest Service (USFS). 2013. Sign and Poster Guidelines for the Forest Service. Engineering Staff, Washington D.C, EM7100 - 15.2013.
- _____. 2005. Land Management Plan Part 2, San Bernardino National Forest Strategy. USFS. Pacific Southwest Region. R5-MB-079. September 2005.

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Appendix A

Project Recreation Roads

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Surface

- Paved
- Native

Land Ownership

- Proposed Project Boundary Devil Canyon
- State of California

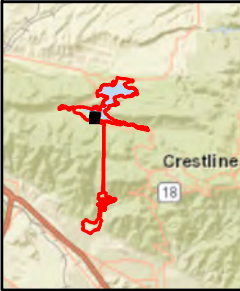
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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 1 OF 9



**SAWPIT CANYON MARINA
 AND BOAT LAUNCH ROAD
 AND PARKING LOTS
 (Road Highlighted in Yellow)**



Surface

- Paved
- Native

Land Ownership

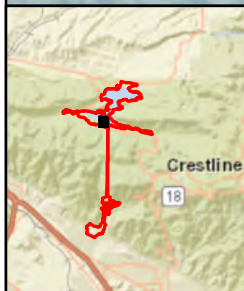
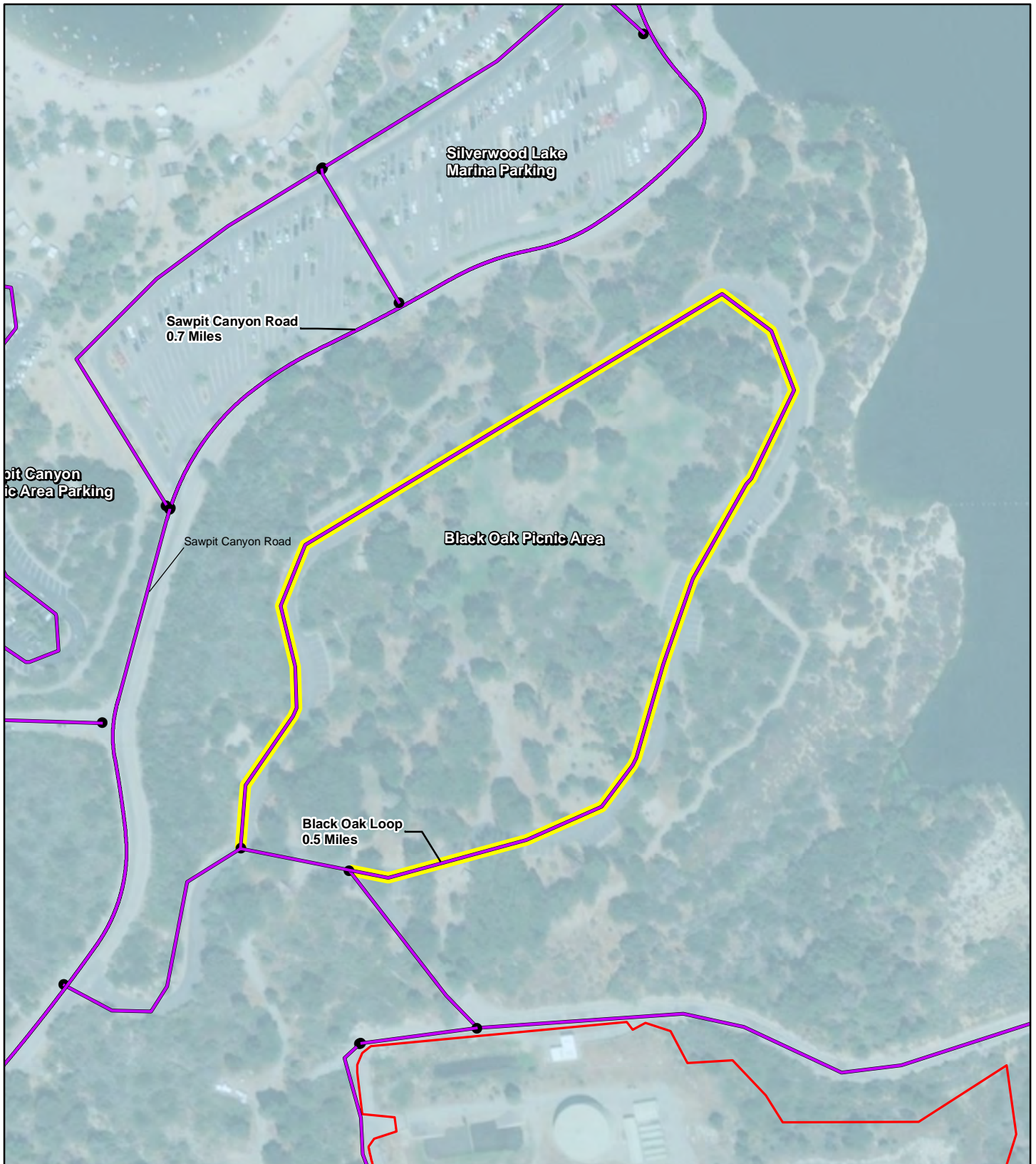
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- State of California

Prepared: 11/20/2018
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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 2 OF 9

**SAWPIT CANYON PICNIC
 AREAS ROAD AND PARKING
 LOTS**
 (Road Highlighted in Yellow)



Surface

- Paved
- Native

Proposed Project Boundary Devil Canyon

Land Ownership

- State of California

Prepared: 11/20/2018
 Projection: CA StatePlane Zone 5, US FT
 Data and/or Background: Esri Imagery, CA DWR Roads.

0 150 300
 Feet

DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 3 OF 9

**BLACK OAK PICNIC AREA
 ROAD LOOP
 (Road Highlighted in Yellow)**



<p>Surface</p> <ul style="list-style-type: none"> Paved Native 	<p> Proposed Project Boundary Devil Canyon</p> <p>Land Ownership</p> <ul style="list-style-type: none"> US Forest Service State of California
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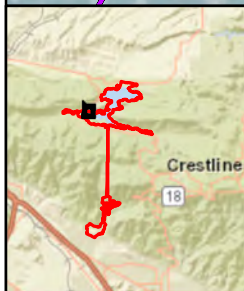
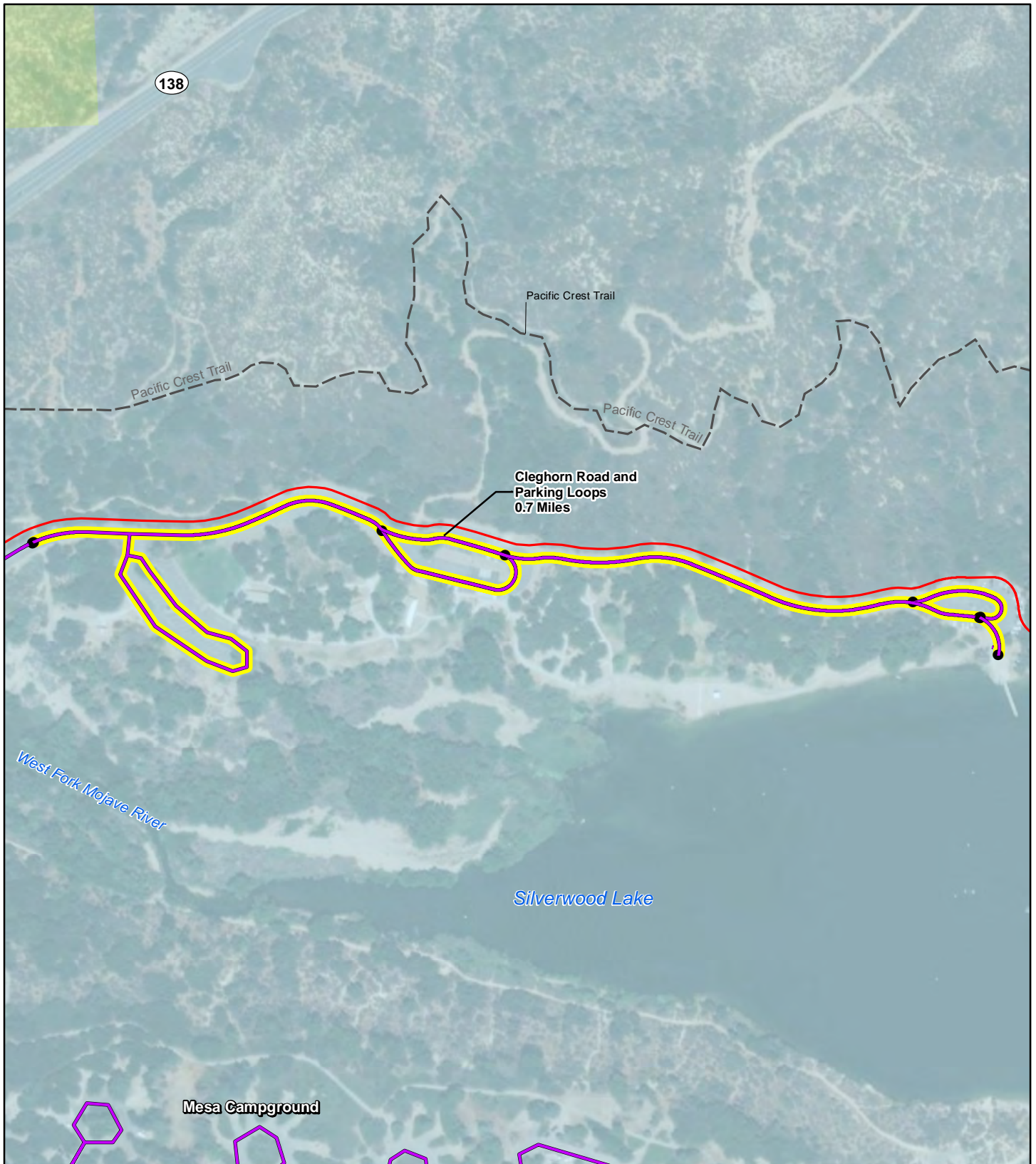
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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 4 OF 9



**MILLER CANYON GROUP
 CAMP ROAD AND PARKING
 LOT**
 (Road Highlighted in Yellow)



— · — Pacific Crest Trail

Surface

- Paved
- Native

Land Ownership

- US Forest Service
- State of California

Proposed Project Boundary Devil Canyon

Prepared: 11/14/2018
Projection: CA StatePlane Zone 5, US FT
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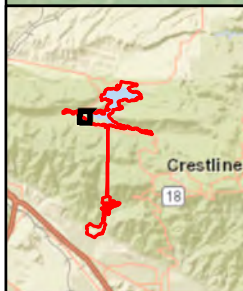
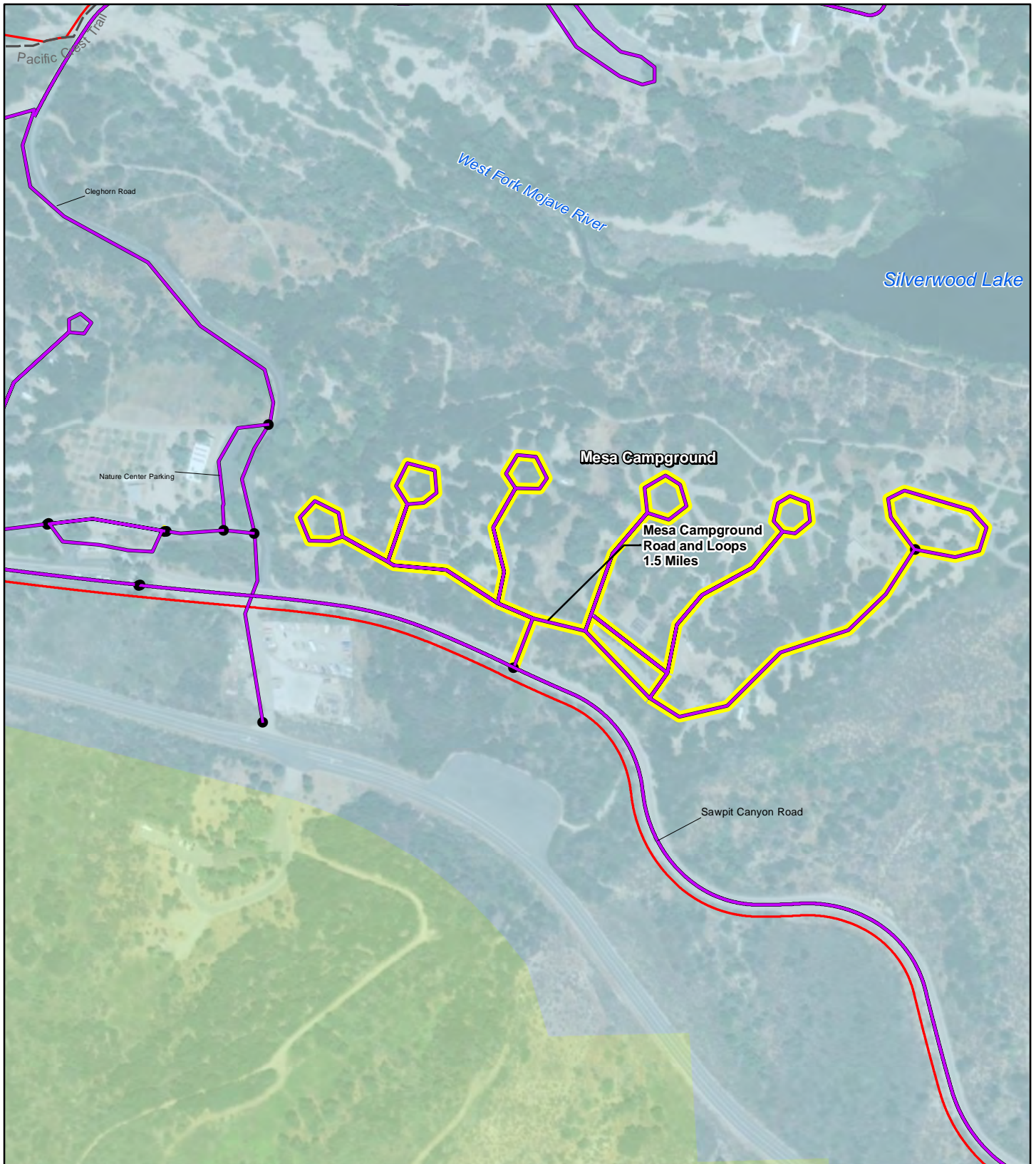
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DEVIL CANYON PROJECT RELICENSING
RECREATION SYSTEM MANAGEMENT PLAN
- SILVERWOOD LAKE STATE RECREATION AREA
FIGURE 5 OF 9

DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

**CLEGHORN DAY USE AND
BOAT RAMP ROAD AND
PARKING LOTS
(Road Highlighted in Yellow)**



<p>— — Pacific Crest Trail</p> <p>Surface</p> <p>●—● Paved</p> <p>●—● Native</p>	<p>▭ Proposed Project Boundary Devil Canyon</p> <p>Land Ownership</p> <p>■ US Forest Service</p> <p>■ State of California</p>
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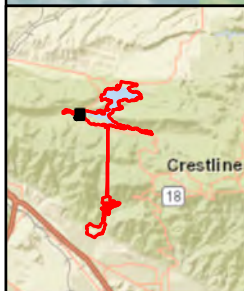
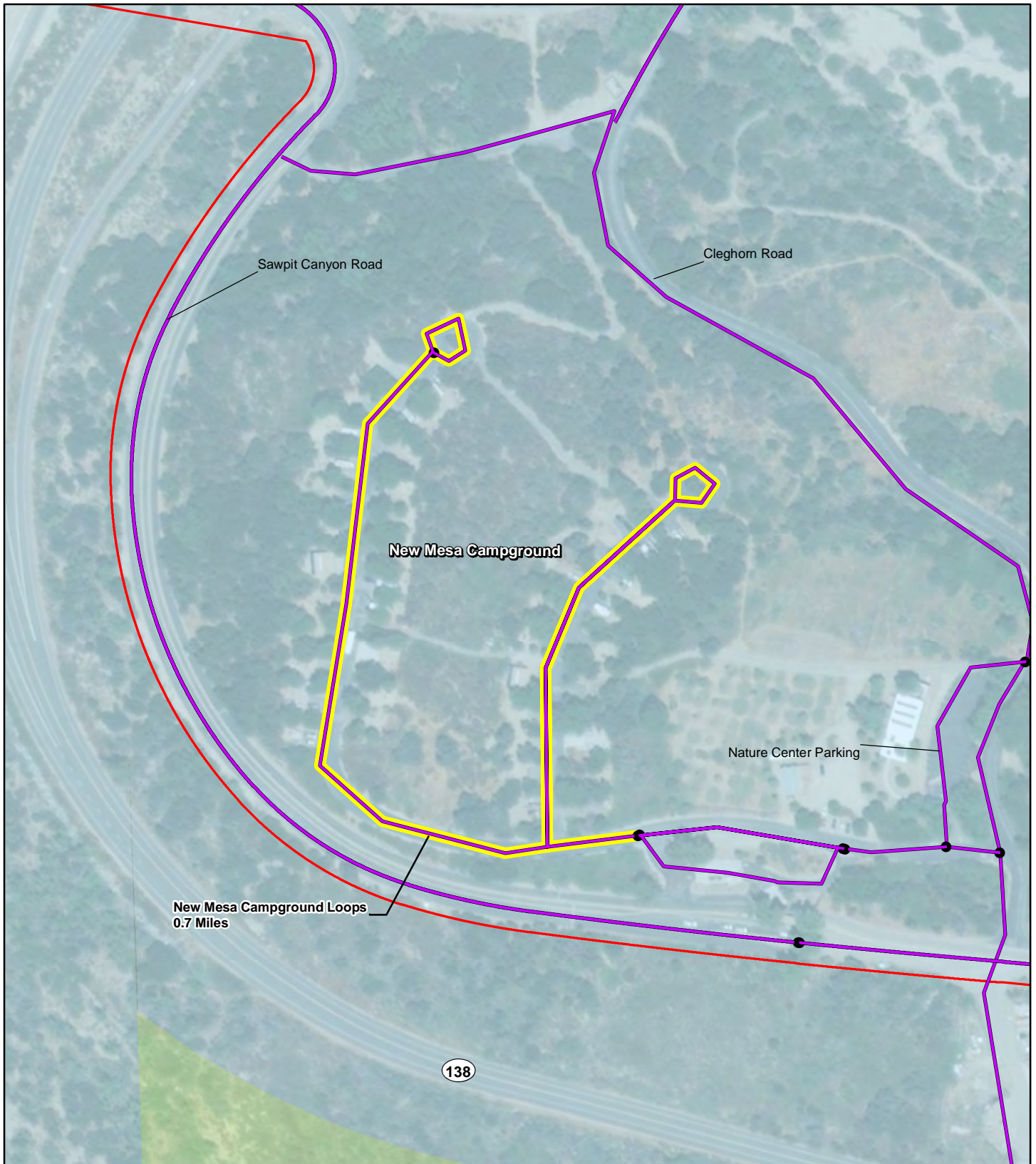
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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 6 OF 9



**MESA CAMPGROUND ROAD
 LOOPS**
 (Road Highlighted in Yellow)



Surface

- Paved
- Native

Land Ownership

- US Forest Service
- State of California

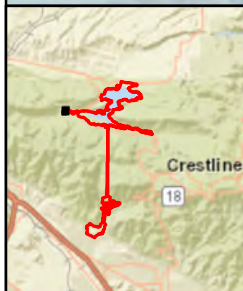
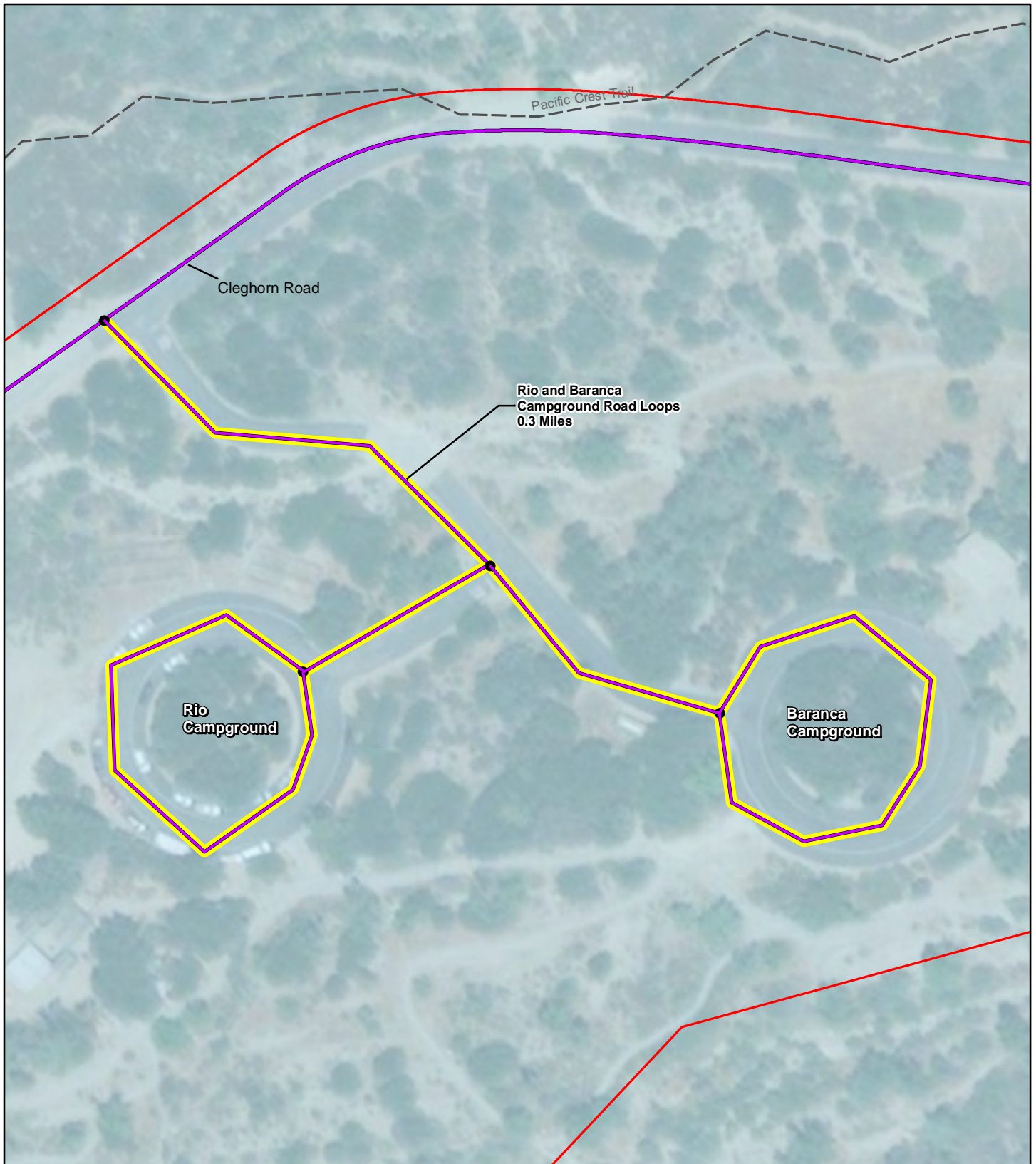
Proposed Project Boundary Devil Canyon

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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 7 OF 9

**NEW MESA CAMPGROUND
 ROAD LOOPS
 (Road Highlighted in Yellow)**



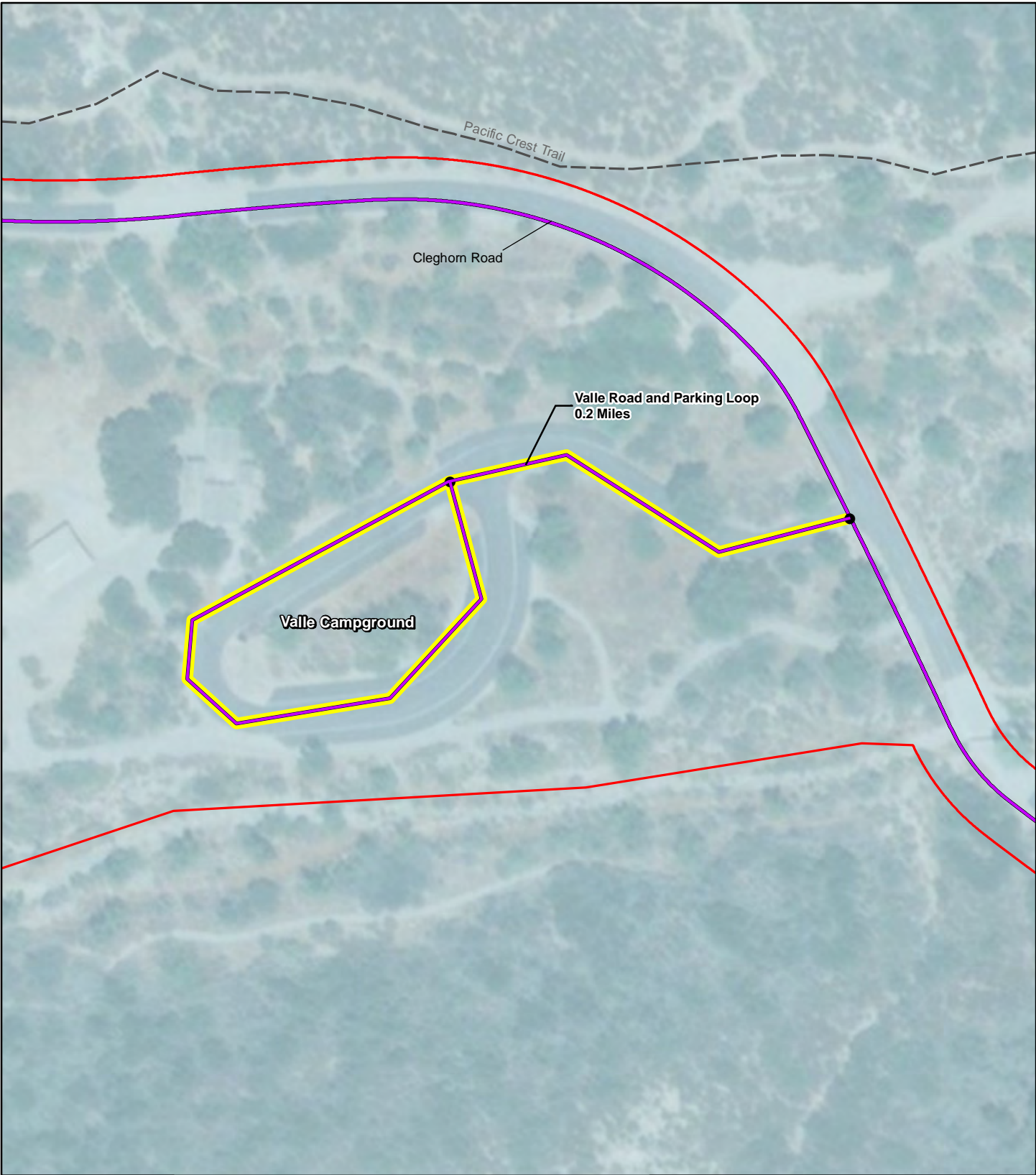
- - - Pacific Crest Trail
Surface
 ●-● Paved
 ●-● Native
 Proposed Project Boundary Devil Canyon
Land Ownership
 State of California

Prepared: 11/14/2018
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Feet
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DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 8 OF 9

**RIO AND BARRANCA GROUP
 CAMPGROUND AND PARKING
 LOOPS**
 (Road Highlighted in Yellow)



- · — Pacific Crest Trail
- Proposed Project Boundary Devil Canyon
- Surface**
- Paved
- Native
- Land Ownership**
- State of California

Prepared: 11/14/2018
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 Data and/or Background: Esri Imagery,
 CA DWR Roads.



DEVIL CANYON PROJECT RELICENSING
 RECREATION SYSTEM MANAGEMENT PLAN
 - SILVERWOOD LAKE STATE RECREATION AREA
 FIGURE 9 OF 9



**VALLE GROUP CAMP ROAD
 AND PARKING LOOP
 (Road Highlighted in Yellow)**