DEVIL CANYON PROJECT RELICENSING
FERC PROJECT NUMBER 14797

FIRE PREVENTION AND RESPONSE PLAN

November 2019

State of California
California Natural Resources Agency
DEPARTMENT OF WATER RESOURCES
Hydropower License Planning and Compliance Office

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Governor	Secretary for	Director
State of California	California Natural Resources	Department of Water Resources

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COMMONLY USED TERMS, ACRONYMS AND ABBREVIATIONS

ACC	Area Control Center
Application for New License	DWR's Application for a New License for Major Project – Existing Dam for the Devil Canyon Project Relicensing, FERC Project Number 14797
CAL FIRE	California Department of Forestry and Fire Protection
CPRC	California Public Resource Code
DWR	California Department of Water Resources
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FSM	Forest Service Manual
NFS	National Forest System
O&M	operation and maintenance
PAL	project activity levels
Plan	Fire Prevention and Response Plan
prevention	Activities directed at reducing the number of person-caused fires, including public education, law enforcement, dissemination of information, and the reduction of hazards
Project	Devil Canyon Project Relicensing, FERC Project Number 14797
Project boundary	The Project boundary is the area to which DWR requires access for normal Project operations and maintenance. The boundary is shown in Exhibit G of DWR's Application for New License
SBNF	San Bernardino National Forest
SRA	State Recreation Area
suppression	All the work of extinguishing or containing a fire, beginning with its discovery
SWP	State Water Project
U.S.	United States
USFS	U.S. Department of Agriculture, Forest Service
USFWS	U.S. Fish and Wildlife Service
wildfire	An unplanned and unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out

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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, 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 a New License for Major Project – Existing Dam (Application for New License) for DWR's Devil Canyon Project Relicensing, FERC Project Number 14797 (Project).

DWR included this Fire Prevention and Response Plan (Plan) in its November 2019 Application for New License. This Plan addresses fire prevention procedures, reporting, and safe fire practices for DWR personnel and contractors responsible for operating and maintaining the Project.

All elevation data in this exhibit are in U.S. Department of Commerce, National Oceanic and Atmospheric Association, National Geodetic Survey Vertical Datum of 1929, unless otherwise stated.

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. 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. The Project boundary comprises 2,079.2 acres, of which 125.7 acres are National Forest System (NFS) lands managed by the U.S. Department of Agriculture, Forest Service (USFS), as part of the San Bernardino National Forest (SBNF). Project facilities range in elevation from 3,378 feet to 1,778 feet, and include: Cedar Springs Dam and Silverwood Lake; San Bernardino Tunnel and Surge Chamber; Devil Canyon Powerplant Penstocks; Devil Canyon Powerplant and Switchyard; Devil Canyon Afterbay and Second Afterbay; Silverwood Lake-associated recreation facilities; and appurtenant facilities and features. The California Department of Parks and Recreation (DPR), on behalf of DWR, maintains and operates the Silverwood Lake-associated Project recreation facilities as part of the Silverwood Lake State Recreation Area (SRA). Non-Project facilities (e.g., the Pacific Crest National Scenic Trail and DPR administrative buildings) traverse or are located in the Silverwood Lake SRA but are not Project facilities. The Project does not include any open water conduits or transmission lines. DWR operates the Project using SWP water as the water is delivered to downstream SWP water users; no local water is used for

Project purposes. Figure 1.1-1 shows the Project vicinity. Figure 1.1-2 shows primary Project facilities, including the Project boundary.

1.2 PURPOSE OF THE PLAN

The purpose of this Plan is to provide guidance for fire prevention, response, and investigation, including prevention, emergency response preparedness, reporting, and fire control/extinguishing during operation and maintenance (O&M) of the Project. 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 PLAN

The goals of the Plan are to guide Project O&M in a manner intended to help prevent the ignition and spread of wildfires, and to guide response should fires occur. The objective of the Plan is to describe the fire prevention, protection and response actions to meet the Plan's purposes and goals.

1.4 CONTENTS OF THE FIRE PREVENTION AND RESPONSE PLAN

This Plan includes the following:

- Section 1.0. Introduction. This section includes introductory information, including the purpose and goals of the Plan.
- Section 2.0. Methods. This section describes the research conducted and relevant documents consulted for the development of the Plan.
- Section 3.0. Fire Prevention and Protection Actions. This section describes fire prevention and protection measures for the Project.
- Section 4.0. Fire Response Actions. This section describes fire response measures for the Project.
- Section 5.0. Consultation, Reporting, and Plan Revisions. This section describes consultation between DWR and SBNF, reporting, and plan revisions.
- Section 6.0. References Cited. This section provides a list of the references cited in this Plan.

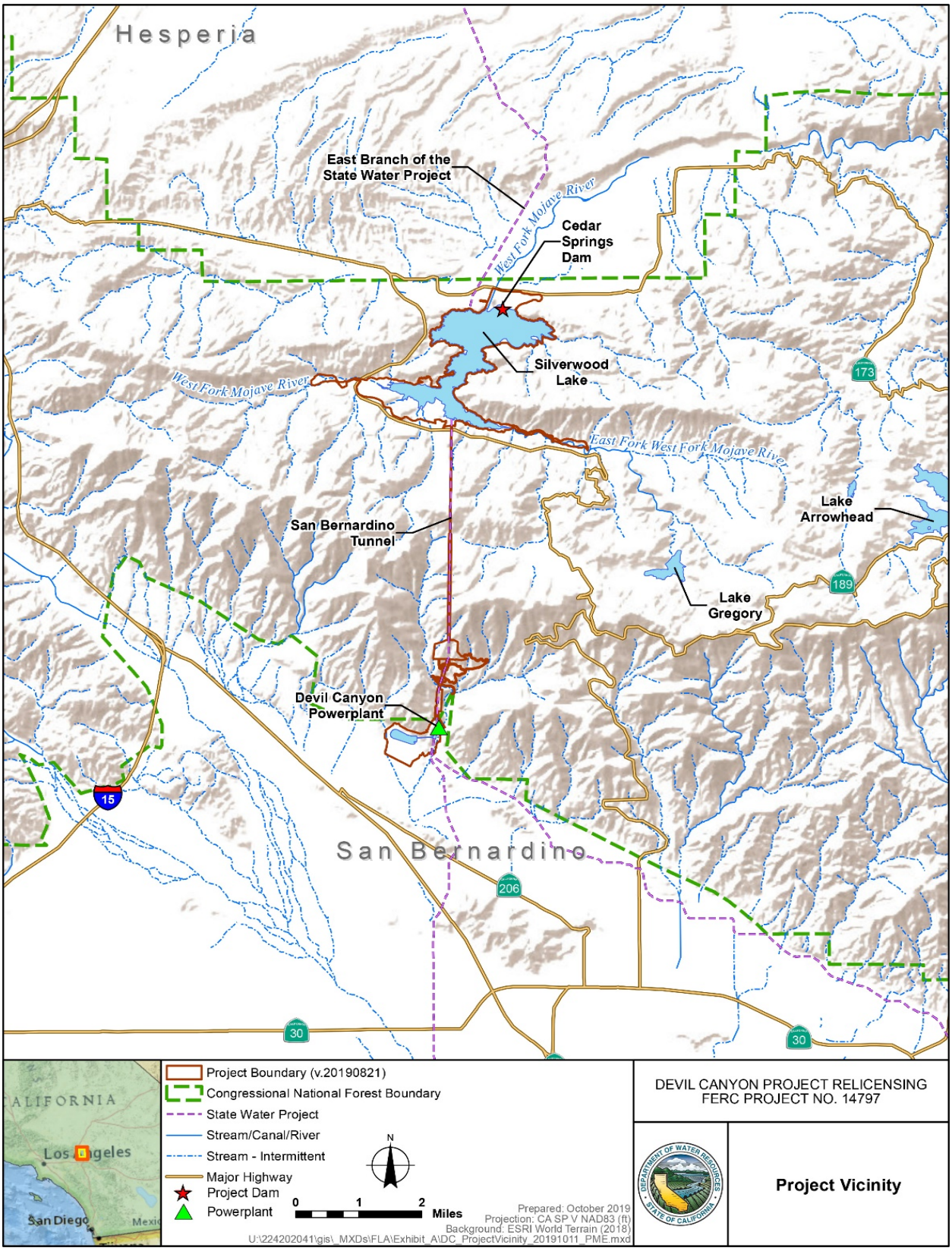

Figure 1.1-1. Devil Canyon Project Vicinity

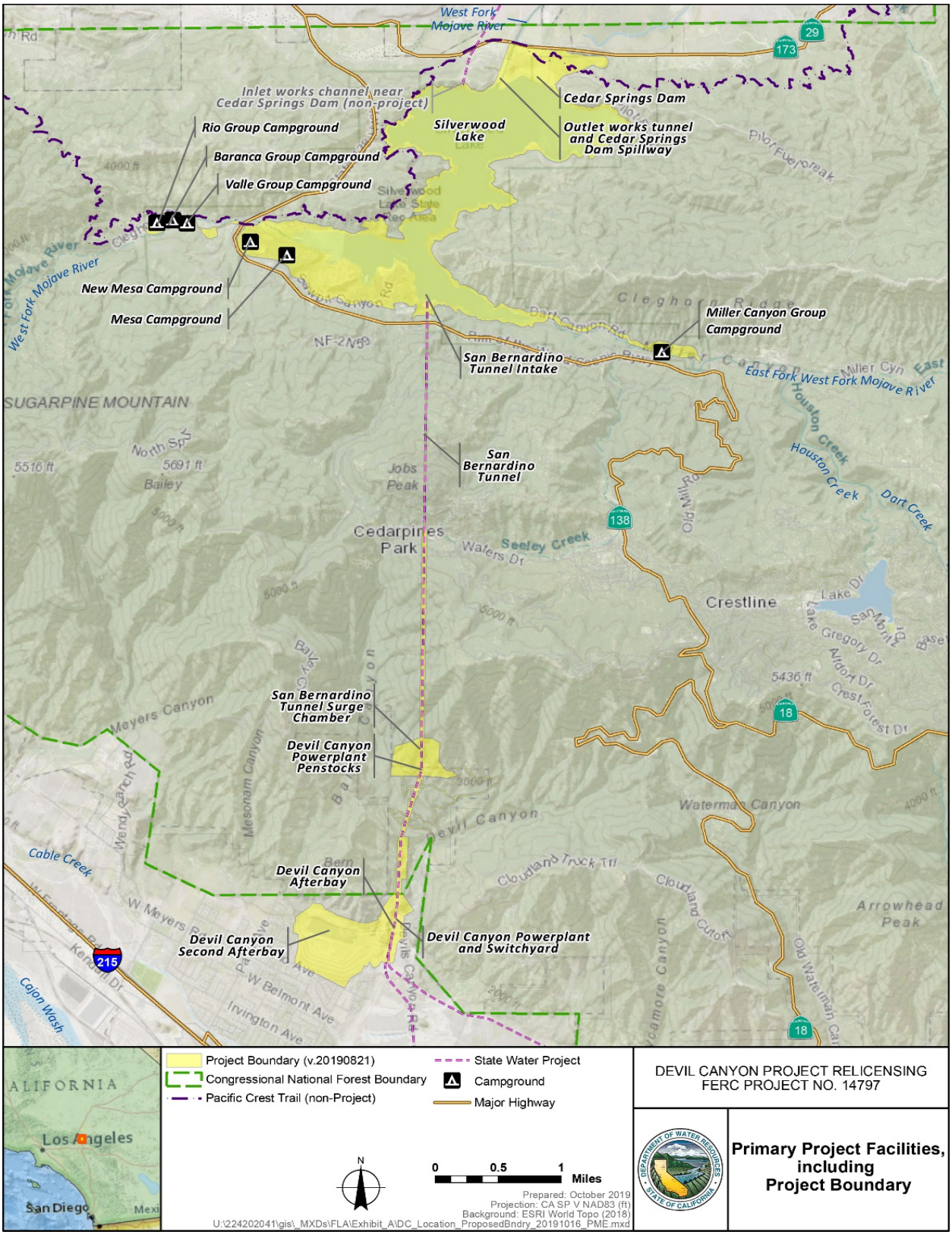

Figure 1.1-2. Devil Canyon Project Boundary

2.0 METHODS

A variety of methods and research were utilized in the development of this Plan, all of which are summarized in the sub-sections that follow.

2.1 INFORMATION/DATA COLLECTION AND RESEARCH

The information sources and data listed below relating to fire prevention, suppression, and fuel management on lands within the Project boundary were reviewed to provide appropriate background and technical reference for the development of this Plan. Note that not all of the information sources listed below may be applicable to the Project and DWR.

2.1.1 Federal Agency Land Use and Resource Management Plans

The following federal land use and resource management plans were reviewed for development of this Plan:

- SBNF Land Management Plan 2006 Revision Final Environmental Impact Statement, Record of Decision (USFS 2006)
- SBNF Land Management Plan, Part 2 (USFS 2005)
- SBNF Land Management Plan Monitoring and Evaluation Report: Fiscal Year 2016 (USFS 2017)

2.1.2 Fire Management, Fire Prevention, Fire Response, and Fuel Management Plans

The following federal, State, local and interagency fire prevention, management, and response plans were reviewed for development of this Plan:

- California Department of Forestry and Fire Protection (CAL FIRE) San Bernardino Unit Strategic Fire Plan for San Bernardino, Inyo and Mono Counties, 2017 (CAL FIRE 2017)
- USFS Fire Management Planning Guide, 2017 (USFS 2017)
- Forest Service Manual (FSM) 5100 – Forest Service Policies for Wildland Fire Management – Wildfire Prevention (USFS 2010)
- Forest Service Handbook 5109.18 – Forest Service Wildland Fire Prevention Handbook (USFS 2015)
- CAL FIRE, Strategic Fire Plan for California, 2012 (CAL FIRE 2012)
- San Bernardino County, Community Wildfire Protection Plan, Arrowhead Communities (San Bernardino County 2005a)

- San Bernardino County, Community Wildfire Protection Plan, Wrightwood Communities (San Bernardino County 2005b)

- California Interagency Mobilization Guide, 2018 (California Wildland Fire Coordinating Group 2018)

- Interagency Standards for Fire and Fire Aviation Operations, 2016 (DOI and USDA 2016)

- The National Strategy, The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy, 2014 (Wildland Fire Leadership Council 2014)

2.1.3 Federal Agency Management Goals for Implementation of Fire Prevention and Response Actions

The Interagency Standards for Fire and Fire Aviation Operations (DOI and USDA 2016) contain fire and fire aviation program management direction for federal land managers on federal lands at the following federal agencies: USFS; Bureau of Land Management (BLM); U.S. Fish and Wildlife Service (USFWS); and the National Park Service.

The Interagency Standards work concurrently with the guiding principles of two other main federal policies for management of wildland fires on federal lands: the 1995 Federal Wildland Fire Management Policy and the Guidance for Implementation of Federal Wildland Fire Management Policy. The 1995 Federal Wildland Fire Management Policy has 17 elements that are detailed in the Interagency Standards document. The Guidance for Implementation of Federal Wildland Fire Management Policy details guidelines for implementing policy consistent with federal wildland fire policy. Also, each of the four federal agencies has its own fire management and fire aviation goals that are also outlined in the Interagency Standards.

2.1.4 Cooperative Agreements, Regulations, and Codes

Federal, State, and local agencies' cooperative agreements, regulations, and codes related to fire protection, prevention, and suppression activities within or near the Project boundary were reviewed. These references include: California Public Resource Codes (CPRC) 4291-4293, 4421-4446; California Health and Safety Codes 12101, 13000, 13001, and 13005; the FSM 5100; CAL FIRE Power Line Fire Prevention Field Guide (2008); the California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (2013-2018); and Current San Bernardino County Fire Code.

2.1.5 Emergency Communication Plans

Federal, State, and local fire agency emergency management, fire dispatch, and mobilization plans and documents were reviewed. These included:

- Project-related fire prevention and safety plans
- Federal Interagency Communications Center, 2018

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3.0 FIRE PREVENTION AND PROTECTION ACTIONS

3.1 GENERAL FIRE PREVENTION AND PROTECTION ACTION SUMMARY

DWR Project operators will adhere to the following codes, regulations, requirements, measures, and activities on NFS lands:

- The general fire prevention requirements applicable to Project-related operations, maintenance, equipment, tool use, and fire use activities
- SBNF's project activity levels (PAL) fire restrictions

DWR will contact DPR when Project maintenance or repair will be conducted on State park property and will coordinate proper fire contingency specifications with DPR.

3.2 SPECIFIC FIRE PREVENTION AND PROTECTION REQUIREMENTS APPLICABLE TO PROJECT-RELATED OPERATIONS AND MAINTENANCE

DWR will, for the purposes of this Plan, follow the specific fire prevention and protection measures listed below that are applicable to O&M for the Project.

- DWR will secure special written permission from the SBNF's District Ranger (on NFS lands), District Fire Management Officer (on NFS lands), CAL FIRE battalion chief (on private lands only), or any of their officially designated representatives, before engaging in any of the activities listed below:
    - Blasting and storage of explosives and detonators (explosives permit required by California Health and Safety Code, Section 12101)
    - Burning, as authorized under the current operating plan
    - Welding, cutting, and grinding; DWR always follows Code of Safe Work Practices and established DWR Policies and Procedures for safe work, especially hot work
- In the event of discovery of a fire within the Project boundary, the Area Control Center (ACC) will notify USFS and/or CAL FIRE dispatch centers.
- In general, DWR may equip each work-related O&M vehicle on NFS lands with the following firefighting equipment at all times:
    - A round point shovel with an overall length of not less than 46 inches (for clearing away flammable materials); a rake may be used, but it may not be a substitute for the shovel on the vehicle
    - One backpack water pump ready for use
    - One five-pound or greater ABC fire extinguisher

  - An axe and saw
  - Radio for coordination with the DWR Control Center in the event of a fire on NFS lands.

- DWR normally provides to O&M work groups in the field a water trailer with one of the vehicles.
- Firefighting equipment will be accessible at the job site in the event of an emergency.
- National Fire Protection Association placards will be posted at locations with hazardous materials to alert emergency responders.

DWR will review the SBNF PAL website or call the dedicated phone line daily for NFS lands to determine the PAL. See Appendix A, Fire Plan for Construction and Service Contracts, for PAL requirements. If emergency repairs on NFS lands (i.e., those repairs necessary for public safety or to prevent damage to facilities) are necessary that require welding, grinding, or cutting, and DWR does not have a permit, DWR will strive to follow the "Very High" fire rating restrictions, have appropriate fire safety equipment available on site, and notify the Duty Officer at the SBNF by phone as soon as reasonably possible after responding to the emergency. In the event of an emergency, DWR staff onsite will contact DWR's ACC and the ACC will then contact the responsible fire agency while staff onsite proceed with emergency repairs.

3.3 PROJECT OPERATIONS REQUIRING THE USE OF FIRE/BURNING

DWR will obtain permission from SBNF prior to burning on NFS lands.

3.4 PROTECTION, APPLICABLE CODES, AND CODE COMPLIANCE ACTIONS

DWR practices ongoing fire protection measures to comply with applicable codes and safeguard Project assets. For example, DWR creates a defensible space around all Project structures, including the powerplant and recreation facilities, by routinely clearing vegetation in the immediate vicinity. This includes periodic inspections to determine the need for vegetation removal, hazard tree trimming/removal, and compliance with CPRC clearance requirements. These efforts are expected to provide an effective level of fire protection and prevention within the Project boundary.

3.5 FIRE PREVENTION REQUIREMENTS FOR PROJECT AREA TOOL AND EQUIPMENT USE

DWR's Operations staff involved with any type of equipment/tool use within the Project boundary will take specific fire prevention actions and measures. Tools and equipment may be inspected by CAL FIRE or USFS, if the work is on NFS lands, to continue compliance with fire safety rules. DWR will follow the applicable equipment use-specific restrictions detailed by PAL ratings, as identified in Appendix A.

3.6 FIRE HAZARD ZONE LEVELS

USFS and CAL FIRE use the Fire Hazard Zone model to evaluate fire hazard severity zones within the local responsibility areas (CAL FIRE 2018). In turn, the results of the zone model are used as a tool to create local ordinances for planning purposes. Nearly all of the area within the Project boundary lies within the Very High fire hazard level, and within the Moderate fire hazard level along the perimeter of Silverwood Lake in the northern portion of the Project area. Figure 3.6-1 shows land ownership in the Project vicinity, and Figure 3.6-2 shows fire hazard levels as designated by the SBNF and CAL FIRE in the vicinity of the Project boundary.

3.7 PROJECT ACTIVITY LEVEL PLANNING REQUIREMENTS FOR THE PROJECT AREA

USFS has a fire prevention process that determines fire danger each day on NFS lands as displayed by PAL. The PAL is implemented and administered to regulate activities of private companies performing work on NFS lands. For DWR's Project O&M that involves equipment/tool use within the Project boundary, DWR will monitor fire danger conditions and comply with the appropriate PAL fire prevention requirements. Project vicinity lands reside within SBNF PAL jurisdictions.

The SBNF may, in most cases, determine the following day's activity level on NFS lands by 4:00 p.m. each afternoon. DWR can obtain Project Area PAL fire and activity restrictions on NFS lands for the following day by calling 909-382-2997, or going to the SBNF website after 4:00 p.m.: https://www.fs.usda.gov/detailfull/sbnf/alerts-notices/?cid=stelprdb5156627&width=full. DWR will then comply with the prescribed requirements and restrictions for that day.

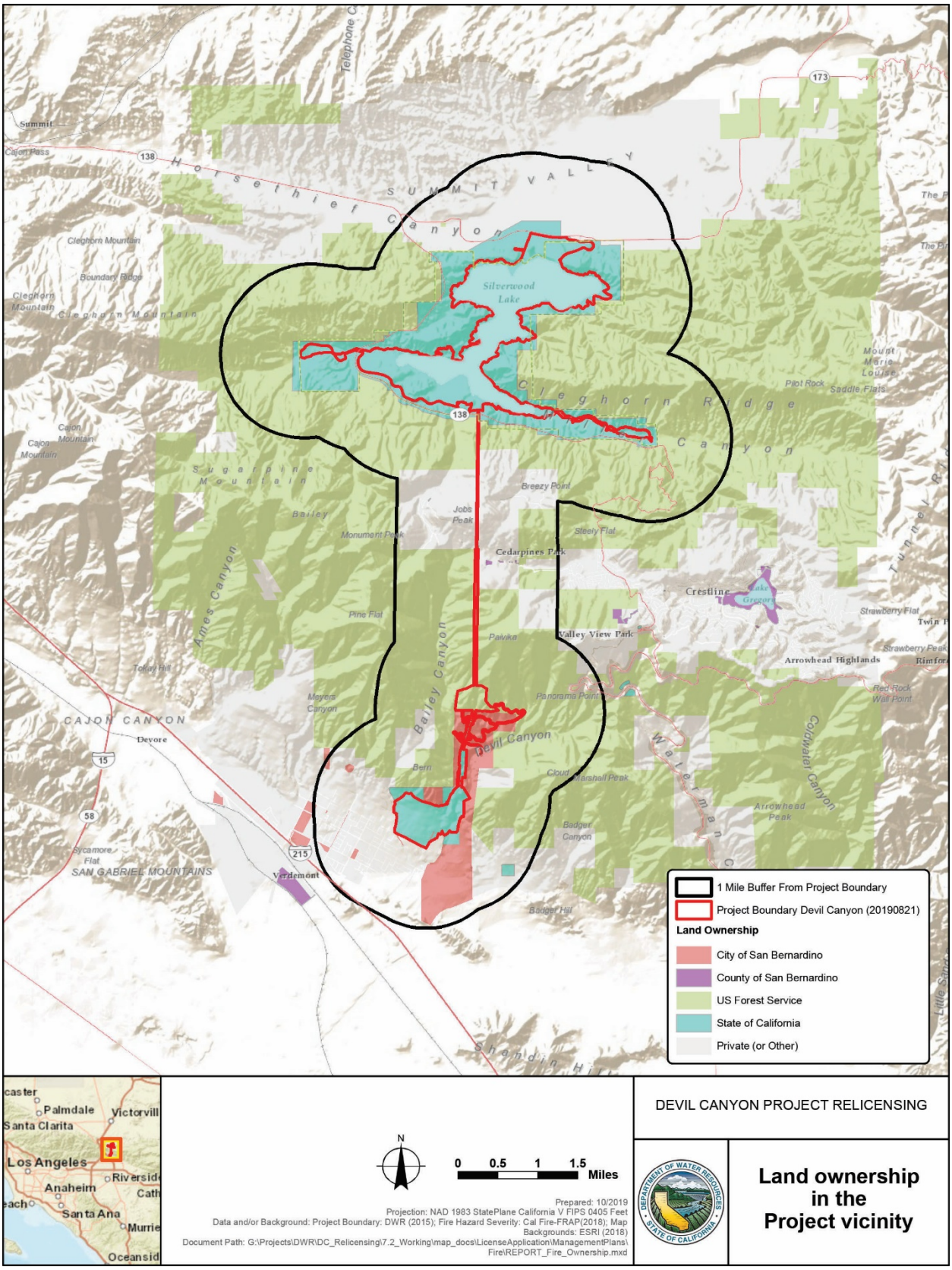

Figure 3.6-1. Land Ownership in the Project Vicinity

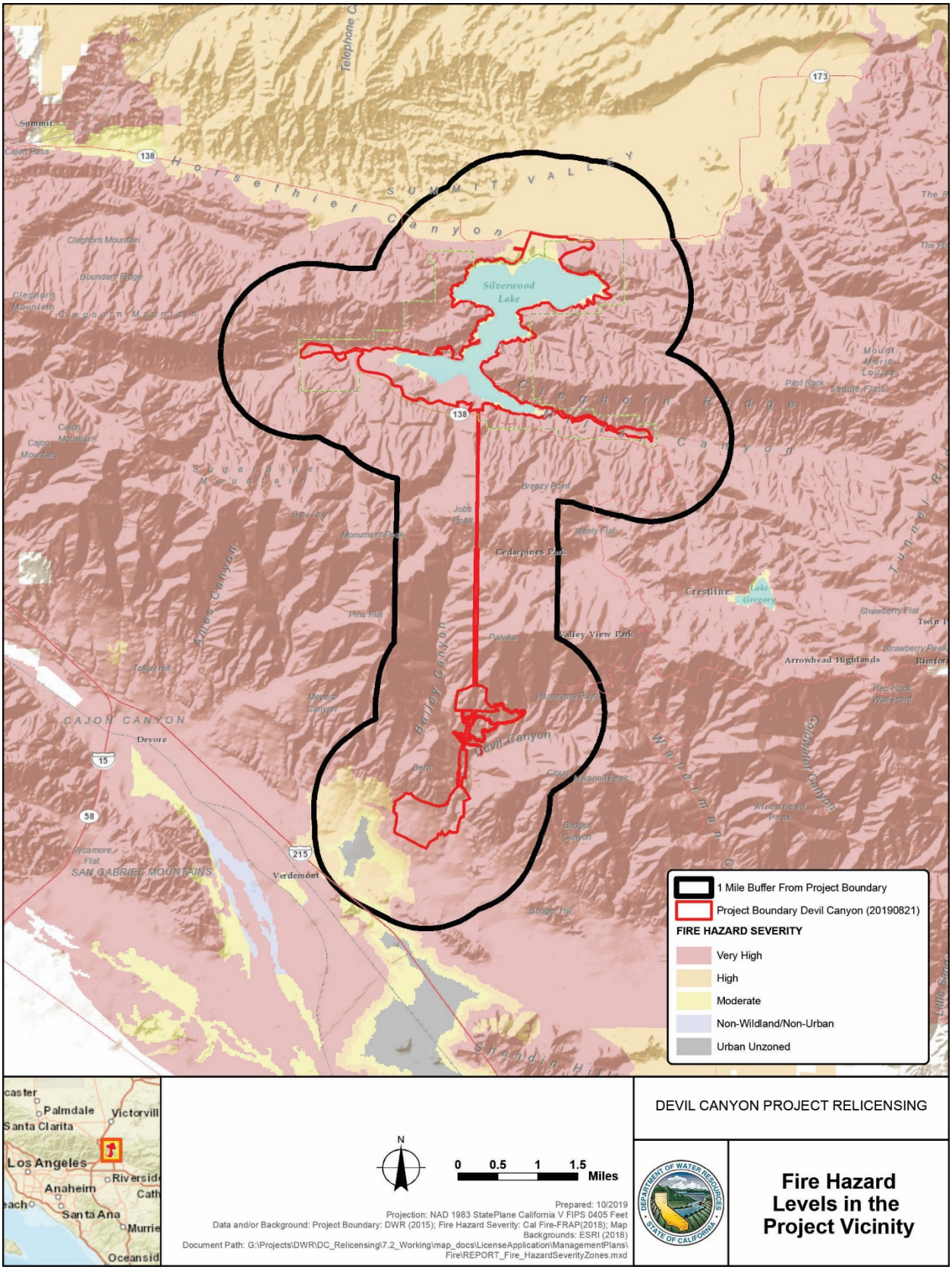

Figure 3.6-2. Fire Hazard Levels in the Project

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4.0 FIRE RESPONSE ACTIONS

4.1 EMERGENCY RESPONSE PREPAREDNESS

Generally, DWR's Operation staff vehicles and contractor vehicles have axes, saws, shovels, and radios while in the field to facilitate DWR's emergency response preparedness and prevent or extinguish small fires. They may also have a water trailer with one of the vehicles.

4.2 REPORTING FIRES

DWR will report Project-related fires and any fire it detects within the Project boundary by calling 9-1-1.

When reporting a wildland fire, DWR personnel will provide incident information, which may include the following:

- Reporting party's name
- Radio number; office or cell phone call back number
- Fire estimated location:
    - Legal or global positioning system location description (township, range, section or latitude and longitude), if available at the time
    - Descriptive location (road or geographic reference point)
- Best access routes in DWR's Operations staff opinion
- Incident size estimate (in acres)
- Incident status
- Estimated rate of fire growth or spread
- Weather conditions
- Radio frequencies
- Special hazards and concerns, if DWR's Operations staff are aware of any
- Additional resource needs, if DWR's Operations staff are aware of any

4.3 FIRE CONTROL/EXTINGUISHING FIRES

Fire suppression within the Project boundary is the responsibility of three agencies. Fire suppression in the Silverwood Lake SRA is managed by CAL FIRE, suppression on

NFS lands is the responsibility of USFS, and suppression at the Devil Canyon Powerplant and associated facilities are within the jurisdiction of the San Bernardino County Fire Department (Figure 3.6-1). (State of California 2012.)

Each public agency within the Project boundary has its own communication center for coordinating the mobilization of resources for wildland fire and other incidents. Should a wildfire occur within the Project boundary, DWR would call 9-1-1, which would contact the appropriate jurisdiction. On NFS lands, the SBNF Communication Center is the central location for coordinating USFS resources. On private lands, CAL FIRE's San Bernardino Unit Emergency Command Center is the central location for coordinating resources.

4.4 EMERGENCY EVACUATION PLANS

DPR has an Emergency Evacuation Plan for the Silverwood Lake SRA. Also, DWR has an Emergency Action Plan that is routinely tested with key agencies including DPR and USFS. Any emergency evacuation triggered by a wildfire would be directed by the agency responsible for controlling the wildfire (i.e., CALFIRE, USFS, and/or San Bernardino County Fire Department).

4.5 ROAD ACCESS

Portions of the Project boundary are normally accessible by fire suppression crews through federal, State, City of San Bernardino, and NFS roads, and by DWR's Primary Project access roads, though DWR cannot ensure access by fire suppression crews to these areas under all conditions. A description of potential access routes is provided below.

4.5.1 Directions to Project Facilities

4.5.1.1 Devil Canyon Powerplant

Take Interstate Highway 215 to the University Parkway exit then proceed north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road to the Devil Canyon Powerplant complex, a fenced and gated area at 6900 Devils Canyon Road in San Bernardino, California. The complex is closed to the public at the entrance gate.

The routes to access each Project facility are described below. Road lengths provided below are rounded to the nearest tenth of a mile and based on Google Maps road and routing data.

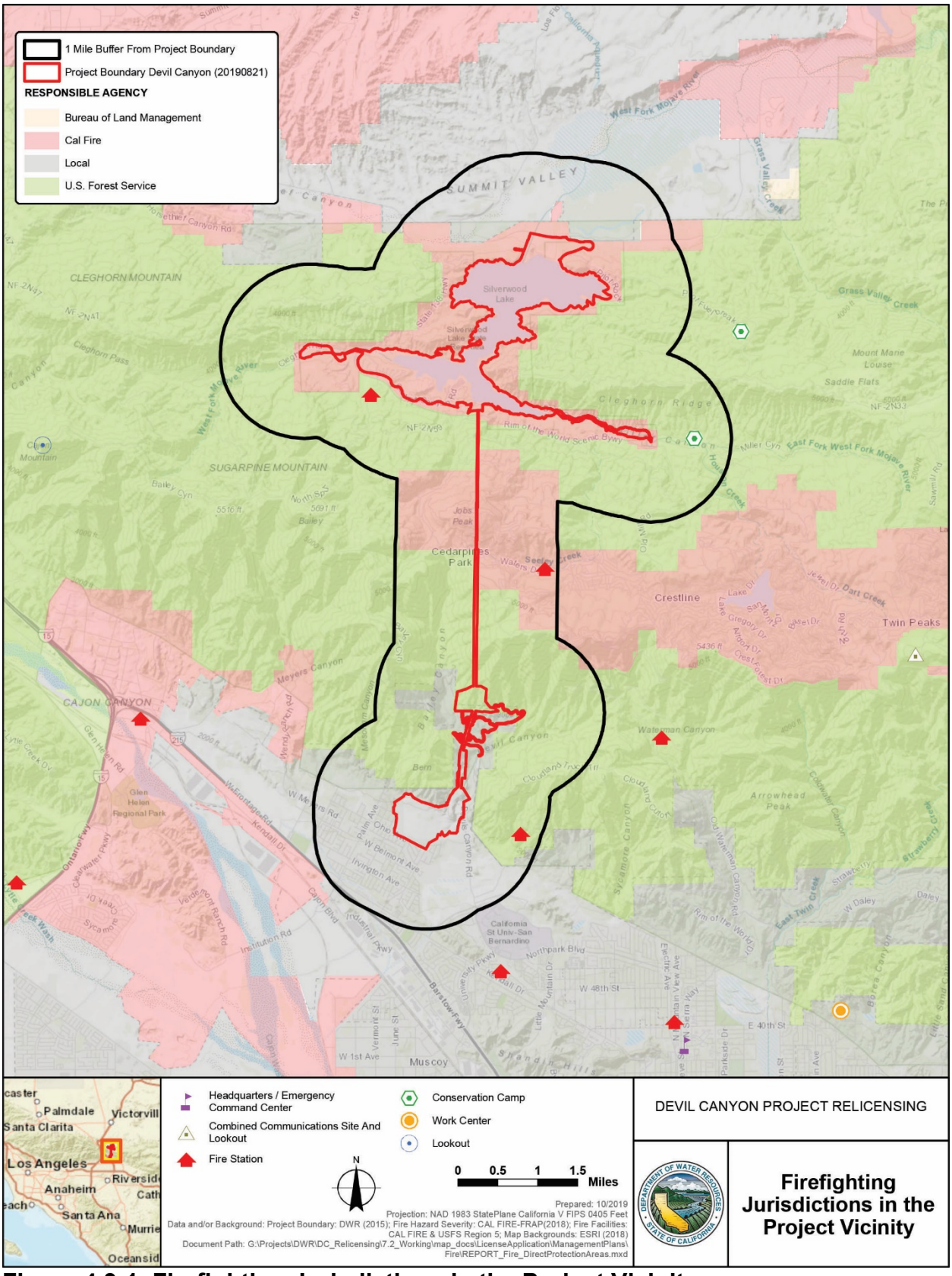

Figure 4.3-1. Firefighting Jurisdictions in the Project Vicinity

4.5.1.2 San Bernardino Tunnel Outlet

Take Interstate Highway 215 to the University Parkway exit and head north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road past the Devil Canyon Powerplant complex at 6900 Devils Canyon Road, 0.9 miles to the locked gate. Beyond the locked gate, the road is named Tunnel Outlet Access Road. Continue beyond the gate for 2.1 miles to the fork/junction. Take the left fork option and travel 0.3 miles to the San Bernardino Tunnel Outlet, where the tunnel transitions to above ground penstocks.

4.5.1.3 San Bernardino Tunnel Surge Chamber

Take Interstate Highway 215 to the University Parkway exit and head north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road past the Devil Canyon Powerplant complex at 6900 Devils Canyon Road, 0.9 miles to the locked gate. Beyond the locked gate, the road is named Tunnel Outlet Access Road. Continue beyond the gate for 2.1 miles to the fork/junction. Take the right fork option and then drive another 0.4 miles along the Surge Chamber Access road to the Surge Chamber.

4.5.1.4 Devil Canyon Powerplant Penstocks, Upper Portion

The upper portion of the penstocks can be accessed at several locations along the alignment of the penstocks. This description provides directions to the uphill and downhill ends of the penstocks.

Take Interstate Highway 215 to the University Parkway exit and head north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road past the Devil Canyon Powerplant complex at 6900 Devils Canyon Road, 0.9 miles to the locked gate. Beyond the locked gate, the road is named Tunnel Outlet Access Road. Continue beyond the gate for 0.5 miles to the downhill end of the upper penstocks. To access the uphill end of the upper penstocks, continue another 1.6 miles up Tunnel Outlet Access Road to a fork/junction of the Tunnel Outlet Access Road. Take the left fork option and travel 0.3 miles to the uphill end of the upper penstocks.

4.5.1.5 Devil Canyon Powerplant Penstocks, Lower Portion

The lower portion of the penstocks can be accessed at several locations along the alignment of the penstocks. This description provides directions to the uphill and downhill ends of the penstocks.

To access the downhill end of the lower penstocks, take Interstate Highway 215 to the University Parkway exit and head north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road to the Devil Canyon Powerplant complex, a fenced and gated area at 6900 Devils Canyon Road in San Bernardino, California. The complex is closed to the public at the entrance gate. Once inside the complex, proceed west 300 feet on Memory

Lane, then turn right following the access road along the east shore of the afterbay, past the powerhouse, uphill and north of the powerhouse.

To access the uphill end of the lower penstocks, take Interstate Highway 215 to the University Parkway exit and head north. From University Parkway, turn left onto Northpark Boulevard West, which becomes Devils Canyon Road. Continue on Devils Canyon Road to the Devil Canyon Powerplant complex, a fenced and gated area at 6900 Devils Canyon Road in San Bernardino, California. The complex is closed to the public at the entrance gate. Once inside the complex, proceed west 0.1 miles on Memory Lane, then turn left and proceed south 0.2 miles to the fork in the road. Take the right fork and follow this road completely around (clockwise) the lower afterbay and proceed up the hill alongside the penstocks for 2.4 miles, making sure to take the right fork at 1.8 miles, to the uphill end of the lower penstocks. Taking the right fork at 1.8 miles eliminates the need to use a penstocks undercrossing that might present clearance issues with larger vehicles.

4.5.1.6 Cedar Springs Dam and Spillway

Cedar Springs Dam and Spillway are located immediately adjacent to State Highway 173. To access the facilities, from the Highway 173 bridge over the Cedar Springs Spillway, proceed 0.1 miles east to the gated entry to the dam facility on the south side of the highway. Continue 0.3 miles uphill on the paved access road from the highway to the crest of the dam and the top of the dam spillway. Access extends across the crest of the dam to a locked gate on the east end of the dam. Beyond this locked gate is public access to the Pilot Rock off highway vehicle parking area via Forest Service Road 2N33, which extends 0.8 miles back down to Highway 173.

4.5.1.7 Project Recreation Facilities at Silverwood Lake SRA

From the Highway 173 bridge over the Cedar Springs Spillway, proceed 2 miles west to the junction with State Highway 138. Turn left onto Highway 138 (east) and proceed 2.6 miles to the Cleghorn Road exit. Turn left and proceed under the highway onto Sawpit Canyon Road. Continue 0.5 miles to the Silverwood Lake SRA entrance station at 14000 Sawpit Canyon Road.

4.5.1.8 San Bernardino Tunnel Intake

From the Highway 173 bridge over the Cedar Springs Spillway, proceed 2 miles west to the junction with State Highway 138. Turn left onto Highway 138 (east) and proceed 2.6 miles to the Cleghorn Road exit. Turn left and proceed under the highway onto Sawpit Canyon Road. Continue 0.5 miles to the Silverwood Lake SRA entrance station at 14000 Sawpit Canyon Road. From the entrance station, continue on Sawpit Canyon road 1.2 miles to Lake Boat Launch Road. Turn right and continue 0.1 miles to the right turn leading up to the water treatment plant (restricted access at gate). Continue 0.2 miles on the access road toward the south shore of Silverwood Lake to the San Bernardino Tunnel Intake.

4.5.2 Directions from the Project Facilities

4.5.2.1 Devil Canyon Powerplant

Follow the road south along the east side of the afterbay to Memory Lane. Turn left onto Memory Lane and proceed through the facility security gate to Devils Canyon Road. Turn right and continue on Devils Canyon Road 1.5 miles into the urban area adjacent to California State University San Bernardino.

4.5.2.2 San Bernardino Tunnel Outlet

Depart the San Bernardino Tunnel Outlet and proceed 0.3 miles to the three-way intersection. Bear right and proceed down Tunnel Outlet Access Road 2.1 miles to the gate/start of Devils Canyon Road. Continue on Devils Canyon Road 2.4 miles into the urban area adjacent to California State University San Bernardino.

4.5.2.3 San Bernardino Tunnel Surge Chamber

Depart the San Bernardino Tunnel Surge Chamber and proceed 0.4 miles to the three-way intersection. Bear left and proceed down Tunnel Outlet Access Road 2.1 miles to gate and start of Devils Canyon Road. Continue on Devils Canyon Road 2.4 miles into the urban area adjacent to California State University San Bernardino.

4.5.2.4 Devil Canyon Powerplant Penstocks, Upper Portion

Directions from each end of the Upper Portion of the Penstocks are described below.

For the uphill end, depart the upper portion of the San Bernardino Tunnel Outlet and proceed 0.3 miles to the three-way intersection. Bear right and proceed down Tunnel Outlet Access Road 2.1 miles to the gate and start of Devils Canyon Road. Continue on Devils Canyon Road 2.4 miles into the urban area adjacent to California State University San Bernardino.

For the downhill end, proceed down Tunnel Outlet Access Road 0.5 miles to the gate and start of Devils Canyon Road. Continue on Devils Canyon Road 2.4 miles into the urban area adjacent to California State University San Bernardino.

4.5.2.5 Devil Canyon Powerplant Penstocks, Lower Portion

Directions from each end of the Lower Portion of the penstocks are described below.

Depart the downhill end of the lower portion of the penstocks by following the road south along the east side of the afterbay to Memory Lane. Turn left onto Memory Lane and proceed through the facility security gate to Devils Canyon Road. Turn right and continue south on Devils Canyon Road 1.5 miles into the urban area adjacent to California State University San Bernardino.

Depart the uphill end of the lower portion of the penstocks by following the road 2.4 miles south alongside the penstocks (crossing over the top of the penstocks) then looping around the lower afterbay counterclockwise to the intersection with Memory Lane. Turn left (north) onto Memory Lane and continue for 0.3 miles to the locked gate at the intersection with Devils Canyon Road. Continue south on Devils Canyon Road 1.5 miles into the urban area adjacent to California State University San Bernardino.

4.5.2.6 Cedar Springs Dam and Spillway

Cedar Springs Dam and Spillway are located immediately adjacent to State Highway 173. To depart the facilities, proceed 0.3 miles north/downhill to the gated entry to the dam facility on the south side of Highway 173. Alternately, depart the east side of the dam crest and proceed to the locked gate at Forest Service Road 2N33. Continue down 2N33 for 0.8 miles to Highway 173.

4.5.2.7 Project Recreation Facilities at Silverwood Lake SRA

Proceed north 0.5 miles from the Silverwood Lake SRA entrance station to the onramp for Highway 138 at Cleghorn Road. To get to Highway 173, continue 2.6 miles west/north on Highway 138.

4.5.2.8 San Bernardino Tunnel Intake

Proceed 0.2 miles west on the access road towards the water treatment plant. Continue through the gate on the north side of the plant to Lake Boat Launch Road. Follow Lake Boat Launch Road 0.1 miles to Sawpit Canyon Road. Turn left onto Sawpit Canyon Road and continue 1.2 miles to the Silverwood Lake SRA entrance station. Then proceed north 0.5 miles from the Silverwood Lake SRA entrance station to the onramp for Highway 138 at Cleghorn Road. To get to Highway 173, continue 2.6 miles west/north on Highway 138.

4.6 HELICOPTER LANDING ZONES WITHIN THE PROJECT BOUNDARY

While all Project facilities normally may be accessed by road, fire suppression activities may require the use of helicopters. There are no dedicated helicopter landing zones within the Project boundary or within the Project vicinity; however, three helibases are located within 30 miles of the Project: (1) the SBNF's Heaps Peak Heliport, located approximately 11 miles east of the Project; (2) the CAL FIRE San Bernardino Unit's Prado Helitack, located approximately 27 miles southwest of the Project; and (3) the BLM's Apple Valley Helibase, located approximately 28 miles north-northeast of the Project.

4.7 FIRE SUPPRESSION EQUIPMENT AND PERSONNEL

DWR does not own fire suppression equipment suitable for combating wildland fires (e.g., fire trucks and helicopters). Fire suppression equipment owned by DWR within the Project boundary primarily consists of fire extinguishers located at Project buildings and in employee vehicles. Other fire suppression equipment owned by DWR is located at

various Project facilities and consists of permanently installed carbon dioxide systems within the powerplant and a water trailer, as mentioned in Appendix A, backpack water tanks, shovels, picks and axes. This portable equipment is deployed along with DWR work crews who are participating in activities that may potentially require fire suppression equipment above and beyond hand-held extinguishers (e.g., welding, facilities and equipment repair in heavily vegetated areas, and use of heavy equipment). While equipment for suppression is limited, water from all Project reservoirs is available to agencies responding to wildland fires.

DWR has personnel available to provide technical information and support for USFS and CAL FIRE operations in and adjacent to the Project. DWR employees and contractors will normally attempt to respond to fires that are a result of their activities, if the circumstances permit the safe containment and extinguishment of the fire. However, DWR Operations staff and contractors are not trained or required to fight fires.

CAL FIRE's San Bernardino Unit includes the following resources located within a radius of approximately 50 miles from the Project: 11 fire stations, 25 engines (Type 3), and 1 helicopter (Type 2), based out of the Prado Helitack located approximately 27 miles southwest of the Project (CAL FIRE 2017). The San Bernardino County Fire Stations located closest to the Devil Canyon Powerhouse are stations #227 and #232, and the stations closest to the Silverwood Lake area are stations #25 and #26; emergency contact information for these four county fire stations is provided below in Section 4.7.1.2

CAL FIRE's San Bernardino Unit maintains automatic aid agreements with all fire agencies within and adjacent to San Bernardino County (i.e., San Bernardino County Fire Department, SBNF, Angeles National Forest, BLM, National Park Service, Apple Valley Fire Department, Rancho Cucamonga Fire Department, Redlands Fire Department, and Running Springs Fire Department) (CAL FIRE 2017). The San Bernardino Unit Emergency Command Center has dispatch agreements with Arrow Bear Fire Department, Morongo Fire Department, Newberry Fire Department, and Yermo-Dagget Fire Department (CAL FIRE 2017).

The Federal Interagency Communications Center provides 24-hour dispatching, 365 days a year, and includes services such as: 100+ uniformed law enforcement officers, 7 special agents, 35 fires stations, 7 active fire lookouts, 20 fire prevention units, 70 forest protection officers, 6 hand crews, 1 fuels crew, 3 helicopters, 2 air tankers, 1 helitanker, 1 air attack, 1 law enforcement patrol plane, and 1 dozer.

4.8 KEY PERSONNEL CONTACT DIRECTORY

4.8.1 Emergency Contacts

4.8.1.1 USFS Emergency Contacts – San Bernardino National Forest

SBNF contacts for emergency fire-related issues:

Federal Interagency Communication Center: (909) 383-5652

SBNF Emergency Operations Unit: (909) 383-5651, or (909) 383-5651 for night or 24-hour emergency

4.8.1.2 CAL FIRE / San Bernardino County Fire Department Emergency Contacts

CAL FIRE and San Bernardino County Fire Department contacts for emergency fire-related issues:

San Bernardino County Fire Department: 9-1-1

San Bernardino County - Office of Emergency Management: (909) 356-3998, and at Hesperia (760) 995-8285

Arson Hotline: (800) 472-7766 (47 ARSON) Ext 1

San Bernardino Unit Emergency Command Center: secondary 9-1-1 responders

San Bernardino County
Office of the Fire Marshall
620 South E Street
San Bernardino, CA 92415
(909) 386-8400

San Bernardino County Fire Stations located closest to Devil Canyon Powerhouse:

San Bernardino Station (Station #232)
6065 Palm Ave.
San Bernardino, CA 92407
(909) 880-2137

San Bernardino Station (Station #227)
282 W 40th St.
San Bernardino, CA 92407
(909) 384-5407

San Bernardino County Fire Stations located closest to Silverwood Lake area:

Crestline Station (Station #25)
23407 Crest Forest Dr.
Crestline, CA 92325
(909) 338-0625

Twin Peaks Station (Station #26)
737 Grandview Rd.
Twin Peaks, CA 92391
(909) 337-8326

4.8.2 Non-Emergency Contacts

4.8.2.1 USFS Non-Emergency Contacts – San Bernardino National Forest

SBNF fire management contacts for non-emergency Project vegetation or fire-related issues:

SBNF Supervisor's Office
Recreation and Land Use Staff Officer
602 S. Tippecanoe Avenue
San Bernardino, CA 92408
(909) 382-2600

4.8.2.2 CAL FIRE / San Bernardino County Fire Department Non-Emergency Contacts

CAL FIRE and San Bernardino County Fire Department contacts for non-emergency Project vegetation or fire-related issues:

Fire Department (CAL FIRE San Bernardino Unit): (909) 881-6900; or at night (909) 883-1112

4.8.2.3 State Parks Non-Emergency Contacts

State Parks fire management contacts for non-emergency Project vegetation or fire-related issues:

State Parks
Silverwood Sector Office
Silverwood Sector Superintendent.
760-389-2281

4.8.2.4 DWR Non-Emergency Contacts – Devil Canyon Project

DWR contacts for non-emergency fire-related issues:

Main Telephone: (661) 944-8600 – DWR Dispatch

Alternative (661) 944-8760 – Devil Canyon Facility

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5.0 CONSULTATION, REPORTING, AND PLAN REVISIONS

5.1 CONSULTATION AND REPORTING

DWR will annually review with the SBNF activities related to fire prevention and response on NFS lands during the previous calendar year, as well as any activities related to fire resources on NFS lands planned for the current calendar year. In addition, DWR will consult with the SBNF, as needed, regarding fire resources and wildfires on NFS lands.

5.2 PLAN REVISIONS

DWR, in consultation with the SBNF, will review, update, and/or revise this Plan as it pertains to NFS lands. Any updates to the Plan will be prepared in coordination and consultation with the SBNF. The SBNF will have 60 days after receipt of the updated plan to provide written comment and recommendations before DWR files the updated Plan with FERC for FERC's approval. DWR will include documentation of all relevant coordination and consultation with the updated Plan filed with FERC. If DWR does not adopt a particular recommendation by the SBNF, the filing will include DWR's reasons for not doing so. DWR will implement the Plan as approved by FERC. The Plan will not be considered revised until FERC issues its approval.

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6.0 REFERENCES CITED

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California Wildland Fire Coordinating Group. 2018. California Interagency Mobilization Guide. Available online: https://gacc.nifc.gov/oncc/mob_guide/2017/2017CompleteCAMobGuide.pdf. Accessed: May 20, 2018.

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U.S. Department of Agriculture, Forest Service (USFS). 2017. Fire Management Planning Guide. July 2017. Available online: https://www.frames.gov/files/1515/1925/2248/Fire_Mgt_Planning_Guide_2017FINAL.pdf. Accessed: June 6, 2018.

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Wildland Fire Leadership Council. 2014. The National Strategy, The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy. April. Washington, D.C. Available online: https://www.forestsandrangelands.gov/strategy/documents/strategy/CSPhaseIIINationalStrategyApr2014.pdf. Accessed: June 6, 2018.

Appendix A

Fire Plan for Construction and Service Contracts

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FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS
08/02/2012

1. SCOPE:

The provisions set forth below outline the responsibility for fire prevention and suppression activities and establish a suppression plan for fires within the contract area. The contract area is delineated by map in the contract. The provisions set forth below also specify conditions under which contract activities will be curtailed or shut down.

2. RESPONSIBILITIES:

A. CONTRACTOR

(1) Shall abide by the requirements of this Fire Plan.

(2) Shall take all steps necessary to prevent his/her employees, subcontractors and their employees from setting fires not required in completion of the contract, shall be responsible for preventing the escape of fires set directly or indirectly as a result of contract operations, and shall extinguish all such fires which may escape.

(3) Shall permit and assist in periodic testing and inspection of required fire equipment. Contractor shall certify compliance with specific fire precautionary measures in the fire plan, before beginning operations during Fire Precautionary Period and shall update such certification when operations change.

(4) Shall designate in the Fire Plan and furnish on Contract Area, during operating hours, a qualified fire supervisor authorized to act on behalf of Contractor in fire prevention and suppression matters.

B. Forest Service

The Forest Service may conduct one or more inspections for compliance with the Fire Plan. The number, timing, and scope of such inspections will be at the discretion of agency employees responsible for contract administration. Such inspections do not relieve the Contractor of responsibility for correcting violations of the fire plan or for fire safety in general, as outlined in paragraph 2.A above.

3. DEFINITIONS:

The following definitions shall apply:

Active Landing: A location the contractor may be skidding logs into, or performing other operations such as delimbing, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiling chips only, on a cleared landing, does not constitute an Active Landing.

Hot Saw: A harvesting system that employs a high-speed (>1100 rpm) rotating felling head, i.e., full rotation lateral tilt head.

Mechanical Operations: The process of felling, skidding, chipping, shredding, masticating, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke delimbers, skidders , dozers etc.

4. TOOLS AND EQUIPMENT:

The Contractor shall comply with the following requirements during the fire precautionary period, as defined by unit administering contracts:

The Fire Precautionary Period is set by the State of California which is April 1 through December 1 of any year.

- **This contract ☐ requires, ☐ does not require, a Fire Box and associated Fire Tools according to CPRC Section 4428.**

A. **Fire Tools and Equipment**: Contractor shall meet minimum requirements of Section 4428 of the California Public Resources Code (C.P.R.C.). Fire tools kept at each operating landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Contractor's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

Trucks, tractors, skidders, pickups and other similar mobile equipment shall be equipped with and carry at all times a size 0 or larger shovel with an overall length of not less than 46 inches and a 2-1/2 pound axe or larger with an overall length of not less than 28 inches.

Where cable yarding is used, Contractor shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump within 25 feet of each tail and corner block.

B. **Fire Extinguishers**: Contractor shall equip each internal combustion yarder, fuel truck, and loader with a fire extinguisher for oil and grease fires (4-A:60-B:C).

Skidders and tractors shall be equipped with a minimum 5-BC fire extinguisher.

All Fire Extinguishers shall be mounted, readily accessible, properly maintained and fully charged.

Contractor shall equip each mechanized harvesting machine with hydraulic systems, powered by an internal combustion engine (chipper, feller/buncher, harvester, forwarder, hot saws, stroke delimber, etc), except tractors and skidders, with at least two 4-A:60-B:C fire extinguishers or equivalent.

C. **Spark Arresters and Mufflers:** Contractor shall equip each operating tractor and any other internal combustion engine with a spark arrester, except for motor vehicles equipped with a maintained muffler as defined in C.P.R.C. Section 4442 or tractors with exhaust-operated turbochargers. Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the. National Wildlife Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be maintained in good operating condition. Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. **Power Saws:** Each power saw shall be equipped with a spark arrester approved according to C.P.R.C. Section 4442 or 4443 and shall be maintained in effective working order. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating power saw. In addition, a size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can but not more than 300 feet from each power saw when used off cleared landing areas.

- **This contract ☐ requires, ☐ does not require, Section 4E of the Fire Plan.**

E. **Tank Truck or Trailer:** Contractor shall provide a **water tank truck or trailer** on or in proximity to Contract Area during Contractor's Operations hereunder during Fire Precautionary Period. When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or immediately adjacent to each active landing, unless otherwise excepted when Hot Saws or Masticators are being used. See Section 6 for specific contract requirements.

The tank shall contain at least 300 gallons of water available for fire suppression. Ample power and hitch shall be readily available for promptly and safely moving tank over roads serving Contract Area. Tank truck or trailer shall be equipped with the following:

(1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Contract Area using a 5/16 inch orifice in the Forester One Inch In-Line Gauge test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation:

Temp	Sea Level		1000 Feet		2000 Feet		3000 Feet		4000 Feet		5000 Feet		6000 Feet		7000 Feet		8000 Feet		9000 Feet		10000 Feet	
55	179	23	174	23	169	23	165	22	161	22	157	22	153	22	150	21	146	21	142	21	139	21
70	175	23	171	23	166	22	162	22	158	22	154	22	150	21	147	21	143	21	139	21	136	20
85	171	23	168	23	163	22	159	22	155	22	151	21	147	21	144	21	140	21	136	20	133	20
100	168	23	164	23	159	22	155	22	152	22	148	21	144	21	141	21	137	20	133	20	131	20
	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM

The pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread. A bypass or pressure relief valve shall be provided for other than centrifugal pumps.

(2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than approximately 50 feet, when measured to the extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.

(3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

	G.P.M.	Horizontal Range
Straight Stream	10	38 feet
Fog Spray	6 - 20	N/A

(4) Sufficient fuel to run the pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

When Contractor is using Hot Saws or Masticators, an additional 250 feet of light weight hose, approved by the Forest Service, shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above.

This equipment and accessories shall be deliverable to a fire in the area of operations and is subject to the requirements for each specific activity level identified in Section 6.

F. <u>Compressed Air Foam System</u>: A Compressed Air Foam System (CAFS) is a fire suppression system where compressed air is added to water and a foaming agent. By agreement, Contractor may substitute a CAFS or functional equivalent in lieu of the tank truck, trailer or fire extinguishers, provided it meets or exceeds the following specifications and requirements:

1. Variable foam expansion ratio – 10:1 to 20:1.
2. Units shall be kept fully charged with air; water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.
3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellent.
4. The unit shall be capable of being completely recharged within 10 minutes.
5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section 4 B. above may be substituted with a 3 gallon CAFS.

Tank truck, trailer or equivalent may be substituted with a 30 Gallon CAFS with at least 550 feet of one inch hose and an adjustable nozzle with enough water, air and foam concentrate for at least one recharge.

This equipment and accessories shall also be deliverable to a fire in the area of operations and subject to the requirements for each specific activity level identified in Section 6.

5. GENERAL

A. **State Law**: In addition to the requirements in this Fire Plan, the Contractor shall comply with all applicable laws of the State of California. In particular, see California Public Resource Codes.

B. **Permits Required**: The Contractor must secure a special written permit from the District Ranger or designated representative before burning, welding or cutting metal or starting any warming fires. If contract requires Blasting and Storing of Explosives and Detonators, an Explosives Permit may be required pursuant to the California Health and Safety Code, Section 12101.

C. **Blasting**: Contractor shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, a Fire Patrolperson equipped with a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump shall remain in the immediate area for an hour after blasting has been completed.

D. **Smoking**: Smoking shall not be permitted during fire season, except in a barren area or in an area cleared to mineral soil at least three feet in diameter. In areas closed to smoking, the CO may approve special areas to be used for smoking. The Contractor shall sign designated smoking areas. Contractor shall post signs regarding smoking and fire rules in conspicuous places for all employees to see. Contractor's supervisory personnel shall require compliance with these rules. Under no circumstances shall smoking be permitted during fire season while employees are operating light or heavy equipment, or walking or working in grass and woodlands.

E. **Storage and Parking Areas**. Equipment service areas, parking areas, and gas and oil storage areas shall be cleared of all flammable material for a radius of at least 10 feet unless otherwise specified by local administrative unit. Small mobile or stationary internal combustion engine sites shall be cleared of flammable material for a slope distance of at least 10 feet from such engine. The COR shall approve such sites in writing.

F. **Reporting Fires**: As soon as feasible but no later than 15 minutes after initial discovery, Contractor shall notify Forest Service of any fires on Contract Area or along roads used by Contractor. Contractor's employees shall report all fires as soon as possible to any of the following Forest Service facilities and/or personnel listed below, but not necessarily in the order shown:

	Name	Office Address	Office telephone
Dispatch Center			
Nearest FS Station			
Inspector			
COR			
District Ranger			

When reporting a fire, provide the following information:

- Your Name
- Call back telephone number
- Project Name

- Location: Legal description (Township, Range, Section); and Descriptive location (Reference point)
- Fire Information: Including Acres, Rate of Spread and Wind Conditions.

- **This contract ☐ requires, ☐ does not require, Section 5G of the Fire Plan.**

G. Communications: Contractor shall furnish a serviceable telephone, radio-telephone or radio system connecting each operating side with Contractor's headquarters. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Contractor's headquarters (or agreed to alternative) and Forest Service via commercial or Forest Service telephone.

- **This contract ☐ requires, ☐ does not require, Section 5H of the Fire Plan.**

H. Fire Patrolperson: Contractor shall furnish a qualified fire patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, sole responsibility of patrolperson shall be to patrol the operation for prevention and detection of fires, take suppression action where necessary and notify the Forest Service as required. This Fire patrol is required on foot, unless otherwise agreed. By agreement, one patrolperson may provide patrol on this and adjacent projects. No patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

The Contractor shall, prior to commencing work, furnish the following information relating to key personnel:

Title	Name	Telephone Number
Fire Supervisor		
Fire Patrolperson		

I. Clearing of Fuels: Contractor shall clear away, and keep clear, fuels and logging debris as follows:

Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law	10 feet slope radius
Tail or corner haulback blocks	All running blocks shall be located in the center of an area cleared to mineral soil at least 15 feet in diameter.
Lines near, between or above blocks	Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material.

6. EMERGENCY PRECAUTIONS

Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Project Activity Levels applicable to this project shall be the predicted activity levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Contract Area Map Legend on Integrated Resource Service Contracts (IRSC's), and other contracts where applicable.

Fire Danger Rating Area/Fire Weather Station for Project: _____

The Forest Service, in its sole discretion, may change the predicted activity level if the current fire suppression situation, weather and vegetation conditions warrant an adjustment. If practicable, Forest Service will determine the following day's activity level by 6:00 PM. Contractor shall obtain the predicted Project Activity Level from the appropriate Ranger District Office before starting work each day.

Phone Number or Website to obtain Predicted Activity Levels: _____

Forest Service may change the Project Activity Level Table to other values upon revision of the National Fire Danger Rating System. When Contractor is notified, the revised Project Activity Levels will supersede the levels in the Project Activity Level Table below.

PROJECT ACTIVITY LEVEL

Level	*Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.*
A	Minimum requirements noted above in Sections 4 and 5.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing.
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer, or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3 No burning, blasting, welding or cutting of metal after 1:00 PM, except by special permit.
Ev	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. 4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are: • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).

Level	***Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.***
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

This Project utilizes "The Project Activity Level" (PAL), an industrial operation's fire precaution system. The following Climatology Chart indicates the Historic Activity Levels for the Project Fire Danger Rating Area or Fire Weather Station utilized on this Project. This is only a historical average of the Activity Levels for the identified Fire Danger Rating Area or Weather Station.

Project Activity Level Climatology

Fire Danger Rating Area/Weather Station					Years Analyzed			
	A	**B**	**C**	**D**	**Ev**	**E**	Days	
Month	Expected Days per Month at Each PAL Value						Analyzed	
July								
August								
September								
October								

Region 5 Project Activity Level (PAL) Ev Variance Application/Agreement

Project Name: _____
Contract Number: _____
Contractor Name: _____
Request #__, for period: _____
Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Contractors past/current performance & equipment readiness	
Other site specific mitigation or precaution (i.e. Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	

Proposed Actions:

Description of Mitigation Measures:

Remarks:

Fire Management Officer Concurrence — Date

Line Officer Approval — Date

I have considered the above request and determined the specified mitigation measures or actions must be implemented to continue operations in Project Activity Level Ev. Unless extended, the approval remains in effect for ten (10) calendar days unless cancelled sooner or extended by the Forest Service for an additional ten (10) days. At the sole discretion of the Forest Service, this variance can be modified and/or cancelled at no cost to the government.

Contracting Officer — Date

Contractor Representative — Date

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Appendix B

Agency Checklist and Instructions for Determining Project Activity Level Variances

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Project Name: _____
Contract Number: _____
Purchaser/Contractor Name: _____
Request #__, for period: _____
Units/Subdivisions Affected: _____

Location of operation:	
Slope Aspect Elevation	
Fuels on site	
Fuels in surrounding area	
10 day Forecast	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Operating Season	
Frequency of recent contract fires in area	
Type of operation	

Purchaser/Contractors past performance	
Other site specific mitigation or precaution (i.e. Purchaser/Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	
Remarks:	

I have considered the above items and have determined the following actions must be implemented to continue operations in Project Activity Levels _____ through EV

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-
-
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☐ Fire Management Consulted _____
Name

☐ Line Officer Concurred_____
Name

Contracting Officer or Delegated Representative _____

Date:_____

Purchaser/Contractor Rep._____ Date_____

Instructions for Determining Variances for Continued Operations Within Specific Units and With a Specific Time Frame

1. Variances are in addition to the stated requirements for the Predicted Activity Level.

2. The Line Officer in consultation with the Forest Fire Management Officer or his/her representative will evaluate the items in the above check list as they relate to the existing and planned activities, add any mitigation measures as needed and the Line Officer will advise the Contracting Officer to execute the variance. The name of the Fire Management Representative and the Line Officer involved must be filled in but a signature is not required.

3. The delegated authority can be at the FSR/COR level since they would usually have more knowledge of the ground and access to the District Ranger.

4. The project area should be evaluated for differences in potential fire activity if a fire starts. This could necessitate the use of multiple forms. Examples of this would be units on a north slope near riparian areas vs. those on south slopes that would be dryer and expected to have more severe fire conditions or there is a significant difference from the predicted PAL and the actual conditions.

5. The Purchaser/Contractor or their representative should be consulted when determining types of variances that are being considered. They might be able to come up with other options.

6. Examples of written variances are:

    A. Local assessment determines that existing precautions are adequate
    B. Use of specialized detection equipment such as an infrared detection device for locating heat sources is required
    C. Provide additional fire suppression resources (i.e. crews, equipment etc.) to achieve shorter response time.

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