Attachment D10

PCWA Alternative Condition No. 44 – Revised Fire Prevention and Suppression Plan

Placer County Water Agency
Middle Fork American River Project
(FERC Project No. 2079)

REVISED
FIRE PREVENTION AND SUPPRESSION PLAN

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Acronyms and Abbreviations

CAL FIRE	California Department of Forestry and Fire Protection
CI	Chief Inspector
Commission	Federal Energy Regulatory Commission
CPRC	California Public Resources Code
ENF	Eldorado National Forest
FERC	Federal Energy Regulatory Commission
Forest Service	United States Department of Agriculture-Forest Service
FPA	Federal Power Act
FPSP	Fire Prevention and Suppression Plan
FSM	Forest Service Manual
GPM	gallons per minute
ILP	Integrated Licensing Process
MFP	Middle Fork American River Project
PAL	Project Activity Levels
PCWA	Placer County Water Agency
Project	Middle Fork American River Project
PSI	pounds per square inch
SD	Supporting Document
TNF	Tahoe National Forest
USDA-FS	United States Department of Agriculture-Forest Service

1.0 INTRODUCTION

Placer County Water Agency (PCWA) owns and operates the Middle Fork American River Project (MFP or Project), a system consisting of two major storage reservoirs, five smaller regulating reservoirs and diversion pools, and five powerhouses that began operation in 1967 (FPSP Map 1). The MFP was originally licensed in 1963 by the Federal Power Commission, predecessor of the current Federal Energy Regulatory Commission (FERC or Commission) (FERC Project No. 2079). The original license expires on March 13, 2013, and PCWA is relicensing the MFP using FERC's Integrated Licensing Process (ILP).

As part of the relicensing effort, PCWA developed this Fire Prevention and Suppression Plan (FPSP). This FPSP has been developed to satisfy the requirements under Section 10(c) of the Federal Power Act (FPA), which authorizes the FERC to establish regulations requiring owners of hydro projects under its jurisdiction to operate and properly maintain such projects for the protection of life, health, and property.

This FPSP is one of a number of management plans that provide specific fire prevention and suppression measures for various operations, maintenance, and construction activities associated with the Project. Implementation of this FPSP will be coordinated with other MFP management plans that contain activity-specific fire prevention and suppression measures including the:

- Sediment Management Plan, which is available in Supporting Document A of PCWA's Final Application for New License (PCWA 2011a; SD A);
- Recreation Plan (PCWA 2011b), and
- Revised Transportation System Management Plan (PCWA 2011b).

1.1 PLAN ORGANIZATION

The FPSP is organized into the following sections:

Section 2.0 Plan Objective: This section defines the purpose of the FPSP.

Section 3.0 Responsibilities: This section identifies PCWA and United States Department of Agriculture-Forest Service (USDA-FS or Forest Service) responsibilities under the FPSP.

Section 4.0 Project Activity Levels: This section describes the USDA-FS Project Activity Levels and associated work restrictions and fire precautions that must be observed.

Section 5.0 Fire Prevention Measures: This section identifies fire prevention measures to be implemented during Project operation, routine maintenance, and construction activities.

Section 6.0 Fire Suppression Measures: This section identifies fire suppression measures including suppression responsibility and fire equipment requirements.

Section 7.0 Fire Response Procedures and Emergency Coordination: This section defines procedures and actions to be taken in the event of a wildland or structural fire.

Section 8.0 Agency Consultation: This section outlines resource agency consultation that would be required over the term of the new license.

Section 9.0 Literature Cited: This section provides a list of documents or other resources that were referenced in the development of this FPSP.

2.0 PLAN OBJECTIVE

The objective of this FPSP is to outline the responsibility of PCWA and its contractor(s) for fire prevention and suppression activities; set up reporting and attack procedures in the event of a fire in the vicinity of the MFP; and ensure that fire prevention and suppression techniques are carried out in accordance with federal, state, and local regulations including, the Forest Service Manual (FSM) 5100 (USDA-FS 2004a), FERC License Articles, and the California Public Resources Code (CPRC) (State of California 2009). Measures and procedures identified in this FPSP apply to all lands and facilities within the FERC Project boundary.

3.0 RESPONSIBILITIES

Specific responsibilities under this FPSP are divided between PCWA, USDA-FS, CAL FIRE (California Department of Forestry and Fire Protection), and other emergency services, as described below.

3.1 PLACER COUNTY WATER AGENCY

PCWA is responsible for the following activities:

- Conduct Project activities in a manner that will reduce or eliminate potential fire dangers and that complies with this FPSP and all applicable rules, regulations, laws, and ordinances;
- Provide all necessary firefighting equipment to their respective employees on the Project site and for operating all equipment under the requirements of this FPSP;
- Take all reasonable and practicable action to prevent and suppress fires resulting from PCWA and contractor operations within the FERC Project boundary (both independently and in cooperation with the USDA-FS);

- Provide initial response support (i.e., initiating and implementing all fire control activities) in the event of a fire in the vicinity of the Project and supervising fire suppression activities until relieved by professional fire suppression crews[1];

- Generally, the most fire knowledgeable person onsite shall assume responsibility for the initial attack on the fire. This person shall direct fire suppression activities until the fire is controlled or a USDA-FS person arrives and assumes responsibility for fire suppression activities;

- Immediately report wildfires by calling 911, followed by notification to PCWA's Foresthill Office Dispatcher and/or the appropriate USDA-FS Emergency Command Center Dispatcher in accordance with the Fire Suppression Action Plan (Attachment A);

- Take corrective action when observing or having been notified that fire protection measures have not been properly installed or maintained;

- Stop work or reduce construction activities that pose a fire hazard until appropriate measures have been implemented;

- Direct personnel to increase the level of fire monitoring, install additional fire prevention equipment, or stop work, as necessary, if extreme fire danger is present;

- Coordinate with federal and state fire management personnel during periods of high or severe fire conditions to ensure that permit stipulations are being met and appropriate preventive measures are in place during all construction-related activities; and

- Restrict activities on federal lands during conditions of high fire danger as directed by the USDA-FS or other local agencies.

PCWA will also designate a Fire Guard that will be responsible for fire prevention and control in the Project area, and for compliance with this FPSP. The Fire Guard is responsible for the following:

- Direct fire-related activities for the Project, including fire suppression, until relieved by qualified fire suppression personnel;

- Implement the requirements of this FPSP;

[1]See Attachment A – Fire Suppression Action Plan, which further details PCWA personnel's responsibilities in the event of a fire.

- Procure all fire-related permits from the USDA-FS District Ranger's Office having jurisdiction over the Project area (i.e., Georgetown Ranger District in Eldorado National Forest (ENF) and American River Ranger District in Tahoe National Forest (TNF);

- Enforce any permit and Project regulations concerning burning; blasting and welding; spark arresters; and fire suppression tool requirements;

- Conduct routine patrols and monitor Project activities to assure compliance with this FPSP and with full authority to "shut down" any activity in violation of this FPSP's requirements;

- Keep the USDA-FS currently informed of progress and/or problems, and make periodic inspections of the Project area with a designated agent of the USDA-FS and correct any problems noted;

- Inspect all incoming equipment and vehicles for compliance with fire regulations, as identified in this FPSP;

- Establish procedures to assure that everyone on the job site is cognizant of the fire response and emergency coordination procedures in the event of a fire. The procedures should be continually updated to assure that specific assignments, contacts, and phone numbers are current; and

- Immediately report a fire by calling 911, followed by notification to PCWA's Foresthill Office Dispatcher and/or the appropriate USDA-FS Emergency Command Center Dispatcher. An emergency response notification list for both PCWA and the USDA-FS are included as Attachments B and C.

3.2 PCWA CONTRACTORS

PCWA contractors (prior to commencing any MFP-related construction project) will be required to furnish information relating to key personnel, tools, and equipment available for the purposes of fighting wildfires within and adjacent to the Project area (Attachment D). In addition, the construction contractor may be required to develop a project-specific fire control plan that details fire control procedures, roles and responsibilities, and staffing. If required, a copy of the plan will be provided to the USDA-FS. At a minimum, the contractor's project-specific fire control plan will include all measures, requirements, and procedures contained in this FPSP. The contractor will also designate a Chief Inspector responsible for implementation of the fire control plan and designate responsibilities to the project team members as described below.

3.2.1 Chief Inspector

The construction contractor will identify a Chief Inspector (CI) that will be responsible for implementing, monitoring, and reporting of various construction components, including those associated with fire prevention and suppression and monitoring of areas where

activities may present fire safety hazards. The CI will notify the PCWA Fire Guard in writing within 24 hours of any observed fire hazards or situations where use of appropriate fire prevention and/or suppression measures is ineffective or deficient.

The CI will be responsible for ensuring that construction activities are conducted in a safe manner and in compliance with this FPSP. Fire-related conditions and incidents that did or could affect the safety of personnel, property, and/or environmental resources will be identified and addressed by the CI and communicated with construction and environmental inspection personnel on a daily basis.

Additional duties of the CI include:

- Coordinate with PCWA's Fire Guard to implement the safeguards and procedures outlined in this FPSP;
- Conduct daily inspections of flammable fuels and explosives storage and handling areas;
- Provide the crew's written blasting schedule to all monitors, inspectors, and the PCWA Fire Guard; and
- Stay onsite for two hours after power-driven machinery, welding, or blasting activity shutdown to conduct a visual survey of the operational area unless modified by project-specific permits or plans or the Project Activity Level. If a fire results from these activities, the CI will attempt to put out the fire, or follow the procedures outlined in Section 7.0 for contacting assistance.

3.2.2 Project Team Members

Project team members include all contractor personnel performing construction activities or related tasks for the MFP. Team members' fire safety responsibilities include, but are not limited to, the following:

- Act in a safe and responsible manner that is consistent with PCWA's FPSP;
- Recognize and prevent fire safety hazards in the field;
- Know the locations of fire equipment;
- Report any observed fire dangers, incidents, or unsafe acts to the construction team leader; and
- Check with their construction lead or CI if uncertain of any fire safety procedures.

3.3 UNITED STATES DEPARTMENT OF AGRICULTURE-FOREST SERVICE

The following describes the responsibilities of the USDA-FS regarding fire prevention and suppression activities associated with MFP FPSP.

3.3.1 Eldorado National Forest, District Ranger – Georgetown Ranger District

- The District Ranger is responsible for all fire activities in the Georgetown Ranger District;
- The District Ranger, or designated representative, is expected to assist in the preparation of this FPSP and will approve the FPSP in its final form;
- PCWA expects that the District Ranger will designate an authorized District Ranger representative to represent him/her on the portion of the ENF associated with the MFP; and
- It is anticipated that the District Ranger will inspect the Project for compliance with fire requirements and will notify PCWA, through the authorized District Ranger representative, in the event of non-compliance.

3.3.2 Tahoe National Forest, District Ranger – American River Ranger District

- The District Ranger is responsible for all fire activities in the American River Ranger District;
- The District Ranger, or designated representative, is expected to assist in the preparation of this FPSP and will approve the FPSP in its final form;
- PCWA expects that the District Ranger will designate an authorized District Ranger representative to represent him/her on the portion of the TNF associated with the MFP; and
- It is anticipated that the District Ranger will inspect the Project for compliance with fire requirements and will notify PCWA, through the authorized District Ranger representative, in the event of non-compliance.

3.3.3 Authorized District Ranger Representative

The authorized District Ranger representative is responsible for the following:

- All fire activities on lands associated with the MFP;
- Supervise and train all Forest Service prevention and suppression forces on the Project area;
- Review the FPSP with the contractor(s) and review with them the equipment and manpower action to be taken when a fire occurs; and
- Inspect the Project for compliance with fire requirements and notify PCWA's representative in the event of non-compliance.

4.0 PROJECT ACTIVITY LEVELS

PCWA is subject to USDA-FS fire restrictions. In addition to general fire restrictions, the USDA-FS has established work restrictions and fire precautions that PCWA and its contractor(s) must observe at each Project Activity Level identified in FPSP Table 1. The restrictions are cumulative at each level.

PCWA and/or its contractor(s) shall conform to the limitations or requirements of the Project Activity Level they obtain from the USDA-FS prior to starting work each day. If practicable, USDA-FS will determine the following day's Project Activity Level by 6:00 PM local time the day before. PCWA or its contractor(s) can obtain the following days Project Activity Level, after 6:00 PM, by calling (530) 644-6048 for the Georgetown Ranger District or by calling (530) 367-2224 for the American River Ranger District. If predictions made after 6:00 PM are significantly different than originally estimated, the USDA-FS will inform PCWA and/or its contractor(s) when changes in restrictions or industrial precautions are indicated.

The USDA-FS, at its sole discretion, may change the predicted Project Activity Level if the current fire suppression situation, weather, and vegetation conditions warrant additional restriction of activities.

USDA-FS may also change the Project Activity Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Project Activity Levels and/or requirements when such changes are necessary for the protection of the National Forest. When sent to PCWA and/or its contractor(s), the revised Project Activity Levels will supersede the levels included in FPSP Table 1.

5.0 FIRE PREVENTION MEASURES

The risk of fire from normal Project operations is minimal. The primary causes of fire within the Project boundary result from unauthorized entry by individuals utilizing Project lands for recreational purposes and from fires started outside the Project boundary.

During Project maintenance activities, the primary risk of fire is from smoking, use of flammable liquids, operation of vehicles, and pipeline maintenance activities that require welding. During maintenance activities, PCWA or its contractor(s) shall equip personnel with basic firefighting equipment including fire extinguishers and shovels as described in Section 6.0. Maintenance crews shall also carry Emergency Notification and Key Personnel Lists as included in Attachments B and C.

Construction activities with a risk of fire include: welding, blasting, smoking, refueling activities, operating vehicles and other equipment off roadways, and the use of flammable liquids.

PCWA shall independently do all within its power to prevent and suppress fire within the Project area and shall require its employees, agents, contractors, subcontractors, and employees of contractors and subcontractors to do likewise. The following prevention

measures shall be adhered to during Project operation, routine maintenance, and construction activities.

5.1 BURNING

No burning will be permitted during the fire season which is normally from about June 1 to October 31, but which may be longer (or shorter) depending upon the weather. During the balance of the year, a specific burning permit from the USDA-FS will be required.

5.2 BLASTING AND WELDING

The District Ranger, or designated representative, will issue permits, as required, for blasting and/or welding activities.

5.3 SMOKING

Signs stating smoking and fire rules will be posted on Project bulletin boards during the fire season. Supervisory personnel will oversee and require compliance with these rules. Smoking will be prohibited during the fire season (normally June 1 to October 31) except in designated smoking areas. Under no circumstances will smoking be permitted while operating equipment, or while walking to and from the Project area. “No Smoking” signs will also be posted at refueling areas, and areas where flammable liquids or materials are used, stored, or discarded.

5.4 SPARK ARRESTERS AND MUFFLERS

During operation, maintenance, and construction activities, all PCWA and contractor equipment operating with an internal combustion engine shall be equipped with federally approved spark arresters. Spark arresters are not required on trucks, buses, and passenger vehicles (excluding motorcycles) that are equipped with an unaltered muffler or on diesel engines equipped with a turbocharger. Heavy trucks or other vehicles used for heavy hauling will be equipped with a factory designed muffler or equivalent. A District Ranger, or designated representative, will have full authority to inspect spark arresters on Project equipment prior to use on the Project on respective federal lands.

5.5 POWER SAWS AND OTHER PORTABLE POWER TOOLS

Spark arresters that meet CPRC, Sections 4442 and 4443, and USDA-FS regulations, are required on all gasoline power saws and other portable power tools. An approved fire extinguisher and size 0 round point shovel (or larger) will be kept with each power saw and other portable power tools while operating. Fire extinguishers must be in accordance with CPRC, Section 4431, and California Administrative Code, Title 14, Section 1234, and appear on approved list as established by State Statute. Gas and oil will be carried only in approved safety canisters.

5.6 FIRE EXTINGUISHERS

Each fire extinguisher shall be inspected annually for serviceability by a qualified service and testing company. The inspection or certification tag shall not be removed or the seal broken. Missing certification tags or broken seals shall be cause to treat the extinguisher as an expended vessel. Expended fire extinguishers shall be replaced by a fully charged, like vessel prior to operation of the equipment that it was removed from. Extinguishers will be mounted so that immediate location and unobstructed access is possible.

5.7 REFUELING AND FUEL STORAGE AREAS

Mobile equipment will be fueled on paved or other non-flammable surface. No vehicle will carry in excess of 660 gallons of fuel to a mobile fueling location without making arrangements with the USDA-FS to establish the terms and conditions for handling volumes of fuel in excess of this amount.

In no case will motorized equipment, including worker transportation vehicles, be driven or parked outside of the designated and approved workspaces. Equipment service areas; parking areas; temporary use areas; and gas, diesel, and oil drum storage areas will be cleared of all flammable material for a radius distance of at least 50 feet. Small stationary engine sites shall be cleared of flammable material for a radius distance of at least 15 feet.

5.8 OIL FILTERS, CARTRIDGES, AND OILY RAGS

Used and discarded oil, oil filters, oily rags, or other potentially flammable wastes will be disposed of in an approved sanitary landfill. Only properly labeled and maintained containers will be used to store or transport flammable liquids. Glass jugs or bottles shall not be used as containers of gas, oil, or water.

6.0 FIRE SUPPRESSION MEASURES

PCWA will take all steps reasonably within its power to suppress fires within the FERC Project boundary. The following section includes information related to fire suppression responsibility and fire equipment requirements.

6.1 FIRE SUPPRESSION RESPONSIBILITIES

- In the event of a fire within the Project area, the Fire Guard, or their designated representative, will implement the Fire Suppression Action Plan (Attachment A).

- In the event a fire occurs outside of the Project boundary that may threaten PCWA facilities or personnel, the USDA-FS will contact PCWA emergency personnel identified on the Emergency Notification and Key Personnel List (Attachment B). This list will be reviewed annually as specified in Section 8.0 of this plan and updated as appropriate to ensure that the information contained on the list is current.

- The following documents are included in this FPSP (refer to Attachments A through D). They are an integral part of the FPSP. These documents provide information for initiating fire suppression activities, reporting procedures, key personnel list, and available forces and equipment list:
    - PCWA's Fire Suppression Action Plan;
    - PCWA's Emergency Notification and Key Personnel List;
    - USDA-FS Emergency Notification and Key Personnel List; and
    - PCWA and/or its contractor(s) Plan Regarding Personnel, Equipment, and Organization.
- The above documents contain titles, addresses, and phone numbers and will be kept current. An annual review and update of the documents should be made, as needed.
- Copies of the Fire Suppression Action Plan and directories will be distributed to PCWA, contractor(s), and USDA-FS involved personnel and they will be posted in selected locations throughout the Project area.
- All involved PCWA personnel and/or its contractor(s) personnel will be informed about the Fire Suppression Action Plan and cautioned about the fire hazards immediately upon reporting to the Project site.
- Emergency measures will be coordinated with the USDA-FS for weekends, holidays, or outside working hours.

6.2 FIRE SUPPRESSION TOOL CACHE(S) REQUIREMENTS

A designated fire suppression tool cache(s) will be provided and maintained by PCWA or its contractor(s) for emergency fire control use, at each location when five or more people are working. Each cache shall be in a toolbox painted red and marked "Fire Tools". All tools shall be sharp and ready for use.

The fire cache(s) will be sealed by a strip seal and maybe inspected regularly by the Fire Guard, or designated representative. Tool caches will be in place prior to the start of work. When fewer than five employees are working on a Project site, sufficient shovels and axes or Pulaski's must be available to outfit all personnel.

Each fire tool cache shall contain, as a minimum requirement, the following tools:

- One 5-gallon backpack pump, filled with water;
- Two axes, double blade (Pulaski tool may be substituted for axes);
- Two McLeod fire tools; and

- Four long-handle round-point shovels, size 0.

6.3 FIRE EQUIPMENT REQUIREMENTS

At a minimum, fire equipment will comply with California State Public Resources Codes. Project equipment will have the complement of tools, as specified below:

- Each highway truck, personnel vehicle, tractor, and other earth moving equipment will have one serviceable shovel, axe, and a fully charged fire extinguisher, UL rated 4B:C or more;

- Each fuel truck and/or lube type vehicle will have one 20-pound B:C dry chemical fire extinguisher for each fuel dispensing device, but shall not need more than two 20-pound B:C dry chemical fire extinguishers per vehicle regardless of the number of dispensing devices;

- Each straight lube type vehicle will have at least one of the above type extinguishers;

- Each welding unit, truck and mobile, will have one serviceable shovel and a 5-gallon backpack pump, full of water, in good operating condition and one 20-pound B: C dry chemical fire extinguisher; and

- All fire suppression tools and equipment required shall be in good condition and shall meet the following specifications:

    - Shovels shall be size 0 or larger and be not less than 46 inches in length.

    - Axes shall have 2.5 pounds or larger heads and be not less than 28 inches in overall length.

6.4 WATER SUPPRESSION REQUIREMENTS

A determination as to the need for a Fire Water Tank for specific project activities will be made by PCWA or its contractor(s) in consultation with the USDA-FS. If deemed necessary, the tank shall contain at least 300 gallons of water available for fire suppression. A water sprinkling tank truck will meet this requirement if provision is made to ensure that the minimum of 300 gallons is available for fire suppression at all times. Ample power and hitch shall be readily available for promptly and safely moving the tank over roads serving the Project area.

Tank truck or trailer shall be equipped with the following:

- A pump, which at sea level, can deliver 23 gallons per minute (GPM) at 175 pounds per square inch (PSI), measured at the pump outlet. Pumps shall be tested on the Project area using a 5/16-inch orifice in the “Forester One Inch In-Line Gauge” test kit. The pump shall meet or exceed the pressure value identified below for nearest temperature and elevation;

Temp °F	1,000 ft Elevation		2,000 ft Elevation		3,000 ft Elevation		4,000 ft Elevation		5,000 ft Elevation		6,000 ft Elevation	
	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM
55	174	23	169	23	165	22	161	22	157	22	153	22
70	171	23	166	22	162	22	158	22	154	22	150	21
85	168	23	163	22	159	22	155	22	151	21	147	21
100	164	23	159	22	155	22	152	22	148	21	144	21

- The pump outlet shall be equipped with 1.5-inch National Standard fire hose thread. A bypass, or pressure relief valve, shall be provided for other than centrifugal pump;

- Three-hundred feet of 0.75-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;

- A shut-off nozzle with a combination 3/16-inch straight stream orifice and fog spray rated to 6 to 20 gallons per minute; and

- Sufficient fuel to run pump for at least two hours and necessary service accessories to facilitate efficient operation of the pump.

7.0 FIRE RESPONSE PROCEDURES AND EMERGENCY COORDINATION

Fire response procedures and emergency coordination for wildland and structural fires are described below.

7.1 WILDLAND FIRE SUPPRESSION

In the event of a wildland fire started by PCWA or its contractor(s), if personnel are safe, they should attempt to contain the fire with onsite personnel, equipment, and fire tools. As described in the Fire Suppression Action Plan (Attachment A), personnel should immediately call 911, followed by a call to PCWA's Foresthill Office Dispatcher. Upon notification, PCWA will contact the appropriate USDA-FS Emergency Command Center Dispatcher. The reporting party should be prepared to provide the fire location, action taken, and current status.

Once qualified fire suppression personnel arrive onsite, they will assume command for wildland fire suppression activities and PCWA employees or contractor(s) will assist only as requested. A qualified Fire Investigation will commence as soon as possible to determine the cause of the fire.

7.2 STRUCTURAL SUPPRESSION

In the event of a structural fire started by PCWA or its contractor(s), if personnel are safe, they should attempt to contain the fire with on-site personnel, equipment, and fire tools. As described in the Fire Suppression Action Plan (Attachment A), personnel should immediately call 911, followed by a call to PCWA's Foresthill Office Dispatcher. Upon notification, PCWA will contact the appropriate USDA-FS Emergency Command Center Dispatcher. The reporting party should be prepared to provide the fire location, action taken, and current status.

8.0 AGENCY CONSULTATION

PCWA will hold an annual meeting with the USDA-FS to discuss current fire suppression and preparedness practices. PCWA will organize the annual meeting outside of the typical fire season. In addition, PCWA will consult with the USDA-FS annually, as needed, to determine if modification of the FPSP is appropriate. Should revisions be required, and once agreement between PCWA and the USDA-FS has been reached, PCWA will provide a draft version to USDA-FS for review, comment, and approval. Upon completion of the review and approval process, PCWA will file the Revised FPSP with FERC for approval, along with consultation documentation and any other pertinent information that supports the plan revisions. The Revised Fire Prevention and Suppression Plan will be in effect upon approval by FERC.

9.0 LITERATURE CITED

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___ 2011. USDA-FS. Preliminary Section 4(e) Terms and Conditions. Filed with FERC on August 5, 2011.

TABLES

FPSP Table 1. USDA-FS Project Activity Levels (PAL).

Level	Project Activity Requirements
A	Minimum required by Section 4.0 and 5.0 1. PAL levels are cumulative, Ev level would include all preceding PAL requirements.
B	1. A fire patrolperson is required for mechanical operations from cessation of operations until two hours after operations cease or sunset, whichever occurs first. 2. Tank truck or trailer shall be on or adjacent to each active landing. 3. When hot saw technology is being used, the tank truck or trailer (B2 above) may serve dual purpose as active landing tank truck provided it shall be kept readily available for use as follows: a. Within one quarter mile of the operating hot saw technology; and b. Within 10 minutes of the active landing; and c. Effective communications exist between hot saw technology and active landing. Otherwise, there shall be a tank truck or trailer at both the active landing and within one quarter mile of the operating hot saw technology. 4. (Additional restrictions specified by the forest.)
C	1. The following operations are prohibited from 1:00 PM until 8:00 PM local time: a. Blasting 2. Operations using hot saw technology are prohibited between 1:00 PM and sunset local time. Hot saw technology operations may continue if purchaser provides a portable fire suppression system capable of extinguishing a 20-foot by 20-foot wildland fire within five minutes of discovery. The following equipment will meet the requirements above: a. Compressed Air Foam System with minimum requirements of 20 gallons stored energy, 100 feet of 1-inch hose and adjustable 1-inch nozzle, minimum discharge range of 60 feet and one spare air cylinder; or b. All terrain tank truck or equivalent capable of traveling throughout the cutting unit, containing not less than 300 gallons of water and complies with all tank truck requirements of Section 5.4 All terrain tank truck provided: 1. Tank truck or equivalent shall be kept readily available to extinguish a fire within five minutes of discovery of the operating hot saw technology; 2. Tank truck or equivalent shall be no further than 10 minutes travel time to the active landing; 3. A 4-A:80-B:C extinguisher is maintained at the landing fire tool box; and 4. Effective communications exist between the hot saw technology, active landing and all terrain tank truck or equivalent. Otherwise there shall be a tank truck at the active landing and an all terrain tank truck or equivalent with the hot saw technology. 3. (Additional restrictions specified by the forest.)

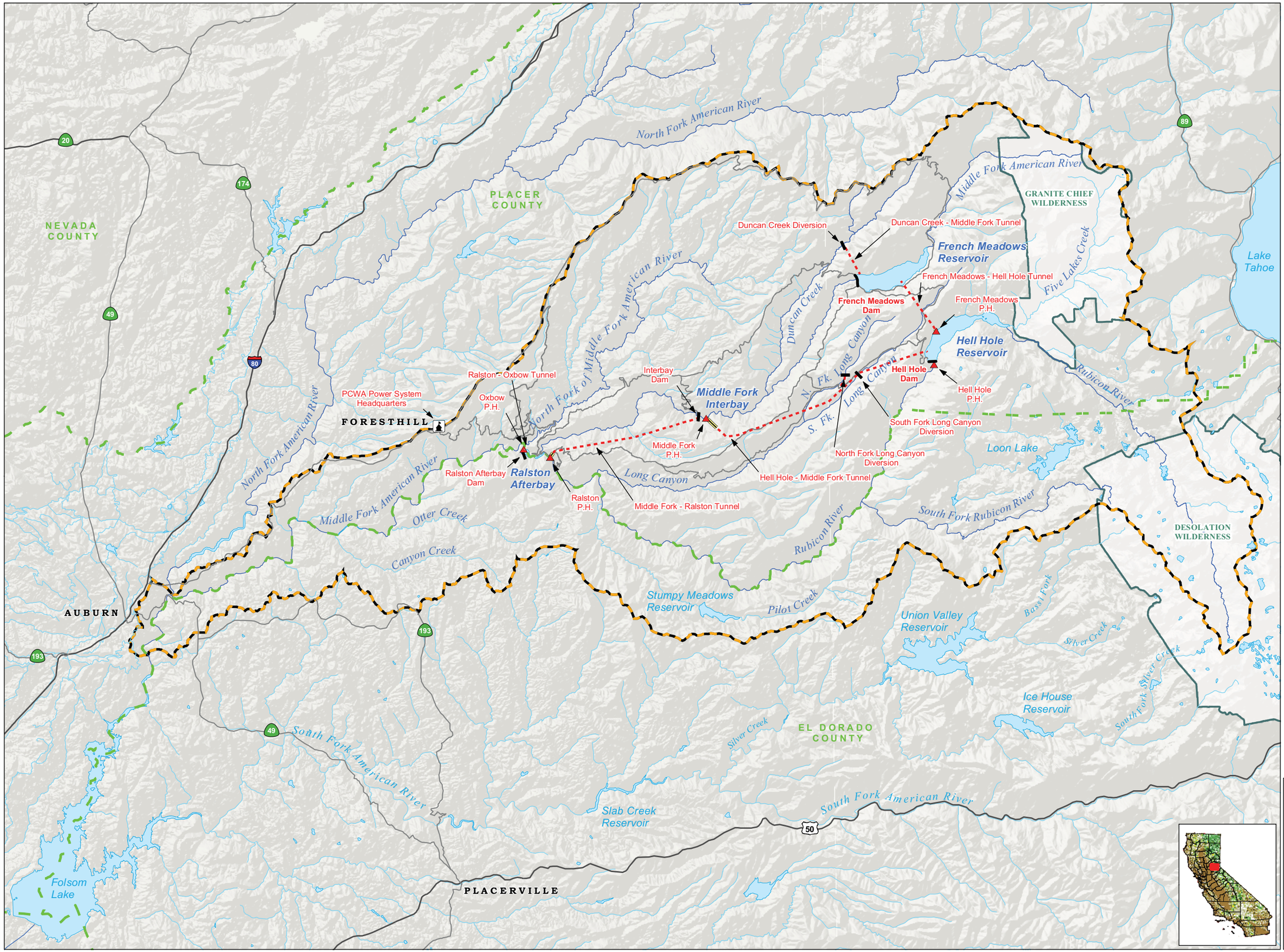
FPSP Table 1. USDA-FS Project Activity Levels (PAL) (continued).

Level	Project Activity Requirements
D	1. The following restrictions apply: a. No blasting after 10:00 AM b. Welding or cutting of metal only by special permit c. No burning without a permit 2. The following activities may not operate after 1:00 PM local time unless fire patrolperson(s) walks all areas operated that day once per hour until sunset local time and has the capability of notifying the designated Forest Service Dispatch Center within 15 minutes of discovery of a fire: a. Track-laying equipment b. Chipping outside of landings and roadbeds c. Equipment using hot saw Technology d. Chainsaw operations outside of landings and roadbeds e. Tree felling operations f. Ripping roads and landings g. Mastication h. Cable-yarding employing motorized carriages 3. (Additional restrictions specified by the forest.)
Ev	1. The following operations are prohibited: a. Blasting b. Welding or cutting metal c. Burning 2. Following activities may operate when fire patrolperson walks from 9:00 AM until local sunset all areas once per hour that were mechanically operated that day. a. Activities that may operate all day: i. Hauling and loading of logs decked at approved landings ii. Hauling and loading of chips piled at approved landings iii. Equipment servicing at approved sites iv. Roads: Dust abatement or rock aggregate installation (does not include pit or quarry development) v. Chainsaw or stroke delimber operation associated with loading at approved landing sites b. All other Operations are permitted until 1:00 PM local time subject to the following: i. When hot saw technology is being used a tractor or other equipment with blade capable of constructing fire line, shall be on standby and immediately available. Tractor will have effective communications with hot saw technology and be within one quarter mile of hot saw technology to quickly reach and effectively attack a fire start. 3. (Additional restrictions specified by the forest.)

FPSP Table 1. USDA-FS Project Activity Levels (PAL) (continued).

Level	Project Activity Requirements
E	The following activities may operate subject to B1 and B2. 1. Hauling and loading of logs decked at approved landings 2. Hauling and loading of chips piled at approved landings 3. Equipment at approved sites may be serviced 4. Roads: Dust abatement or rock aggregate installation (does not include pit development) 5. Chainsaw operation associated with loading at approved landings

MAPS



Project Facilities*

- Powerhouse
- Dam
- Tunnel
- Penstock

* All MFP facilities labeled in red.

Transportation

- Major Road
- Minor Road

Hydrography

- Watercourse
- Water Body

Designated Boundary

- County Boundary
- Wilderness Area
- Middle Fork American River Watershed**

**Modified from Calwater Ver. 2.2 to represent drainage above high-water mark of Folsom Lake

PCWA

Placer County Water Agency
Middle Fork American River Project

FPSP Map 1

Middle Fork Project and Vicinity

0 0.5 1 2 3 4 5 Miles

Projection: CA State Plane, Zone 2
Datum: NAD 83

Date: 8/16/10

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ATTACHMENT A

Placer County Water Agency – Fire Suppression Action Plan

In the event of a fire Placer County Water Agency (PCWA) and/or its contractor(s) will:

1. Attempt to contain the fire with onsite personnel, equipment, and fire tools.

   Generally, the most fire knowledgeable person onsite shall assume responsibility for the initial attack on the fire. This person shall direct fire suppression activities until the fire is controlled or qualified fire suppression personnel arrives and assumes responsibility for fire suppression activities.

   If the initial attack fails and the fire becomes an escaped wildfire, Project personnel shall only attempt fire suppression based upon their knowledge, training, and ability to do so.

   If possible, protect the point of origin of the fire.

2. Report the fire by calling 911.

3. Notify the PCWA Foresthill Office Dispatcher by the most expeditious means available:

   Telephone: (530) 367-2291 or (530) 885-6917
   Cell: (530) 277-1562
   Radio: KGU 917, 47.76 MHz

   *Notify the appropriate USDA-FS Emergency Command Center Dispatcher if the PCWA Dispatcher cannot be reached.

   Provide the Dispatcher with information as to the location, size of the fire, if help is required, and what action has been taken. Keep Dispatcher informed of changes in fire conditions and when qualified fire suppression personnel arrive and assume responsibility for fire suppression activities.

4. The PCWA Foresthill Office Dispatcher will take the following actions, immediately upon being informed of a fire:

   - Notify the USDA-FS TNF Emergency Command Center Dispatcher of the fire by telephone at (530) 477-7237 or the USDA-FS ENF Emergency Command Center Dispatcher of the fire by telephone at (530) 642-5170.

   - Provide as much detailed information as is available and continue coordinating activities between fire suppression forces and the USDA-FS Dispatcher until relieved.

   - Notify PCWA management or the Duty Supervisor of the fire by the most expeditious means available.

ATTACHMENT B

Placer County Water Agency – Emergency Notification and Key Personnel List

EMERGENCY CONTACT NUMBERS (24 HOURS):

Contact	Radio ID#	Phone	Cell	Location
PCWA Dispatcher	KGU 917, 47.76 MHz	(530) 367-2291 (530) 885-6917	(530) 277-1562	Foresthill
Jay L'Estrange	90	(530) 367-6706	(530) 320-3724	Foresthill
Marc Wyatt	73	(530) 367-6704	(530) 906-7427	Foresthill

KEY PERSONNEL CONTACT LIST, PCWA

Contact	Radio ID#	Phone	Cell	Location
Jay L'Estrange	90	(530) 367-6706	(530) 320-3724	Foresthill
Marc Wyatt	73	(530) 367-6704	(530) 906-7427	Foresthill
Jay Correa	92	(530) 367-6701	(530) 863-8900	Foresthill
Jon Mattson	91	(530) 367-6702	(530) 401-3527	Foresthill

ATTACHMENT C

United States Department of Agriculture-Forest Service (USDA-FS) – Emergency Notification and Key Personnel List

EMERGENCY TELEPHONE NUMBERS (24 HOURS):

Contact	Telephone
USDA-FS Emergency Command Center Dispatcher (Grass Valley – Placer County)	(530) 477-7237 or 911
USDA-FS/CAL FIRE Emergency Command Center Dispatcher (Camino – El Dorado County)	(530) 642-5170 or 911
California Highway Patrol	911
Placer County Sheriff's Office	911
El Dorado County Sheriff's Office	911
Ambulance	911

ELDORADO NATIONAL FOREST – GEORGETOWN RANGER DISTRICT

Contact	Telephone
District Office – Georgetown	(530) 333-4312
District Ranger	(530) 333-5501
USDA-FS Representative	(530) 333-5550
Battalion Chief, Pacific Ranger District (Mike Sandoval)	(530) 647-5431
Georgetown Battalion Captain (Lucas Minton)	(530) 333-5571
Fire Prevention Technician (Tonya Blasingame)	(530) 333-5578

TAHOE NATIONAL FOREST – AMERICAN RIVER RANGER DISTRICT

Contact	Telephone
District Office – Foresthill	(530) 367-2224
District Ranger	(530) 906-2095
USDA-FS Representative (Mo Tebbe)	(530) 367-2224
District Fire Management Officer (Dominic Panno)	(530) 906-4687
District Fire Prevention Officer (Mike Riley)	(530) 367-2224

ATTACHMENT D

Placer County Water Agency – Supplemental Forest Service Provisions

PCWA or its contractor(s) shall, prior to commencing work, furnish the following information to the USDA-FS relating to key personnel, tools, and equipment available for the purpose of fighting wildfires within and adjacent to the Project area:

Key Personnel: (In order of call preference)

Company:		Address:	
Name:		Phone (day):	
Title:		Phone (eve):	

Company:		Address:	
Name:		Phone (day):	
Title:		Phone (eve):	

Company:		Address:	
Name:		Phone (day):	
Title:		Phone (eve):	

Personnel and Equipment:

Classification	Type	Number
Fire Fighters		
Fellers		
Power Saws		
Equipment with Operators		