

Construction Fire Prevention Plan

**Fulton-Fitch Mountain
Reconductoring Project**

Submitted to:
California Public Utilities Commission

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CONSTRUCTION FIRE PREVENTION PLAN

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

Pacific Gas and Electric Company's (PG&E's) Fulton-Fitch Mountain Reconductoring Project (project) involves reinforcing the electric system in Sonoma County by replacing existing conductor (reconductoring) on a 9.8-mile-long section of the Fulton-Hopland 60-kilovolt (kV) Power Line between Fulton Substation and Fitch Mountain Substation. The project includes associated actions necessary to replace the 60-kV conductor, including replacing poles, replacing or transferring 230-kV conductor, and modifying Fitch Mountain Substation.

The project is composed of three primary components, the Southern Segment, Northern Segment, and Fitch Mountain Substation (refer to **Figure 1**). The general scope of work and anticipated construction schedule for each component is provided below in **Table 1**.

Table 1 . Summary of Project Components and Anticipated Schedule

Project Component	General Scope of Work	Anticipated Construction Schedule
Southern Segment	Replace 21 existing tubular steel poles (TSPs), replace 1.8 miles of 60-kV conductor, transfer approximately 1.4 miles of 230-kV conductor, and replace approximately 400 feet of 230 kV conductor.	Tentatively scheduled from mid-September 2019 to June 2020.
Northern Segment	Replace 8.1 miles of poles and 60-kV conductor. Existing wood poles would be replaced with either light duty steel poles (LDSPs) or TSPs.	Complete. Constructed from July 2018 to May 2019.
Fitch Mountain Substation	Modify the substation by replacing facilities and repaving the surface within the existing substation footprint.	In process. Completed by end of 2019.

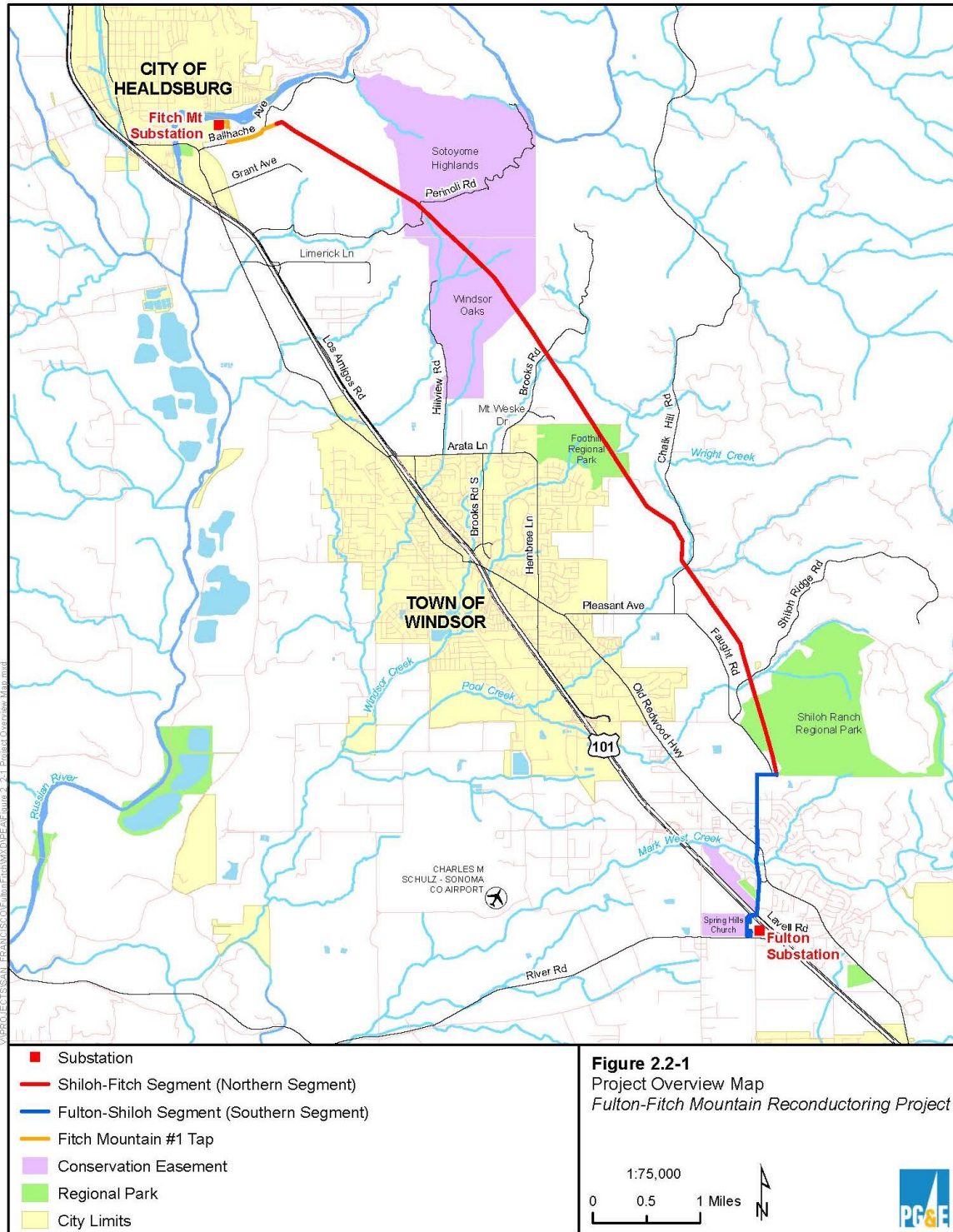
1.2 PURPOSE AND AUTHORITY OF THE PLAN

The California Public Utilities Commission (CPUC) is the lead agency responsible for regulating public utilities in California. PG&E was required to obtain authorization from the CPUC to construct the project. The CPUC reviewed¹ and approved the project with conditions, including requirements to implement certain measures to reduce or avoid potential environmental impacts, such as those associated with wildfires, referred as applicant proposed measures (APMs) and mitigation measures (MMs).

¹ Pursuant to the California Environmental Quality Act the CPUC prepared an Initial Study (IS)/Mitigated Negative Declaration (MND) in 2017 and a Supplemental MND in 2019.

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Figure 1 Project Area and Components



6/27/2018

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The Construction Fire Prevention Plan (CFPP) was developed for the project in coordination with PG&E and the CPUC to address the risk of wildfires and required procedures from the following measures:

- APM HM-3: Smoking and Fire Rules
- APM HM-4: Carry Emergency Fire Suppression Equipment
- MM Hazards-2: Construction Fire Prevention Plan

The CFPP must be implemented during all construction activities involved with the project including those associated with site development; installation, removal, or modification of facilities; and site restoration. PG&E and its contractors are responsible for implementing the CFPP. The CPUC and its contractors are responsible for monitoring and enforcing implementation of the CFPP.

The typical fire season is from roughly April to December, although there may be a risk of fires at any time depending on location and weather conditions. Therefore, the provisions in the CFPP should be considered during all active project periods.

2.0 ROLES, TRAINING, AND RESPONSIBILITIES

The CFPP includes four categories of roles to manage the risk of fires involved with project activities. Each of the following roles includes different levels of responsibility and training that are described in detail below:

- Fire Expert
- Designated Environmental Inspectors
- Crew Foremen and Superintendents
- Construction Workers, including Dedicated Fire Watches and Working Fire Watches

2.1 FIRE EXPERT

2.1.1 Role

The designated Fire Expert is PG&E's Senior Public Safety Specialist. The Fire Expert will be considered the project subject matter expert for compliance with the CFPP.

2.1.2 Training

There are no specific training criteria for the Fire Expert; however, they must have adequate experience and qualifications to perform their duties at the discretion of PG&E.

2.1.3 Responsibilities

The Fire Expert is ultimately responsible for implementation of the CFPP, including the following specific duties:

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- Ensuring all workers are trained adequately for their roles according to the CFPP.
- Ensuring Designated Environmental Inspectors and Construction Foremen and Superintendents are provided with advanced training on the contents of the CFPP and understand all roles and responsibilities.
- Reviewing and signing the **Advanced Training Signature Sheet** (Attachment 4) to document that Designated Environmental Inspectors and Construction Foremen/Superintendents have reviewed the CFPP, understand the requirements, and can act as their designee on the Project.
- Supporting the Designated Environmental Inspectors and Construction Foremen/Superintendents throughout project activities to comply with the CFPP and remain available to answer any questions in a timely manner.
- Ensuring that all crews have the means to comply with the CFPP, such as the ability to obtain, store, and maintain the proper equipment.
- Reviewing the vegetation and flammable material conditions and making any CFPP exemptions on a case-by-case basis (refer to Section 4.2.2)

2.2 DESIGNATED ENVIRONMENTAL INSPECTORS

2.2.1 Role

Environmental Inspectors will be on site periodically to comply with a variety of project requirements, including conducting biological clearances, providing worker trainings, and monitoring project activities. The Fire Expert may designate and train Environmental Inspectors in order to delegate certain CFPP field responsibilities, including providing trainings and monitoring compliance.

2.2.2 Training

The designated Environmental Inspectors will have advanced understanding of the contents of the CFPP and be able to train all Project personnel in the fire prevention requirements of the Project. The designated Environmental Inspector will be considered the Fire Expert's onsite designee and will have frequent contact with the Fire Expert as the subject matter expert for the CFPP. The designated Environmental Inspector shall review and complete an **Advanced Training Signature Sheet** (Attachment 4) to document that he/she has been provided an advanced training on the CFPP. The Fire Expert must also sign this sheet before the designated Environmental Inspector can begin working as their designee on the project.

2.2.3 Responsibilities

The Environmental Inspector is responsible for:

- Coordinating with construction foremen and superintendents to train all staff on the CFPP requirements, including staff who have been away for more than one month.

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- Working closely with all contractors to help them understand how the CFPP should be implemented for different work activities with guidance from the Fire Expert.
- Carrying a current copy of the CFPP at all times while working on the project.
- Maintain a record of all staff who enter the project site and document the date and level of training for each individual.
- Gathering signed copies of training forms, **Wildfire Risk Checklists** (Attachment 2), and **Fire Patrol Logs** (Attachment 4) when onsite.
- Requesting access to and receiving PG&E's daily Fire Potential Index (FPI) notifications and reviewing the FPI for that day prior to beginning work (refer to Section 3).
- Verifying adequate implementation of the CFPP when onsite.

2.3 CREW FOREMEN AND SUPERINTENDENTS

2.3.1 Role

Crew foremen and superintendents are the field supervisors who manage the daily construction activities and construction workforce.

2.3.2 Training

The crew foreman and superintendent are expected to have advanced understanding of the contents of the CFPP and be able to train their staff in the fire prevention requirements of the Project. The foreman and superintendent are expected to thoroughly review the CFPP, keep a copy of the CFPP with them while working on the Project, and have direct and frequent contact with the designated Environmental Inspector and Fire Expert to ensure they understand its contents as it applies to current and projected work activities. The crew foreman and superintendent shall review and complete an **Advanced Training Signature Sheet** (Attachment 4) to document that they have advanced understanding of this Plan; the Fire Expert must also sign this sheet before the crew foreman or superintendent can begin working on the Project.

2.3.3 Responsibilities

The crew foremen or superintendents (one per crew per day) are responsible for:

- Requesting access to and receiving PG&E's daily FPI summary and reviewing the FPI for that day prior to beginning work (refer to Section 3).
- Completing a daily tailboard to discuss any of the work activity procedures and/or restrictions listed in the **Wildfire Mitigation Matrix** (Attachment 1).
- Reviewing and completing a **Wildfire Risk Checklist** (Attachment 2) at the beginning of each work day.
- Conducting daily safety tailboard meetings and discussing fire danger, CFPP requirements, communication procedures, and emergency response procedures (refer to Section 5.4).
- Designating personnel for specific CFPP roles for the day, such as the **Dedicated Fire Watch** and/or **Working Fire Watch** (refer to Section 2.4.3).

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- Ensuring all construction workers implement all appropriate work activity procedures and/or restrictions described in the CFPP for the daily FPI.
- Monitoring changing weather conditions and being aware of the possibility of increased fire danger while work is in progress.

2.4 CONSTRUCTION WORKERS AND OTHER PROJECT PERSONNEL

2.4.1 Role

Construction workers and other project personnel are any individuals working on the project site.

2.4.2 Training

All project personnel must be trained by a designated Environmental Inspector on the contents of the CFPP and provided a CFPP training brochure. The CFPP training is provided during the initial Worker Environmental Awareness Training provided by the designated Environmental Inspector. The Worker Environmental Awareness Training signature sheet is documentation that the worker has been trained on the CFPP.

All workers must be adequately trained on the basic function and use of the fire tools they are expected to carry (refer to Section 4.1).

2.4.3 Responsibilities

All project personnel are responsible for:

- Ensuring they have received the required Worker Environmental Awareness Training from the designated Environmental Inspector that includes CFPP training.
- Informing the designated Environmental Inspector if they have been away for more than one month and requesting the refresher CFPP training.
- Participating in the daily tailboards and making sure they understand the daily FPI rating and operating procedures according to the **Wildfire Mitigation Matrix** (Attachment 1) and the daily **Wildfire Risk Checklist** (Attachment 2).
- Implementing all appropriate work activity procedures and/or restrictions described in the CFPP for the daily FPI.

Select construction workers will be assigned daily tasks by the crew foremen when necessary. These roles are described below and would be required during certain FPI ratings or during high risk activities, as discussed in the following section.

- **Dedicated Fire Watch:** a crew member whose only assigned job responsibility for the workday is to stand by at a jobsite to watch for fire ignitions while work is being performed. This person should have complete situational awareness, help to extinguish fires quickly, and stop work, when needed, due to safety.

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- **Working Fire Watch:** a crew member responsible for fire detection, risk mitigation, and total situational awareness while work is being performed in addition to normal assigned work duties. This crew member is also responsible to help extinguish fires and stop work, when required, due to safety hazards.

Fire Patrol Logs (Attachment 3) must be completed to document all **Dedicated Fire Watch** or **Working Fire Watch** activities.

3.0 FIRE DANGER AWARENESS

3.1 PG&E'S FIRE POTENTIAL INDEX AREAS AND RATING SCALE

Fire Index Areas are geographical areas where fire weather and risk factors are evaluated within PG&E's service territory. The PG&E Meteorology Team operates a high-resolution model to evaluate rapidly changing fire risk and weather based on multiple parameters, including forecast fuel moisture, humidity, wind speed, and air temperature. Model outputs are used to forecast and rate fire risk for each Fire Index Area in PG&E's service territory. These ratings are Fire Potential Index (FPI) Ratings.

Effective July 30, 2019, the rating scale of PG&E's FPI changed to a numeric rating scale (R1 to R5-Plus). The change was requested by external fire agencies to prevent confusion with public-facing ratings from Cal Fire and USFS. The translation between the old and new FPI terms is summarized in **Table 2** below. Colors in the procedure group correspond to the table provided in the **Wildfire Mitigation Matrix** (Attachment 1).

Table 2. Fire Potential Index Rating Scale and CFPP Procedure Group

Current Scale (Previous Scale)	Rating Description	CFPP Procedure Group
R1 (Low)	Very little or no fire danger.	1
R2 (Medium)	Moderate fire danger.	
R3 (High)	When fire danger is so high that care must be taken using fire-starting equipment. Local conditions may limit the use of machinery and equipment to certain hours of the day.	
R4 (Very High)	Fire danger is critical. The use of equipment and open flames are limited to specific areas and times.	2
R5 (Extreme)	Fire danger is so critical that the use of equipment and open flames are not allowed at any time.	3
R5-Plus (Extreme-Plus)	Same fire potential as R5, plus potential for wind-related outage activity, which may warrant a Public Safety Power Shutoff (PSPS) event.	4

3.2 NATIONAL WEATHER SERVICE FIRE WEATHER

The National Weather Service (NWS) also provides similar fire weather forecasts² to PG&E's FPI system; however, the NWS forecasts use mapping areas, criteria, and terminology. Fire Weather identified by the NWS includes the following terms and definitions:

- **Red Flag Warning (RFW):** Take Action. Be extremely careful with open flames. NWS issues a Red Flag Warning, in conjunction with land management agencies, to alert land managers to an ongoing or imminent critical fire weather pattern. NWS issues a Red Flag Warning when fire conditions are ongoing or expected to occur shortly.
- **Fire Weather Watch (FWW):** Be Prepared. A Watch alerts land managers and the public that upcoming weather conditions could result in extensive wildland fire occurrence or extreme fire behavior. A watch means critical fire weather conditions are possible but not imminent or occurring.

For the purposes of the CFPP, RFWs and FWWs will be treated as FPI Rating "R5-Plus." Project requirements during such fire weather are defined in the **Wildfire Mitigation Matrix** (Attachment 1). At a minimum if a RFW is issued for all or part of the project area, PG&E will cease all non-emergency project activities in any affected areas as outlined in Attachment 1, unless specifically authorized by the CPUC in writing.

3.3 DAILY NOTIFICATIONS FOR PROJECT PERSONNEL

Daily notifications will be provided to all project staff who need access on a daily basis in order to comply with the CFPP. The daily notifications will provide FPI ratings and information on RFWs and FWWs in the project area. PG&E staff can access fire danger information through the Transmission Operations Center or PG&E Intranet, or by requesting daily notification emails (<http://www.t2/Weather/EO/FireIndex/default.asp>). Non-PG&E personnel that do not have access to the PG&E Intranet must request access to daily notification emails. **Request daily notification emails from Tom Davis, the project Environmental Compliance Supervisor, at Thomas.davis@stantec.com.**

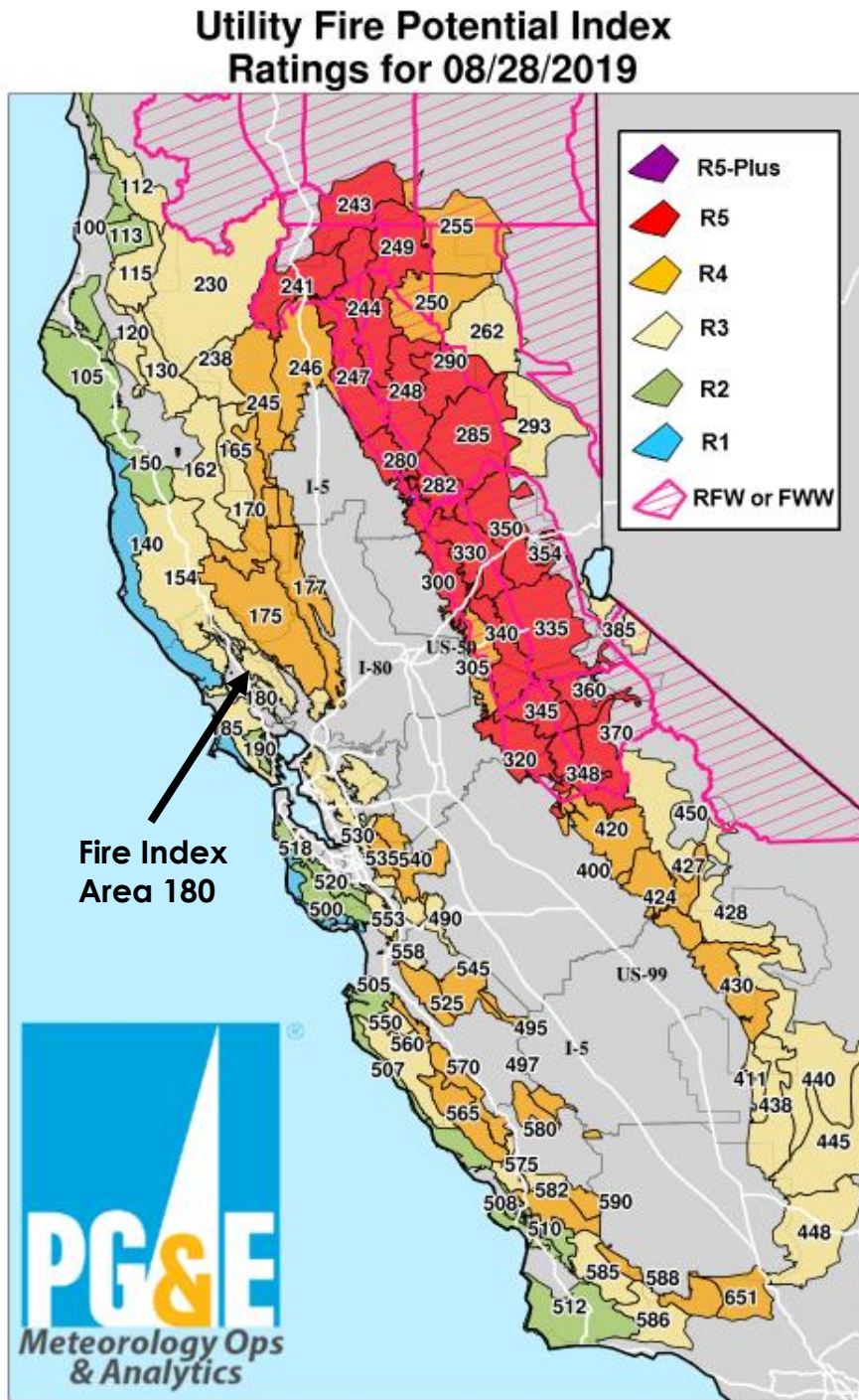
The daily notification emails will include fire danger information for PG&E's entire service territory, including maps of the current and following day's FPI rating (see **Figure 2**) and other resources. The project site is located within **Fire Index Area 180** (see **Figure 2**).

The daily FPI summary is a prediction of the most severe fire index from midnight to midnight, for the subsequent 2 days. The summary is sent to email recipients each day at approximately 0615 hours (6:15 am) and is effective beginning at 0600 hours (6:00 a.m.) that day, and for the next 24 hours. Intraday updates are rare but may occur if fire danger conditions or other circumstances warrant an update. It shall be the responsibility of any person in charge of personnel working on the project to keep abreast of changing local fire weather conditions and the possibility of increased fire danger during the time work is in progress.

² <https://www.weather.gov/safety/wildfire>

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Figure 2 Example Daily Notification Maps



This forecast is intended and has been customized for PG&E utility operations and should not be used for any other purpose or by any other entity. Do not share this information without authorization.

4.0 FIRE PREVENTION REQUIREMENTS

4.1 FIRE TOOLS

4.1.1 Vehicles and Passenger Equipment

At a minimum, fire tools must be available in vehicles and passenger equipment, as listed below:

- **Passenger vehicles:**
 - One shovel, McLeod, or Pulaski
 - One fire extinguisher in good working order, minimum U.L. rated 1A10BC
 - Note: fire tools are not required in passenger vehicles if they are not driven in remotely vegetated areas.
- **Trucks, four-wheel drive vehicles, and all-terrain vehicles (ATVs):**
 - One shovel, McLeod, or Pulaski
 - One 5-gallon backpack pump or larger capacity water (or Compressed Air Foam System [CAFS]) pump/delivery system
 - Note: Delivery trucks or water tankers do not need to be equipped with fire tool described in this section; however, delivery truck drivers need to follow all fire plan procedures while accessing the site.
- **Passenger equipment** (e.g., tractors, tub grinders, whole tree chippers, excavators, bulldozers):
 - One shovel, McLeod, or Pulaski
 - One fire extinguisher in good working order, minimum U.L. rated 1A10BC
 - One 5-gallon backpack pump or larger capacity water (or CAFS) pump/delivery system

When multiple vehicles or passenger equipment are traveling together, each vehicle is not required to carry a full set of tools if appropriate. At a minimum, fire tools must be available during high risk periods where there is an elevated risk of ignition from the operation of vehicles or equipment.

4.1.2 Fire Toolboxes

During major work operations where there are not enough tools on vehicles or at the jobsite to outfit all crew members at the operation, a sealed toolbox is required to be at the jobsite. Fire toolboxes must be easily accessible to workers and remain unlocked during active work periods. Fire tools must be available within approximately 50 feet of active work areas that involve a risk of igniting wildfires. A fire toolbox must contain, at a minimum:

- Two 5-gallon backpack pumps or larger capacity water (or Compressed Air Foam System [CAFS]) pump/delivery systems
- Two axes or Pulaskis
- Two McLeods
- Enough shovels for each employee at the operation

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4.1.3 Fire Tool Maintenance, Training, and Expectations

All fire tools must be maintained in good working condition. All workers must be adequately trained on the basic function and use of the fire tools they are expected to carry.

At no time will any PG&E employee or contractor be asked to fight any fire beyond their experience and training.

4.2 ACTIVITY-SPECIFIC REQUIREMENTS AND PROCEDURES

4.2.1 Off-Road Travel

- **R1, R2, R3, R4, and R5:** At all times, vehicles and equipment should remain on bare surfaces clear of vegetation whenever possible. Only drive overland (through fields, forests, etc.) when performing required work or during an emergency. While driving off designated roadways, maintain situational awareness and look for and avoid dry vegetation that could be ignited when driving on dry brush, grass, or other vegetation. When possible, ensure vehicles are parked in an area cleared of vegetation. If unable to park in a cleared area, the following procedure must be followed:
 - Maintain situational awareness for potential ignitions at all time.
 - Ensure the proper fire extinguishing tools are on the vehicle, as described above.
 - Look under the vehicle once parked to ensure that dry vegetation is not in contact with any of the exhaust system, which is a possible ignition source.
 - Turn off the motors of unoccupied vehicles when parking them off road. If a motor must remain running off road for work purposes, it should not be left unsupervised.All motorized equipment shall be properly maintained and should have a spark arrestor, per PRC 4442.
- **R5 Plus (including RFWs or FWWs):** All non-emergency work is prohibited, including off-road travel for the project.

4.2.2 General Requirements

4.2.2.1 Work Areas Away from Vegetation and Flammable Materials

All work activities must be conducted in a fire safe manner; however, the specific requirements in the CFPP are directed at project construction activities that pose a risk of igniting a wildfire. The CFPP requirements described in this section would not apply to project construction activities under the following conditions:

- (1) The work area and its surroundings are completely free of any vegetation and flammable materials that could be ignited and result in a wildfire, which may include paved or graveled substations or stationary work areas that are used on a long-term basis (i.e., staging areas or laydown yards). The Fire Expert is responsible for reviewing the vegetation and flammable material conditions and making any CFPP exemptions on a case-by-case basis. Any

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flammable materials storage at the work area (i.e., fuels, wastes, etc.) must be considered when making these determinations.

- (2) The work activities do not include high fire risk activities, such as welding, grinding, cutting, or overhead reconductoring over energized lines. There are specific CFPP requirements discussed in Sections 4.2.4 and 4.2.5 for these high fire risk activities even if vegetation or flammable materials are absent.
- (3) The FPI rating is below R5 Plus (including RFWs or FWWs) and work is not otherwise restricted for safety reasons.

Where long-term stationary ground level work will occur (i.e., staging areas and laydown yards) that would occur during periods or in areas with elevated fire risk, the designated work area limits should be cleared of vegetation that poses a fire risk (i.e., grass, leaf litter, shrubs) or covered with gravel or base rock. All vegetation clearing and site development procedures must follow applicable environmental requirements and should be cleared by PG&E's environmental team in advance.

If work areas cannot be sufficiently cleared of vegetation and flammable materials that could be ignited and result in a wildfire (within or adjacent), as deemed appropriate by the Fire Expert, the requirements in Section 4.2.2.2 would apply.

4.2.2.2 Work Areas Near Vegetation or Flammable Materials

All work activities that occur within or near vegetation or flammable materials that could be ignited and result in a wildfire are required to follow the general CFPP requirements described in this section. Such work areas may include smaller or mobile work areas within or adjacent to vegetation (i.e., grasslands, forests, etc.). Unless the Fire Expert has exempted the specific work area based on the provisions described in Section 4.2.2.1, then the following procedures must be followed:

- **R1, R2, and R3:** When the FPI rating is "R1," "R2," or "R3," at least 120 gallons and 200 feet of hose with 40 psi at the nozzle must be made available solely for fire prevention. The quantity of water and distance of hose should be increased as needed based on the work area size to be able to respond to any potential fires. For larger work areas, multiple water tanks or a water truck should be available to respond to any fire within the work area. Dedicated water tanks and sufficient water reserves must always be available for fire response.
- **R4:** When the FPI rating is "R4," the same quantity of water and hose listed above must be made available, and a **Working Fire Watch** must be assigned.
- **R5:** When the FPI rating is "R5," the same quantity of water and hose listed above must be made available, and **Dedicated Fire Watch** must be assigned whose sole task is operating the hose. In very small work areas (i.e., a pole site, vegetation clearing site, or road work site) where a fire could be easily spotted by multiple workers, two or more **Working Fire Watches** may be assigned in lieu of a **Dedicated Fire Watch** as long as they remain within 50 feet of all work activities and a dedicated water supply and hose for fire response.
- **R5 Plus (including RFWs or FWWs):** All non-emergency work is prohibited, including areas free of vegetation and flammable materials.

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4.2.3 Hot Work Requirements

In addition to the general requirements described in Section 4.2.2.2, the following procedures must be followed for any "hot work" that occurs during construction. Hot work includes welding, grinding, cutting, or any other activity that produces flame, sparks, or embers.

- **R1, R2, and R3:**
 - All hot work must be conducted either within enclosed buildings or areas cleared of all flammable material for a 50-foot radius or greater.³
 - If FPI rating is "R1," "R2," or "R3," then there must be a **Working Fire Watch** assigned to monitor the work area. The work area shall be monitored for at least 30 minutes following any hot work.
- **R4 and R5:** If the FPI rating is "R4" or "R5," then there must be a **Dedicated Fire Watch** assigned that is equipped with at least 120 gallons of water with 200 feet of hose and 40 pounds per square inch (psi) at the nozzle. The work area shall be monitored for at least 30 minutes following any hot work.
- **R5 Plus (including RFWs or FWWs):** All non-emergency work prohibited, including hot work for the project.

4.2.4 Overhead Reconductoring Requirements

In addition to the general requirements described in Section 4.2.2.2, the following procedures must be followed when reconductoring over energized lines, and the crossing is within or near vegetation that could be ignited by a dropped line coming into contact with the energized lines:

- **R1, R2, and R3:**
 - During all reconductoring activities, adequate guard structures must be installed or positioned over energized lines or the lines must be taken out of service during overhead conductor removal and installation.
 - If reconductoring over energized lines occurs when the FPI rating is "R1," "R2," or "R3," then there must be a **Working Fire Watch** assigned to monitor each crossing location in vegetated areas during line pulling and tensioning.
- **R4 and R5:** If reconductoring over energized lines occurs when the FPI rating is "R4" or "R5" then there must be a **Dedicated Fire Watch** assigned to monitor each crossing location in vegetated areas during line pulling and tensioning.
- **R5 Plus (including RFWs or FWWs):** All non-emergency work prohibited, including reconductoring for the project.

³ Additional clearance or the use of frame-mounted welding blankets would be required if sparks could travel beyond 50 feet due to wind or any other factor.

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4.2.5 Smoking Restrictions⁴

- **R1, R2, R3, R4, and R5:** Smoking is only allowed on site under the following conditions:
 - The area is clear of vegetation with at least a 3-foot radius (down to mineral soil).
 - There is a means readily available to extinguish any potential ignition from smoking.
 - There is a water-filled or sand-filled receptacle (e.g., a metal bucket) to extinguish cigarettes, cigars, etc.
- **R5 Plus (including RFWs or FWWs):** Smoking on site is prohibited.

4.2.6 Burning Materials

Burning materials such as vegetation or wastes is always prohibited on the project.

4.2.7 Refueling Procedures

At all times, refueling shall occur in designated areas with appropriate measures in place to prevent spills and fires. Fuel tanks shall be stored in a safe manner away from vehicle and equipment traffic, hot work, and smoking. Aircraft refuelers must be equipped with at least two fire extinguishers having a minimum rating of 20-B:C (U.F.C. Standard No. 10-1). A fire extinguisher must be readily accessible from either side of the vehicle. Portable fire extinguishers must be within 75 of where fuel is dispensed for aircrafts.

4.2.8 Maintain Emergency Access

At all times, roadways shall be left open and functional to allow for evacuation and fire agency response. No parking on roads or blocking of gates that would prevent ingress/egress is permitted; at least one lane of traffic shall be left open.

5.0 REGULAR COMMUNICATIONS AND DOCUMENTATION

5.1 AS NEEDED TRAINING

5.1.1 Advanced Training

Designated Environmental Inspectors that provide CFPP trainings must first receive advanced CFPP training (refer to Section 2.2). Crew foremen/superintendents must also receive advanced CFPP training (refer to Section 2.3). Prior to assuming these roles, the **Advanced Training Signature Sheet** (Attachment 4) must be completed and signed by the Fire Expert.

⁴ PG&E has elected to increase smoking restrictions beyond the requirements specified in APM HM-3: Smoking and Fire Rules and MM Hazards-2: Construction Fire Prevention Plan.

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5.1.2 Basic Training

As discussed in Section 2, all project personnel must receive CFPP training prior to beginning work on the project, and refresher training is required after being away from the project for more than one month. Basic CFPP trainings shall be provided as needed to workers and documented as part of the overall Worker Environmental Awareness Training (refer to Section 2.4). All workers must be adequately trained on the basic function and use of the fire tools they are expected to carry (refer to Section 4.1).

5.2 DAILY WILDFIRE RISK CHECKLIST

Each Crew Foreman/Superintendent is required to complete a **Wildfire Risk Checklist** (Attachment 2) for each day work occurs on the project (one per crew, per day).

5.3 DAILY COMMUNICATIONS CHECK

Portions of the project site are remote and cell phone reception may not be available at all times. At least one form of wireless communication must be available at active work sites to notify emergency personnel in the event of a fire. Cell phone, satellite phone, and/or radios are all acceptable. Crew foremen shall conduct a communications check when they arrive at their work location for the day, to ensure phones and/or radios are functioning properly.

For all remote locations, crew foremen shall have access to a list of GPS coordinates (latitude and longitude) for all active work sites to provide emergency responders in the event of a fire.

5.4 DAILY TAILBOARDS

Prior to beginning work each day, crew foremen shall go over the applicable fire safety procedures and requirements identified in the CFPP. The following topics should be covered in the daily tailboard meetings to ensure fire safety and compliance with the CFPP:

- Current and forecast FPI ratings for the project area (Fire Index Area 180)
- Daily **Wildfire Risk Checklist** (Attachment 2)
- Applicable daily fire prevention requirements and work restrictions, according to Section 4 and the **Wildfire Mitigation Matrix** (Attachment 1)
- Designation of staff as **Dedicated Fire Watch** and/or **Working Fire Watch** (refer to Section 2.4.3) according to the **Wildfire Mitigation Matrix** (Attachment 1)
- Communication procedures, evacuation routes, and meeting points in the event of a fire

5.5 AS NEEDED PATROL LOGS

When a **Dedicated Fire Watch** and/or **Working Fire Watch** is necessary according to the **Wildfire Mitigation Matrix** (Attachment 1) their patrol activities must be documented in the **Daily Patrol Logs** (Attachment 3).

CONSTRUCTION FIRE PREVENTION PLAN

5.6 REPORTING (PG&E ENVIRONMENTAL TEAM ONLY)

5.6.1 Weekly Reports

PG&E's environmental team shall document FPI ratings and NWS Fire Weather (e.g., RFWs or FWWs) for each construction workday in the Weekly Compliance Reports, as described in the project Mitigation Monitoring, Compliance, and Reporting Plan. The format of the documentation in the report will include a simple table roughly as follows:

Period Workday	Red Flag Warning or Fire Weather Watch	Fire Potential Index Rating	Notes
10/1/2018	Yes	R5	Fire safety and work restrictions were discussed during the morning tailboard; no high-risk activities occurred per the CFPP
10/2/2018	No	R2	Standard measures of the CFPP were implemented as required

5.6.2 Monthly Reports

On a monthly basis, PG&E's environmental team shall obtain and compile all CFPP documentation for the period, including completed basic and advanced CFPP training documentation, **Daily Wildfire Risk Checklist** (Attachment 2), and **Patrol Logs** (Attachment 3).

6.0 FIRE RESPONSE

If a fire is started on the jobsite, regardless of size or complexity, personnel must perform the following actions:

- Call emergency services (9-1-1) to report the ignition, even if the fire has been suppressed.
- Take safe, reasonable suppression actions consistent with the person's experience and training.
- If necessary, evacuate to a safe location and provide any information possible to first responders when they arrive.
- Contact the PG&E Planner and Lead Environmental Inspector immediately. The PG&E Planner or, if not available, the Lead Environmental Inspector will contact the CPUC Project Manager immediately.
- After contacting emergency services, the jobsite supervisor must call the Wildfire Safety Operations Center (WSOC) at 1-800-255-7593 to report the fire. The supervisor must include, at a minimum, the location, source of ignition, and impacted assets.
- All personnel must report incidents to their direct supervisors and follow any further reporting procedures, as required.

**ATTACHMENT 1:
WILDFIRE MITIGATION MATRIX**

CONSTRUCTION FIRE PREVENTION PLAN

Wildfire Mitigation Matrix

The following table summarizes daily operating procedures and work restrictions by Fire Potential Index (FPI) and National Weather Service Fire Weather (e.g., Red Flag Warnings [RFW] or Fire Weather Watches [FWW]). Operating procedures for each FPI rating are inclusive of all preceding (lower) ratings. For example, R5 procedures would also include those specified for R1 through R4.

Fire Prevention Requirements and Procedures	FPI Rating and NWS Fire Weather & Project Operating Level			
	R1, R2, R3 (Low to High)	R4 (Very High)	R5 (Extreme)	R5-Plus & RFW or FWW (Extreme-Plus)
Regular Communications and Documentation	Complete as needed trainings and document according to Sections 2 and 5.1. Each workday, complete a Daily Wildfire Risk Checklist , Daily Communications Check , and Daily Tailboard . Whenever a Working Fire Watch or a Dedicated Fire Watch are required, fill out a Patrol Log .			
Refueling Procedures	At all times, refueling shall occur in designated areas with appropriate measures in place to prevent spills and fires. Fuel tanks shall be stored in a safe manner away from vehicle and equipment traffic, hot work, and smoking. Aircraft refuelers must be equipped with at least two fire extinguishers having a minimum rating of 20-B:C (U.F.C. Standard No. 10-1). A fire extinguisher must be readily accessible from either side of the vehicle. Portable fire extinguishers must be within 75 feet of where fuel is dispensed for aircrafts.			
Maintain Emergency Access	At all times, roadways shall be left open and functional to allow for evacuation and fire agency response. No parking on roads or blocking of gates that would prevent ingress/egress is permitted; at least one lane of traffic shall be left open.			
Fire Tools	At all times, functioning fire tools must be carried in all vehicles and passenger equipment, and/or available in fire toolboxes, as described in Section 4.1 of the Construction Fire Prevention Plan.			
Off-road Travel	The risk of ignition from off-road travel must always be minimized through safe practices and situational awareness, as described in Section 4.2.1. Do not park with an exhaust system in contact with dry vegetation. Do not leave a running motor unsupervised. All motorized equipment shall be properly maintained and should have a spark arrestor, per PRC 4442.			
General Requirements at all Work Areas (limited exceptions may be made by the Fire Expert as described in Section 4.2.2.1)	At least 120 gallons and 200 feet of hose with 40 psi at the nozzle must be made available solely for fire prevention. The quantity of water and distance of hose should be increased as needed based on the work area size to be able to respond to any fires. For larger work areas, multiple water tanks or a water truck should be available to respond to any fire within the work area. Dedicated water tanks and sufficient water reserves must always be available for fire response.	A Working Fire Watch must be assigned in addition to the requirements listed under R1, R2, R3.	A Dedicated Fire Watch must be assigned in addition to the requirements listed under R1, R2, R3 whose sole task is operating the hose. In very small work areas (i.e., a pole site, vegetation clearing site, or road work site) where a fire could be easily spotted by multiple workers, two or more Working Fire Watches may be assigned in lieu of a Dedicated Fire Watch as long as they remain within 50 feet of all work activities and a dedicated water supply and hose for fire response.	All non-emergency is work prohibited.
Hot Work Requirements (i.e., welding, grinding, cutting, or any other operation than produces flame, sparks, or embers)	In addition to the General Requirements above, all hot work must be conducted either within enclosed buildings or areas cleared of all flammable material for a 50-foot radius or greater. A Working Fire Watch must be assigned to monitor the work area. The work area shall be monitored for at least 30 minutes following any hot work.	A Dedicated Fire Watch , equipped with at least 120 gallons of water with 200 feet of hose and 40 pounds per square inch (psi) at the nozzle, must be assigned to monitor the work. The work area shall be monitored for at least 30 minutes following any hot work.		
Overhead Reconducting Requirements	In addition to the General Requirements above, adequate guard structures must always be positioned over energized lines during overhead reconducting. A Working Fire Watch must be assigned to monitor each crossing location in vegetated areas during line pulling and tensioning activities.	A Dedicated Fire Watch must be assigned to monitor each crossing location in vegetated areas during line pulling and tensioning activities.		
Smoking Restrictions¹	Any smoking must be limited to areas cleared of vegetation to a 3-foot radius, near means to extinguish any potential ignition, and there is a water or sand filled receptacle to extinguish.			
Burning Materials	Burning materials (open fires) is always prohibited on the project.			

¹ PG&E has elected to increase smoking restrictions beyond the requirements specified in APM HM-3: Smoking and Fire Rules and MM Hazards-2: Construction Fire Prevention Plan.

**ATTACHMENT 2:
WILDFIRE RISK CHECKLIST**

Preventing and Mitigating Fires While Performing PG&E Work

Attachment 2, Wildfire Risk Checklist

Date: _____ Time: _____ Work Supervisor Name: _____
Work Description: _____ Supervisor Signature: _____

WORK LOCATIONS

Nearest Address: _____

Cross Street: _____

Latitude: _____ Longitude: _____

Local Fire Agency: _____ Fire Agency Dispatch #: _____

(Please see the Job Packet for more Location Information)

ENVIRONMENTAL CONDITIONS

PG&E Index Area: _____ Fire Danger Rating: _____ Red Flag: Y / N

Evacuation Plan: _____

FIRE RISK MITIGATIONS

- Vegetation Clearance of 10 ft surrounding the work activities (within designated work area)
- Wetting down the jobsite
- Welding Blanket or tent is being used on the jobsite
- Work Fire Watch is assigned _____
- Dedicated Fire Watch is on the jobsite _____
- Fire extinguisher located within 25' of operating internal combustion engines
- Water delivery system is on the jobsite with 40 lbs of pressure and 200 ft of hose
- Other: _____

FIRE SUPPRESSION TOOL INVENTORY

- Back style water pump
- Pressurized water extinguisher with foam
- 2A10BC Fire Extinguisher(s)
- Fire Extinguishers charged and current certification from CASFM
- Scraping tools available (enough to extinguish a fire, if needed)
- Shovel
- McLeod
- _____ (Other)
- _____ (Other)
- _____ (Other)

**ATTACHMENT 3:
FIRE PATROL LOG**

**ATTACHMENT 4:
ADVANCED TRAINING SIGNATURE SHEET**

**Construction Fire Prevention Plan
Fulton-Fitch Mountain
Reconductoring Project**

LETTER OF ACKNOWLEDGMENT AND CERTIFICATION

The following is a letter of employee/contractor acknowledgment and certification.

EMPLOYEE/CONTRACTOR ACKNOWLEDGMENT AND CERTIFICATION

I, _____, certify that I have received a copy of the Construction Fire Prevention Plan (CFPP) for Fulton-Fitch Mountain Reconductoring Project. I understand and agree that it is my responsibility to read fully, understand the policies, and follow the policies set forth in the CFPP. I acknowledge that if I have any questions, comments, or concerns regarding my responsibilities associated with the CFPP I will coordinate with the Project Fire Expert to resolve them.

Date: _____

Foreman,
Superintendent, or
Environmental Inspector

Signature: _____

Name (PRINTED): _____

Project Fire Expert
(witness)

Signature: _____

Name (PRINTED): _____