Pacific Gas and Electric Company®

Wildfire Annex

to the Company Emergency Response Plan

[redacted]

Tel: [redacted]
http://www.pge.com

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EMER-3105M

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Document Control

PG&E's Emergency Preparedness and Response (EP&R) department maintains the *Wildfire Annex* to the *Company Emergency Response Plan (CERP)*, (EMER-3001M). This section records the revisions made to the plan, and approval of the plan by the persons responsible for its preparation, maintenance, and update. Additional information about the maintenance of the *Annex* can be found in section 1.10, "Annex Maintenance".

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

Section(s) Affected	Person Responsible for Revision	Change
Preparer, Reviewers, Owner, Approvers, and Recision Log sections	[redacted]	Updated the sections.
Throughout, made edits and updated links.		Made edits and updated links.
1.7		Removed enhanced vegetation management from current WMP action categories.
2.2		Updated Figure 2-5 with CERP version 9 EOC organization chart.
2.2.2.3		Removed references of PSPS activities.
4.3		Inserted CERP Wildfire Annex V1 subsection 4.4 response phase language.
4.3.3		Updated the ENV restoration actions and needed information.
4.3.4		Added a new section.
4.3.5		Updated to align with 4.3.3 changes.
4.4.1		Updated the section with new enhancements.
5		Updated the section to align with the *Integrated Preparedness Plan* (IPP).

Recision Log

Document Number	Title
EMER-3105M	Wildfire Annex, Rev 4, Published 05/01/2023

Reference Documents

Document Number	Title
EMER-1001S	Business Continuity Planning, Training, Exercise, and Improvement Planning Standard
EMER-2003S	EOC Activation After-Action Report (AAR) Process Standard
EMER-3001M	Company Emergency Response Plan (CERP)
EMER-3002M	Electric Annex
EMER-3003M	Gas Emergency Response Plan (GERP)
EMER-3005M	Logistics Annex
EMER-3006M	Human Resources (HR) Annex
EMER-3012M	Disaster Rebuild Annex
EMER-3106M	PSPS Annex
EMER-4501S	Framework for Electric Incident Management Teams Standard
EMER-4510S	OEC Activation Requirements
GOV-6102P-03	Electric Operations Cause Evaluation Process
LAW-3001P-02	First Responders Evidence Procedure
RISK-6305P-01	Electric Incident Reporting On-Call Representative Procedure
RISK-6305P-02	Electric Incident Investigation (EII) Procedure
RISK-6306S	Fire Incident Data Collection Plan and Reporting Standard
SAFE-1100P-01	Serious Injury and Fatality Procedure
SAFE-1042S	Wildfire Smoke Exposure Standard
EMER-4102S	Preventing and Mitigation Fires While Performing PG&E Work
TD-1400P-07-Att02.	Transmission Line Switching, Non-Reclose, and EPSS
TD-8100	Electric Strategic Asset Management Plan
GO 166	California Public Utilities Commission's General Order 166
PRC §4292	California Public Resources Code §4292, Minimum Clearance Provisions
PRC §4293	California Public Resources Code §4293, Exempt Minimum Clearance Provisions
ESRB-4	California Public Utilities Commission Resolution ESRB-4
ESRB-8	California Public Utilities Commission Resolution ESRB-8
CPUC E-4184	California Public Utilities Commission Resolution E-4184
NERC Std FAC 003-3	North American Electric Reliability Corporation Standard FAC 003-3, Transmission Vegetation Management
Service Rule 11	Electric Service Rule 11, Discontinuance and Restoration of Services

Internal

Document Preparer

Name	Position
[redacted]	Gas Program Manager, Expert, EP&R Planning
	Technical Writer, Expert, EP&R Planning

Document Reviewers

Name	Position
[redacted]	Manager, Emergency Response Planning
	Electric Emergency Mgt Spec, Expert
	Geosciences Consultant, Principal
	Program Manager, Principal

Document Owner

Name	Position
[redacted]	Director, Emergency Preparedness & Response Strategy & Execution

Document Approvers

Name	Position
	Vice President, Emergency Preparedness & Response (EP&R)
[redacted]	Director, Emergency Preparedness & Response Strategy & Execution

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Change Request Form

To request changes, corrections, or additions to this *Annex*, the *Company Emergency Response Plan (CERP)* (EMER-3001M), or other associated annexes, submit a request through the online change request here.

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan. EP&R will publish a bulletin to the *CERP* or *annex* to cover this information. Minor changes will be saved and addressed during the next document update.

Once the bulletin is communicated, a copy will be published under the respective annex located in the GDL and be included as content in the next annex update.

1 Introduction

1.1 Purpose

The purpose of the *Wildfire Annex* is to provide a high-level overview of Pacific Gas and Electric Company (PG&E) actions and strategies regarding wildfires.

PG&E's goal is to provide safe, reliable, affordable, and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions, and develop processes to ensure the safe, prompt, and efficient restoration of services.

In support of that goal, PG&E has developed a *Company Emergency Response Plan (CERP)* (EMER-3001M) to provide staff with a safe, efficient, and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the *CERP*.

1.2 Scope

The scope of this *annex* covers actions and strategies to ***prepare for, mitigate against***, ***respond to, and recover from*** wildfire incidents directly or potentially impacting PG&E. This a*nnex* depicts PG&E's coordination and communication, both internal and external, that provides an organized and comprehensive approach to managing wildfires. This *annex* references other technical and operational plans to explain how certain actions and strategies are implemented and is not a replacement or substitute for those documents.

This a*nnex* will accomplish the following:

- Create an inter-departmental outline of wildfire actions and strategies.
- Identify roles and responsibilities pertaining to wildfires.
- Provide a broad overview of PG&E's emergency organization addressing wildfires.
- Identify existing wildfire governance (policies, procedures, programs, and plans).

1.3 Emergency Response Priorities

PG&E is committed to safely delivering reliable and affordable clean energy. This includes managing the challenges of changing climates and ensuring the safe and efficient restoration of energy after events that impact the community and/or the gas and electric systems. In support of this commitment, PG&E has established the following emergency planning and response priorities:

- Protect the health and welfare of the public, PG&E responders, and others.
- Protect property of the public, PG&E, and others.
- Inform customers, governmental agencies and representatives, the news media, and other constituents.
- Restore generation, gas, and electric service.
- Restore critical business functions and move to resume business as usual.

During both routine and emergency operations, PG&E works within a "*speak up, listen up, and follow up*" culture. PG&E champions safety, communication, and partnership, working as one team to achieve its goals.

1.4 Key Terms

To assist with a better understanding of the actions and strategies presented in this *Annex*, the following terms have been defined. These terms are used in the *annex* and carry importance to wildfires. Note that **Error! Reference source not found.** contains a glossary of additional terms used in the *annex*.

- ***Wildfire*** – Any fire, larger than three linear meters in diameter, which occurs or originates in an undeveloped or wildland area; prescribed burns are not included in this definition.
- ***Spot Fire*** – A small area of fire that is ignited from sparks and embers thrown from the main body of fire.
- ***High Fire Threat District (HFTD)*** – Areas adopted by the California Public Utilities Commission (CPUC) with elevated or extreme wildfire risk and in proximity to communities at risk.
- ***High Fire Risk Area*** – A purpose-built map for use in scoping Public Safety Power Shutoff events identifying areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.
- ***Fire Potential Index (FPI)*** – A matrix demonstrating indicators of potential fire risk. This scale ranges from R1 (indicating optimal weather and fuel conditions), to R5-Plus (indicating an extreme and imminent fire ignition hazard).
- ***Fire Index Areas (FIA)*** – Subregions within the PG&E territory that are segmented by geographical location to support daily evaluation of environmental fire risk associated with operations, maintenance, or construction activities.
- ***Hazard Awareness & Warning Center (HAWC)*** – PG&E's centralized awareness and warning center set up to detect, assess, mitigate, communicate, and respond to all-hazards threats.
- ***Community Wildfire Safety Program (CWSP)*** – A holistic PG&E program focused on wildfire Preparedness and Mitigation; and supports wildfire response and recovery efforts.
- ***Public Safety Power Shutoff (PSPS)*** – A program designed to prevent wildfire by deliberately de-energizing either transmission, distribution lines, or both, as a pre-emptive measure following a prescribed protocol that accounts for weather conditions and risk analysis.
- ***De-energize*** – A deliberate shutdown of electricity from either transmission or distribution lines; this may be performed as the result of a PSPS Event, by PG&E to mitigate an unsafe condition, or upon request from an external agency (*e.g.,* California Department of Forestry and Fire Protection, California Office of Emergency Services or Cal OES, and Bureau of Land Management or BLM.

- ***Safety and Infrastructure Protection Teams (SIPT)*** – Wildfire mitigation teams established to monitor high-risk work activities and protect PG&E facilities in high fire-risk areas in coordination with the Authority Having Jurisdiction.

1.5 Regulations and Authorities

The *Wildfire Annex* is an annex to the *CERP* (EMER-3001M), and the regulations and authorities covered in the *CERP* are also applicable to this annex. In addition to the *CERP* Regulations and Authorities, the following documents or policies relate specifically to wildfires:

- ***California Public Utilities Commission (CPUC) General Order (GO) 95; Rules for Overhead Electric Line Construction*** – establishes and provides guidance on actions and requirements for overhead electric asset management throughout the State of California.
  https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M146/K646/146646565.pdf
- ***CPUC GO 165; Inspection Requirements for Electric Distribution and Transmission Facilities*** – establishes timelines for inspection of facilities throughout PG&E's service territory; for the purposes of this *Annex* emphasis is placed on High Fire Threat Districts.
  https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M078/K606/78606034.PDF
- ***CPUC GO 166: Standards for Operation, Reliability, and Safety during Emergencies and Disasters*** – this overarching standard outlines the requirements for documenting system readiness and compliance with CPUC regulations for all types of emergency and disaster incidents.
  General Order 166: Standards for Operation, Reliability, and Safety (ca.gov)
- ***California Code, Public Utilities Code (PUC §8386); Electric Corporation to Minimize Wildfire Risk; Wildfire Mitigation Plan*** – establishes requirements for public utilities to operate in a manner that will minimize the risk of catastrophic wildfires and requires them to develop and annually update a Wildfire Mitigation Plan.
  https://law.onecle.com/california/utilities/8386.html
- ***California Code, Public Resources Code (PRC §4292); Minimum Clearance Provisions*** – requirements, administered by the California Department of Forestry and Fire Protection (CAL FIRE), pertaining to a firebreak maintenance requirement to mitigate ignition risks associated with specific equipment that has the potential to expel hot or molten material upon normal operation. Exemptions to PRC 4292 clearance requirements are found in California Code of Regulations **Title 14 section 1255**.
  Microsoft Word - Statutes and Regulations for Powerline Clearance 10_29_18.docx (ca.gov)
- ***California Code, Public Resources Code (PRC §4293); Exempt Minimum Clearance Provisions*** – establishes requirements, administered by CAL FIRE, to maintain 4-foot clearance for power lines between 2,400-72,000 volts, and 10-foot clearance for conductors 115,000 volts and above.
  California Powerline Equipment Identification Pocket Guide

- ***CPUC Resolution ESRB-4*** – directs utilities to take practical measures (increased inspections and removal of potential fuels) to reduce fires, sharing resources with CAL FIRE, and clearing access roads under power lines. https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M096/K415/96415169.pdf
- ***CPUC Resolution ESRB-8*** – directs utilities to take appropriate and feasible steps to provide notice and enhanced customer outreach whenever they shut off power pursuant to statutory authority. https://docs.cpuc.ca.gov/publisheddocs/published/g000/m218/k186/218186823.pdf
- ***North American Electric Reliability Corporation (NERC) Standard FAC 003-3, Transmission Vegetation Management*** – is a Federal Energy Regulatory Commission (FERC) – approved standard to eliminate power outages due to vegetation contact on transmission lines carrying 200,000 volts or higher, and certain lower voltage transmission lines identified by the Western Electric Coordinating Council (WECC). https://www.nerc.com/pa/Stand/Pages/FAC0033RI.aspx
- ***Electric Service Rule 11, Discontinuance and Restoration of Service*** – specifies the conditions when a utility may disconnect service. Modified to allow incorporate High Fire Threat Districts. https://www.mid.org/tariffs/rules/rule_11.pdf
- ***Utility Standard EMER-4102S*** *Preventing and Mitigating Fires While Performing PG&E Work****,*** outlines and requires company representatives to adhere to established fire prevention directives while operating at, or traveling between, company worksites.

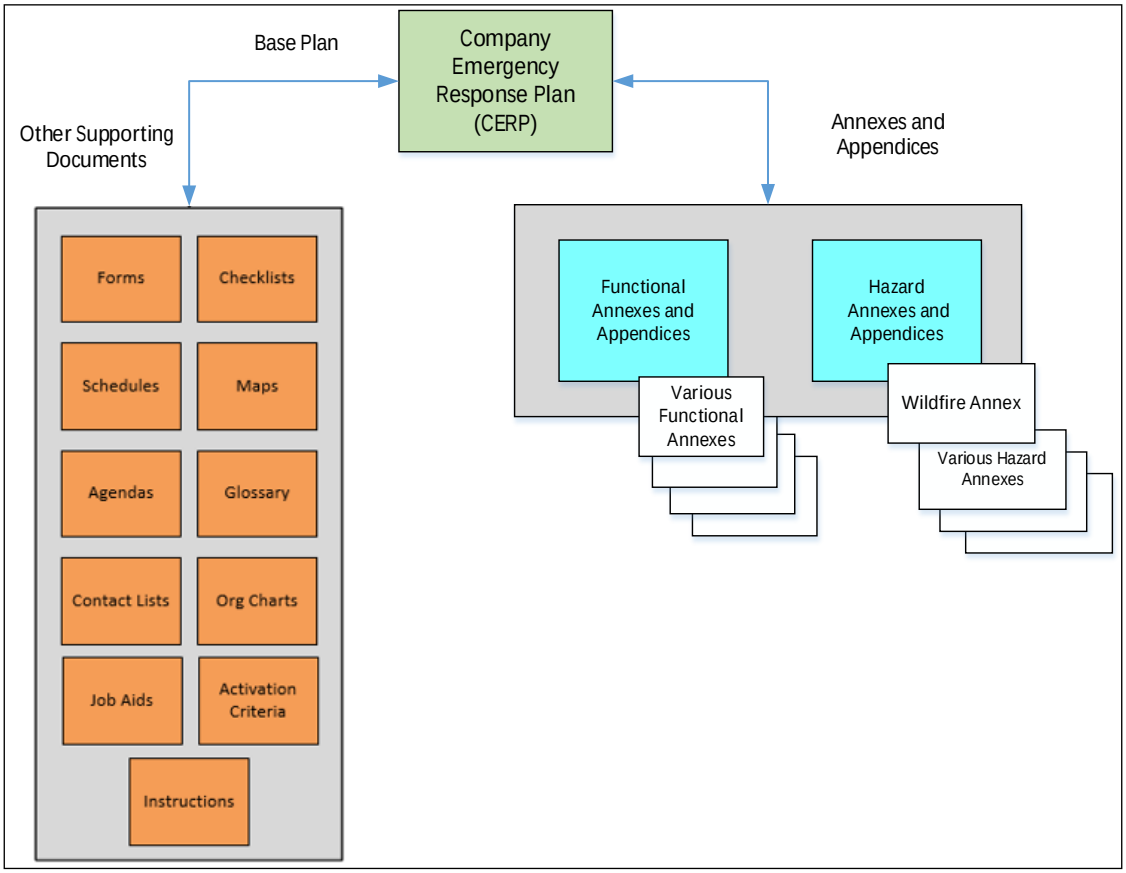
1.6 *Wildfire Annex* Relationship to Other PG&E Plans

The *Wildfire Annex* is a hazard-specific annex to the *Company Emergency Response Plan (CERP),* (EMER-3001M). Figure 1-1 illustrates the relation between this *Annex*, the *CERP*, other annexes, and supporting documents. Note that this is not an all-inclusive list.

The *CERP* (EMER-3001M) presents an emergency response structure with defined emergency roles and responsibilities in support of the Gas, Electric and other PG&E functional areas (FAs) and externally among agencies and organizations including:

- Government (local, state, tribal, and federal)
- Media
- Other gas and electric utilities
- Essential community services
- Vendors
- Public agencies
- First responders
- Contractors

Figure 1-1: Company Emergency Plan Structure and Annexes



Other plans that compliment this document include:

- A key element of the *CERP* is the alignment of PG&E FA support functions under a standardize event or incident management structure consistent with the National Incident Management System (NIMS), California Standardized Emergency Management System (SEMS), and the NIMS/SEMS component Incident Command System (ICS).
- Under the NIMS, SEMS, and ICS organizational structures, there are Command and General Staff functions. At the PG&E Emergency Operations Center (EOC), the Incident Commander and officers make up the command function or section and each of the subsequent general staff functions, led by section chiefs, consists of five functions: Operations, Intelligence and Investigations, Planning, Logistics, Finance and Administration.

PG&E organizes the emergency response model and staffs the EOC using principles from NIMS, SEMS, and ICS, including, but not limited to:

- Follow a unified approach, (*i.e.*, a single chain of command and adaptable to meet situational needs).
- Manage by a unified set of objectives, when possible, for single and dual commodity incidents.

- Manage equipment, facilities, personnel, procedures, and communications effectively.
- Standardize operational structures and terminology to enable disparate groups to work and communicate together in a predictable, coordinated manner.

1.7 Wildfire Mitigation Plan

In accordance with CPUC Code Section 8386.3, PG&E submits its *Wildfire Mitigation Plan (WMP)* as an annual report to the CPUC, outlining in detail the specific actions the company intends to take to reduce the frequency, scope, and impact of wildfires. Current action categories include:

- Asset Inspection and Repair (see also: Wildfire Safety Inspection Program)
- System Hardening
- System Automation
- Public Safety Power Shutoff

1.8 Relevant Programs

Wildfires are of great concern and focus within PG&E and other utilities in the State of California. Utilities, working together and independently, have developed, and implemented programs to further mitigate the wildfire hazard. Programs are continually assessed and evolving to increase company emergency capabilities to respond to wildfire emergencies. Almost every organization within PG&E has a wildfire response or preparedness component within it. Some of the PG&E programs that focus on wildfire mitigation, preparedness, or response are as follows:

- Community Wildfire Safety Program
- Public Safety Power Shutoff Program
- Enhanced Powerline Safety Settings
- Vegetation Management Program(s)
- Wildfire Safety Inspection Program(s)
- Wildfire Risk Management
- System Hardening Program

1.9 Planning Considerations

This a*nnex* incorporates the following planning considerations:

- There may not be advance notification of a wildfire ignition; however, with the employment of monitoring technologies, certain meteorological conditions favorable for wildfires may be forecast with enough lead time to take action to prevent an ignition from PG&E equipment.
- A significant wildfire event may trigger a PG&E Level 5 incident response. A Level 5 event is defined as a “Catastrophic” incident that involves multiple regions and FAs,

and which is likely to generate widespread external coordination and mutual assistance requirements.

- Federal, state, county, city, and some special district EOCs in the PG&E service territory may be activated.
- There may be one or more PG&E and/or external agency Incident Command Post and/or field emergency sites in use, depending on the scale and complexity of the incident.
- If gas or electric service is disrupted, there will be competing demands to restore services to:
  - Critical and essential customers
  - Core and non-core customers
  - Medical baseline customers
  - Displaced communities/populations
  - Resilience Zones
  - Disadvantaged Vulnerable Communities (as defined by State of California)
- There may be competing demand for and limited access to:
  - Water
  - Fuel
  - Other materiel (e.g., equipment, K-rails)
  - Coworkers
  - Electrical service, including backup generators
- Impacts to transportation, including extended travel times into an impacted area due to transportation issues (e.g., road conditions, absence of traffic lights, evacuees, and the movement of the fire).
- Extreme weather conditions (e.g., high temperatures, wind, and low humidity) may create cascading impacts and/or impact PG&E work efforts.
- PG&E coworkers in or near the incident area may also be affected, impacting their availability to perform their duties.

1.10Annex Maintenance

PG&E's Emergency Preparedness and Response (EP&R) department is responsible for developing, updating, and maintaining the *CERP* (EMER-3001M) and its annexes in collaboration with the subject matter experts from the responsible lines of business. Please refer to the *CERP* section 1.6 (Plan Maintenance) for information regarding document approval, revision, and periodic maintenance. After approval, the *CERP* and its annexes are published in PG&E's Guidance Document Library.

The *Wildfire Annex* is reviewed annually, and incorporates the following:

- Lessons learned from internal and external exercises and actual incidents

- Changes to existing policies, procedures, programs, or processes that support wildfire preparedness, mitigation, response, and/or recovery
- Feedback generated by PG&E subject matter experts, planning team, internal and external key stakeholders, and users of this a*nnex*
- Changes to laws or regulations

1.11Annex Organizational Structure

To ensure the information is comprehensive and user-friendly, this *Annex* has been organized by the following format:

- **Section 1 – Introduction –** provides background information necessary to understand: the need for the *Annex*; the subject matter; the governing regulations; and the challenges PG&E faces regarding the topic.
- **Section 2 – Wildfire Emergency Management Framework –** provides information about the "*tools*" in the Emergency Manager's "*toolbox*" to help be more efficient and effective.
- **Section 3 – Coordination with External Partners –** provides information about PG&E's actions with Federal, State, Tribes, Local, Industry, and other partners.
- **Section 4 – Concept of Operations –** provides information about PG&E's actions taken to "*prepare for*", "*mitigate against*", "*respond to*", and "*recover from*" wildfire incidents.
- **Section 5 – Training and Exercises –** provides information about PG&E's emergency training programs.
- **Section 6 – After-Action Reports**
- **Section 7 – Appendices –** a collection of appendices:
  - Appendix A, Acronyms and Glossary
  - Appendix B, Fires Season Outdoor Work Fire Mitigation

2 Wildfire Emergency Management Framework

2.1 Wildfire Information Sources

2.1.1 Levels of Emergency

PG&E has established a five-level incident classification system to identify each incident's scale and complexity and ensure necessary resource allocation. This ensures a consistent and well-coordinated emergency response. Table 2-1 provides an overview of the incident levels pertaining to wildfires.

Table 2-1: PG&E Incident Classification Levels[1]

Level	Type	Description
5	***Catastrophic***	• Large area of the service territory affected, or multiple wildfires • Affect many customers and business operations • Extended multiple emergencies • Significant cost and infrastructure risk/damage • Full mobilization of resources • Heavy media interest; actual reputational risk
4	***Severe***	• Resources from multiple regions are needed to fight the wildfire • Affects many customers • Extended multiple incidents • Escalating company impact • Resources may be shared between regions, including contractors and mutual aid • Heavy media interest; potential reputational risk
3	***Serious***	• An extended attack has been initiated by firefighting resources • Involves large number of customers • Resources may need to move between regions • Increased negative media attention
2	***Elevated***	• A wildfire (of even minimal size) • Requires more than routine operations • Resources may be required to move within the region • Increased media interest
1	***Routine***	• Fire is contained to a small area, such as a structure fire • Involves a relatively small number of customers • Local resources are sufficient to manage operations • Little-to-no media coverage

[1] For OEC Activation criteria and financial considerations, refer to EMER-4510S: OEC Activation Requirements, and Attachment 1: Major Emergency Balancing Account Criteria

2.1.2 Fire Potential Index

The PG&E Fire Potential Index (FPI) is a forecast of fire danger expected within the PG&E service territory. With guidance from fire experts from San Diego Gas and Electric, the United States Forest Service (USFS), and San Jose State University's Fire Weather Research Lab, PG&E developed the FPI. The central purpose in the development of the new FPI was to create a system that could be optimized to forecast and track fire danger in real-time.

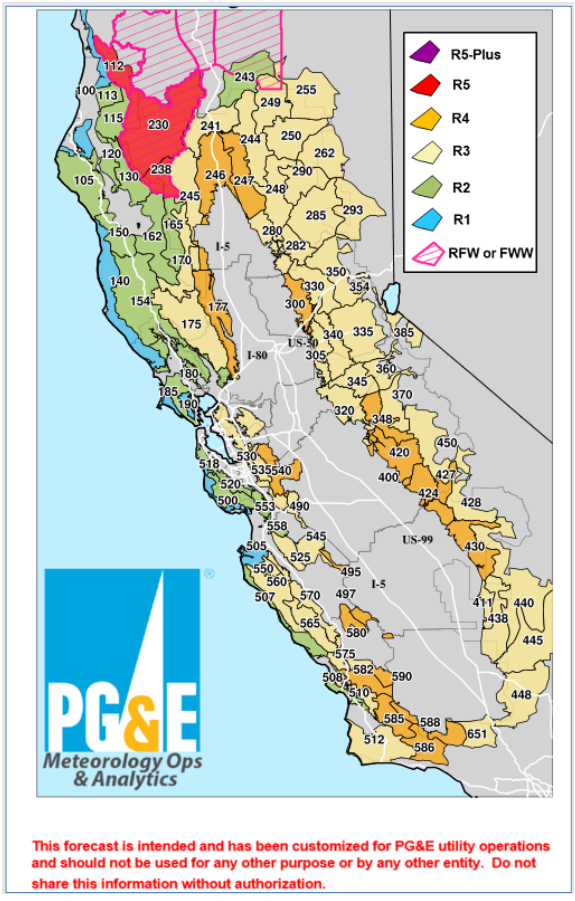
The FPI combines fire weather data (temperature, humidity, and wind), live and dead fuel moisture values, topography, and fuel model type mapping to rank fire danger on a floating-point scale from R1 to R5-Plus, allowing for a more detailed determination of fire danger at the extreme end of the fire danger scale. Table 2-2 represents Fire Danger ranges.

Table 2-2: FPI Ratings Scale

Current Scale
R5-Plus
R5
R4
R3
R2
R1

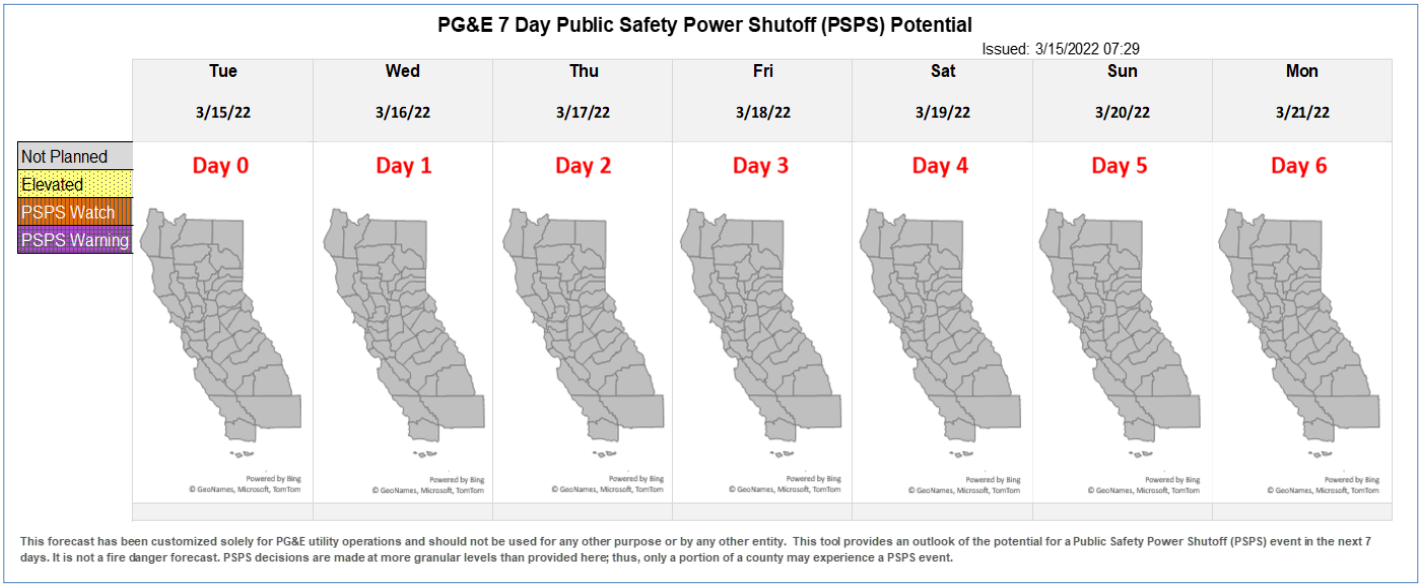
The FPI is applied to 91 static geographic areas called Fire Index Areas (FIA). This information is updated and shared daily on the Company Intranet at the Fire Potential Index website and disseminated through emails to members on the fire index distribution list. See Figure 2-1 for an example FPI map that is delivered through email daily.

Figure 2-1: Fire Potential Index Map



PG&E provides PSPS forecasting data (Figure 2-2), which is updated approximately every 24 hours, 365 days per year. The forecast is generated by analyzing weather conditions and other factors to determine the FPI for the nine PG&E designated zones on the CPUC High Fire Threat District map (section 0). This data presents a snapshot of the seven-day PSPS Potential within the higher wildfire risk areas in PG&E's service territory.

Figure 2-2: PG&E 7 Day Public Safety Power Shutoff Potential



PG&E PSPS Potential Key:

PSPS – If weather forecasts indicate an increased risk of wind-related damage to overhead electric lines combined with dry vegetation susceptible to fire ignition and spread, it may be necessary for PG&E to turn off the electricity serving that area. This is called a Public Safety Power Shutoff (PSPS).

Not Expected – Conditions that generally warrant a PSPS event are not expected at this time.

Elevated – An upcoming event (typically a period of adverse weather combined with dry fuels) is being monitored for an increased potential of a PSPS event.

PSPS Watch – The company EOC is activated for a reasonable chance of executing PSPS to reduce public safety risk in each geographic zone due to a combination of adverse weather and dry fuel conditions. A PSPS watch is typically only issued within 72 hours before the anticipated start of an event.

PSPS Warning – The company EOC is activated and customers in areas being considered for PSPS have been or are being notified. This level indicates execution of PSPS is probable given the latest forecast of weather and fuels and/or observed conditions. PSPS is typically executed in smaller and more targeted areas than the PG&E Geographic Zones. This level does not guarantee a PSPS execution as conditions and forecasts may change.

2.1.3 High Fire Threat District Map

In 2023, the CPUC adopted the High Fire-Threat District (HFTD) map (Figure 2-3) and distinctions/definitions (Table 2-3).

The HFTD map designates three types of fire threat areas:

- Zone 1 – High hazard zone, associated with tree mortality
- Tier 2 – Elevated risk
- Tier 3 – Extreme risk

Tier 2 and Tier 3 represent the most significant zones "*at-risk*" to wildfires in proximity to communities. All of PG&E's 91 FIAs are included in Tier 2 and Tier 3 areas, as designated by the CPUC HFTD map shown below.

Figure 2-3: High Fire Threat District Map

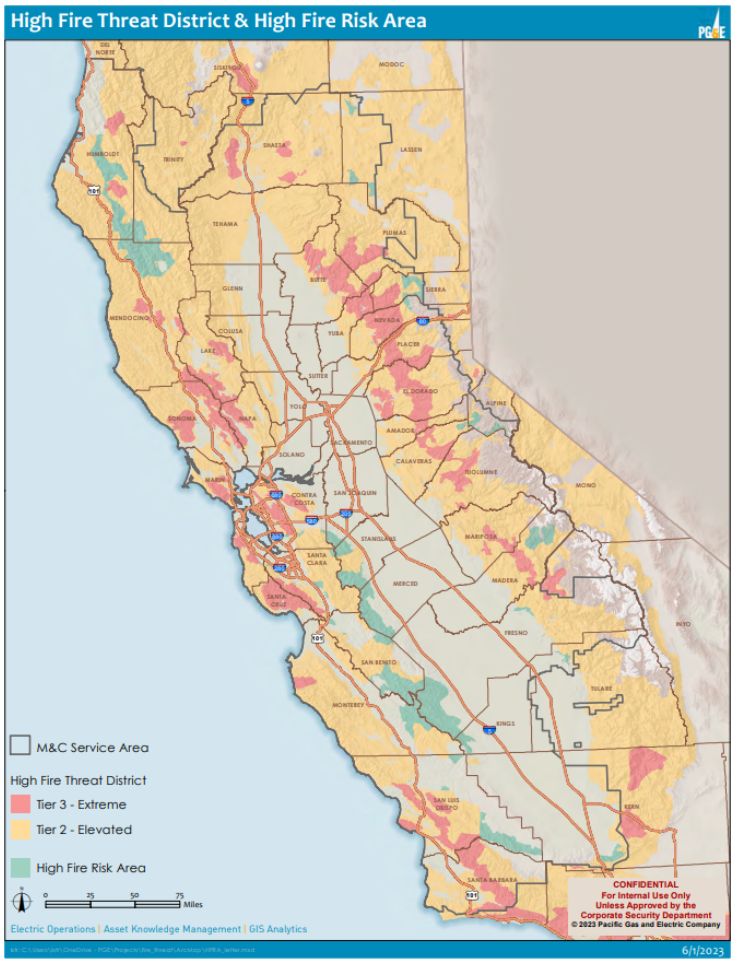


Table 2-3: High Fire Threat District Definitions

Tier Level	Definition	Distinctions
HFTD Tier 3 – Extreme Risk	Extreme risk (including likelihood and potential impacts of occurrence) for utility associated wildfires.	Tier 3 is distinguished from Tier 2 by having highest likelihood of fire initiation and growth that would impact people or property from utility-associated fires, and where the most restrictive utility regulations are necessary to reduce utility-fire risk.
HFTD Tier 2 – Elevated Risk	Elevated risk (including likelihood and potential impacts of occurrence) for utility associated wildfires.	Tier 2 is distinguished from Zone 1 and other areas outside the HFTD by having greater likelihood of fire initiation and growth that would impact people or property, from utility-associated wildfires, and where enhanced utility regulation could be expected to reduce utility-fire risk.
HFTD Zone 1 – High Hazard Zones	High Hazard Zone (HHZ) on the USFS-CAL FIRE joint map of Tree Mortality HHZs, excluding areas in Tier 3 or Tier 2. These are areas where tree mortality directly coincides with critical infrastructure. They represent direct threats.	Zone 1 is defined as a Tree Mortality HHZ (as determined by California's Tree Mortality Task Force), a subset of Tier 1 of the CPUC HFTD Map. Zone 1 excludes areas in the Elevated Risk of Tier Level 2, and the Extreme Risk of Tier Level 3 risk areas but is included in the HFTD due to specific hazards to utilities. Tree mortality areas are identified by the USFS, CAL FIRE, and other state and regulatory agencies as determined by published district maps and are subject to updates.

2.1.4 High Fire Risk Areas

To inform the scope of PSPS events, PG&E has performed, and continues to perform, a fire risk assessment of its service territory focused on identifying areas where an ignition during an offshore wind event could lead to a catastrophic wildfire. The culmination of this assessment is referred to as PG&E's High Fire Risk Area (HFRA) map. The HFRA map serves as an initial filter in the PSPS scoping process, upon which additional event-specific spatial information is overlaid and analyzed to arrive at final PSPS scope. The HFRA map may be used for other purposes as well, such as informing workplans and risk assessment.

PG&E began development of its HFRA map in 2020, by using the Tier 2 and Tier 3 portions of the CPUC's HFTD map as a starting point and adding areas where we believe an ignition, during an offshore wind event, could lead to a catastrophic wildfire. At the end of 2020, PG&E's HFRA map included all areas included in the Tier 2 and Tier 3 portions of the CPUC's HFTD map, as well as PG&E's additions. In 2021, PG&E continued to develop its HFRA map. This was done by removing areas from the HFRA map where we concluded that an ignition during an offshore wind event either would not occur or otherwise would not lead to a catastrophic wildfire. In 2024, PG&E continues to mature its integration of expert- and analytics-based wildfire risk assessment tools to assess its service territory and adjust the boundaries of the HFRA to accurately and precisely reflect the distribution of catastrophic wildfire risk associated with ignitions during offshore wind events.

2.1.5 Fire Index Areas

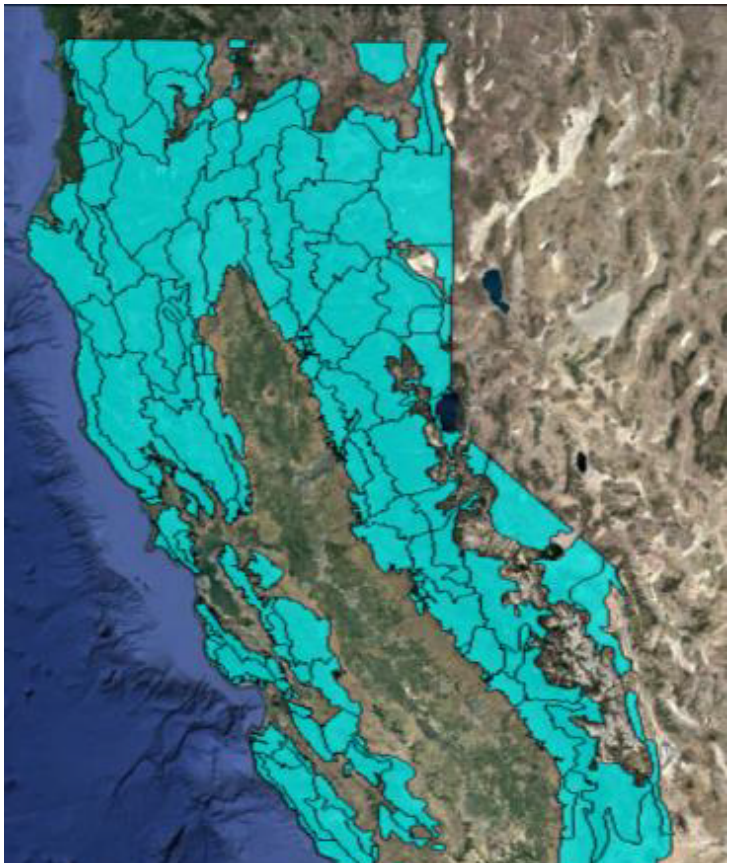
PG&E updated its Fire Index Areas (FIAs) to align with the new High Fire Risk Area (HFRA) map additions. The adjusted FIAs cover the entirety of the CPUC High Fire Threat District (HFTD) Tier 2 and Tier 3 areas as well as the HFRA additions. Requirements for the newly added areas are consistent with the operational practices of the updated Fire Index Areas under the requirements of EMER-4102S Preventing and Mitigating Fires While Performing PG&E Work.

The HFRA is built around the CPUC HFTD map (Figure 2-4) to further capture areas outside of the HFTD Tiers 2 and 3 which have the potential for catastrophic wildfire events, thereby ensuring wildfire mitigation actions (such as Public Safety Power Shutoffs (PSPS) are considered in these areas.

Access to updated FIA boundaries is available in PG&E's Google Earth Data Tools Suite as well as MapGuide. To access the Google Earth Layer, select **PG&E Data Tools** > **Fire Related Areas** > Check the box next to **Fire Index Areas** > **Add Selected Layers**. Additionally, the updated FIAs and HFRA layers can be found in Electric Transmission Geographic Information System (ETGIS) and Electric Distribution Geographic Information System (EDGIS) viewers.

Fire mitigation actions (e.g., disabling automatic reclosers) outlined in EMER-4102S will apply within the new FIA boundaries to capture the HFRA additions. Any areas in the HFTD and HFRA are subject to automatic recloser disablement.

Figure 2-4: High Fire Risk Area

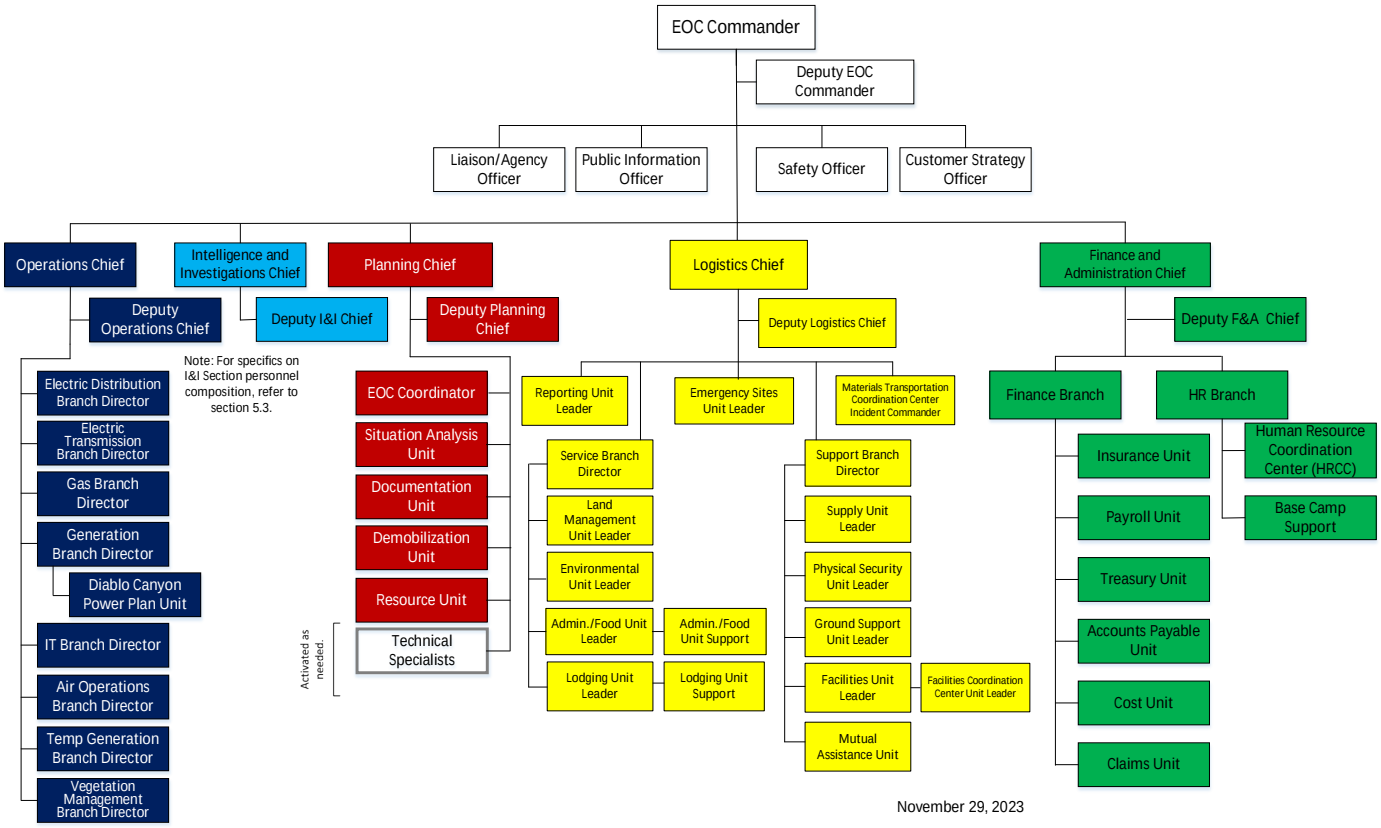


2.2 EOC and Field Personnel

2.2.1 PG&E Emergency Operations Center

The EOC is located at [redacted], California. When activated, the Company Emergency Operations Center provides overall command, control, and coordination in response to incidents requiring an EOC activation. The organizational structure is scalable and can be tailored to the unique requirements of wildfire incidents. The organizational chart can be found in Figure 2-5.

Figure 2-5: Emergency Operations Center Organizational Chart



2.2.2 PG&E Operations Organizational Teams and Crews

PG&E employs a variety of highly specialized teams and work crews to respond to wildfire incidents. The determination of which of these teams and crews are utilized is based on several factors—including geographical and functional abilities. Nearly every discipline described below is comprised of several capability-based teams located throughout PG&E's 70,000-square mile service territory. The following sections include a summary of the teams and crews most frequently used in wildfire incidents.

2.2.2.1 Incident Management Teams

An Incident Management Team (IMT) is comprised of an Emergency Operations Center Commander, or an IC or Field Incident Commander, and the Command and General Staff personnel assigned to an incident. The IMTs, when deployed, have direct authority to plan

and execute a response. Refer to EMER-4501S, *Framework for Electric Incident Management Teams Standard,* which provides the framework and guidelines for PG&E's all hazard pre-identified IMT structure.

Refer to *CERP* section 2.8 for more information.

2.2.2.2 Safety and Infrastructure Protection Teams

Safety and Infrastructure Protection Teams (SIPT) are wildfire mitigation teams that have been established to protect PG&E facilities in high fire-risk areas.

As a component of wildfire safety efforts and consistent with the requirements of Senate Bill 901, PG&E employs Safety and Infrastructure Protection teams to provide additional personnel and resources to assist field crews and protect critical utility infrastructure in our service territory, particularly within areas at a higher risk of wildfire.

During wildfires or other emergencies, SIPT activities will be coordinated with the Authority Having Jurisdiction (AHJ) and the PG&E Incident Commander (IC) and will follow guidelines established for private fire prevention resources as required under AB 2380. While these teams will not engage in active wildfires *without authorization*, they help in suppressing any potential ignition at the worksite when protecting PG&E crews and assets**.** When first responders arrive on the scene, SIPT will follow the ICS by the responding agency.

For additional details on both typical work and emergency activities performed by SIPTs, refer to *CERP* section 3.1.2

2.2.2.3 Public Safety Specialists

The Public Safety Specialists (PSS) provide support in several ways:

- Provide public outreach and presentations supporting Community Wildfire Safety Program.
- Monitor, support, respond, and report on fire activity in PG&E's service territory.
- Support gas and electric regulatory compliance outreach with public safety partners.
- Provide Public Outreach and First Responder workshops to public safety agencies.
- Provide outreach and emergency preparedness with public safety agencies.
- Support debris removal in coordination with local authorities.

During a wildfire or PSPS Event, the specialists do the following:

- Respond to the wildfire(s) and function as PG&E's agency representatives during the incident reporting directly to the IMT Incident Commander or OEC Commander.
- Work with public safety agencies and other PG&E FAs, ensuring information flow and preparation.
- Serve as agency representatives with county OES partners.

These specialists provide 24 hours a day, seven days a week coverage of PG&E's service territory. Each PSS is responsible for a geographical region, reporting through supervisors to the Emergency Preparedness & Response organization.

During wildfires, these specialists report to the AHJ Liaison, coordinate repair and restoration work, and PG&E SIPT to protect PG&E facilities in high fire-risk areas, including wildfire response. They act as a single point of contact between the AHJ and the PG&E Incident Commander.

2.2.2.4 Emergency Operations Center Teams

The EOC teams are comprised of Command and General staff trained to work in support of the EOC during an incident. EOC team members come from many FAs and perform this duty aside from their routine job functions. They receive extensive additional training to perform their role in the EOC.

For additional information regarding EOC teams, refer to the *CERP* (EMER-3001M), section 5.

2.2.2.5 Vegetation Management Field Operations (Crews)

Vegetation crews remove immediate hazard and life safety trees from the right-of-way and support work crews to assess, make safe, and restore. The Vegetation Management branch director (VMBD) is typically responsible for activating and filling the Wood Management role with a representative. Currently, Wood Management is a functional group assigned to the VMBD and provides coordination or assistance in debris removal when applicable.

2.2.2.6 Make Safe and 9-1-1 Standby (Crews)

For situations where hazardous conditions (*e.g.*, wire down and cut in the clear) have been identified and prompt attention is required, field crews must coordinate Make Safe assessment and restoration operations with the Incident Commander (IC)/Agency Having Jurisdiction (AHJ) utilizing the Public Safety Specialist. For additional details on Make Safe Operations, refer to the Make Safe section 3.2.3.8 in the *Electric Annex* (EMER-3002M).

PG&E deploys 911 Standby personnel to relieve public safety agency personnel until qualified gas or electric resources are available to assess and repair our facilities.

For additional details, refer to section 3.2.3.7, 911 Standby Call Response in the *Electric Annex* (EMER-3002M).

2.2.2.7 Gas Field Operations (Crews)

Gas Field Operations is comprised of several groups, including Gas Pipeline Operations and Maintenance (GPOM), Gas Construction Crews, and Maintenance and Construction (M&C), working together in emergency response.

For more information on specific crew functions, refer to section 2.2.2 in the *Gas Emergency Response Plan (GERP)* (EMER-3003M).

2.2.2.8 Electric Field Operations (Crews)

Electric Operations engages in several pre-event and response actions for wildfire incidents. For situations involving Electric Distribution Operations pre-event preparedness activities and response to wildfires, refer to the Electric Distribution Emergency Roles and Responsibilities section 2.2 in the *Electric Annex* (EMER-3002M).

2.2.3 PG&E Control Centers

Control centers monitor daily operations and manage unexpected disruptions. During wildfires, control centers perform essential emergency activities to safeguard the public, system, and first responders.

2.2.3.1 Gas Control Center

The Gas Control Center (GCC) primary facility is located within the Gas Operations Center on the [redacted], CA. The GCC is responsible for the overall operation of the PG&E gas system (transmission and distribution inclusively), and closely monitors and coordinates incident notifications, dispatching, system isolations, and restorations. The GCC manages initial incident coordination for gas transmission and distribution emergencies. Refer to section 2.1.1.2 in the *Gas Emergency Response Plan (GERP)* (EMER-3003M) for additional details on how the GCC responds to emergencies.

2.2.3.2 Electric Distribution Control Centers

Personnel operating out of PG&E's three Distribution Control Centers (DCCs)—one in the North, one in Central, and one in the South—monitor and manage the real-time operation of the electric distribution grid, including both planned and emergency outages. If an outage occurs or the system needs to be made safe, the Distribution Operator personnel in the DCC directs field-level coworkers to restore or de-energize circuits to reconfigure or re-energize the distribution grid and to perform step restoration.

2.2.3.3 Electric Transmission Grid Control Center

[redacted] serves as the primary control center and the [redacted]) is the backup facility for Electric Transmission. Both facilities are operated 24 hours a day, seven days a week and in parallel to manage the Bulk Electric System (BES) based on current system configurations and conditions.

Operations supervisors maintain situational awareness of the BES. System dispatchers perform real-time monitoring and coordinate with external entities including being the single point of contact for the CAISO. These personnel activate and support the Electric Transmission Emergency Center (ETEC) under the direction of the ETEC lead during emergency situations such as wildfire events.

2.2.4 Emergency Centers

During significant incidents, PG&E may activate several emergency centers to support response activities. Emergency centers facilitate the following:

- Unity of effort and teamwork in common workspace

- Information sharing, including legal policy guidance to on-scene personnel and planning for contingencies
- Coordination, deployment, allocation, and tracking of resources
- System-wide objectives and strategies
- Effective internal and external communication

Emergency centers can include, but are not limited to, the OEC, REC, and EOC.

2.2.5 Emergency Field Sites

One or more emergency field sites, including base camps, micro sites, landing zones, materials laydown yards, rally safety points, staging areas, and Community Resource Centers (CRCs) may be necessary to support field operations in a wildfire incident. Refer to the *Logistics Annex* (EMER-3005M) for more information on the definitions and capabilities of the above emergency field sites.

To request an emergency field site, visit the Emergency Site Request portal and submit a request form link. MCV - Emergency Sites (pge.com) requests for landing zones, materials laydown yards, rally safety points, and staging areas only require field Incident Commander approval, while base camps and micro sites require an additional level of approval from an EOC Commander or their delegate. CRCs are requested and approved by EOC customer strategy officer.

3 Coordination with External Partners

The Coordination with External Partners section covers the coordination efforts with external partners during the Response and Recovery Phases. Day-to-day coordination efforts done during the Preparedness and Mitigation Phases are captured in other FA plans, procedures, policies, and programs.

3.1 Local and Regional Partners

PG&E's local and regional partners provide support to residents and protect locally owned facilities and properties.

3.1.1 Overview

Most local and regional partners are made up of city and county government. City and county government have a lead agency or department responsible for coordinating response to major disasters. Under the State of California Emergency Services Act, each of the 58 counties in the State of California is designated as an Operational Area (OA). The OA may open its Emergency Operations Center (EOC) where it will provide support and coordinate all county, city and special district departments and agencies during a disaster response. Each OA exchanges information and coordinates with the Regional Emergency Operation Center (REOC) and/or State Operations Center (SOC). During certain incidents, cities may open their EOC. The city EOC traditionally coordinates all city-level departments and agencies, including coordinating and exchanging information with the OA.

3.1.2 Coordination

During emergency incidents, the PG&E's Liaison Officer manages reporting relationships between PG&E and its local and regional partners. However, other departments may have individual reporting responsibilities depending on the type of incident. During major disasters that impact the electric grid, PG&E may also work with representatives from boards, councils, special districts, and community leaders. Table 3-1 identifies the local and regional partners PG&E will coordinate with during a wildfire event.

Table 3-1: Regional and Local Coordination Efforts

Agency	Responsibilities	PG&E Coordinating Entity
Local Fire Department and Volunteer Fire Departments Local OES/Sheriff's Department	• Provide emergency medical services, fire suppression, hazardous materials response, and urban search and rescue, as needed within the local jurisdiction. • Provide municipal level emergency management services.	Public Safety Specialists (PSS) and Liaison Officer
Local Law Enforcement (Non-OES Related)	• Coordinate and monitor law enforcement activities. • Provide traffic control. • Conduct investigations.	Corporate Security PSS

Agency	Responsibilities	PG&E Coordinating Entity
Operational Area (OA) Level of Government	An OA is the intermediate level of the state's emergency management organization which encompasses a county's boundaries and all political subdivisions located within county, city, and/or special districts. Responsibilities include: • Facilitate and/or coordinate information, resources, and decisions regarding priorities among local governments and the OA. • Serve as the coordination and communication link between the local government and regional levels of government. • Activate the OS EOC and emergency operations plans, as needed. • Maintain situational awareness within the OA by verifying and aggregating local government situation assessments, discipline—specific status updates, and data from sources outside the OA. • Request resources through mutual aid and the state, as needed.	Operational Emergency Center, Liaison Officer, PSS, Local Government Affairs (LGA) Representative assigned to the respective County
Local Office of Emergency Services (OES)	The local government level includes elected officials, cities, counties, and special districts including tribal lands. They are responsible for the following: • Manage and coordinate emergency response and recovery activities within their jurisdiction. • Activate the local government EOC and emergency plans, as needed. • Request resources through mutual aid and the Operational Area as needed.	PSS/Liaison Officer; Local Government Affairs (LGA) Representative assigned to the respective County

If the size and/or duration of the wildfire starts to impact Gas Operations, additional local and regional coordination may be necessary. For more details about these coordination efforts, please refer to the *Gas Emergency Response Plan (GERP)* (EMER-3003M).

3.2 Tribal Governments

3.2.1 Overview

The Tribal Liaison Team manages the relationships between PG&E and the 62 federally recognized tribal governments, 40 non-federally recognized governments and 21 tribal health facilities. The team, consisting of a Tribal Liaison and Assistant Tribal Liaison, responds to and provides support to all FA for all-hazard emergency incidents of any level. Responsibilities are service area wide.

The team coordinates directly with state and federal agencies to identify and address tribal needs or concerns during emergency operations. In addition, the team conducts post-event reviews and follow ups.

3.2.2 Coordination

The team coordinates during wildfire response as follows:

- Provide notifications to tribal governments and communities of PG&E actions or operations associated with response to the emergency.
- Operate as field representatives if asked to provide in the field communication directly into the EOC/OEC.
- Relay Tribal Government needs, concerns, or issues directly into the EOC.
- Coordinate with PG&E FA that are looking to contact tribal governments.
- Provide ongoing updates and information to the CPUC and CAL OES.
- Facilitate tribal government phone calls hosted by PG&E or by outside agencies.
- Track tribal specific actions as they are adopted and report back to tribes on their progress.

The team provides additional post-activities given below:

- Close out notifications to tribal governments, communities, and feedback opportunities to tribal governments on effectiveness of PG&E outreach and actions during emergency response.
- Maintain communication with tribal governments and coordinating meetings as needed during the clean-up and recovery operations post emergency event.
- Coordinate between PG&E FA and state/federal agencies as requested by tribal governments and communities.
- Assist tribes with post-event data requests for grant application support, tracking tribal specific actions as they are adopted, and reporting back to tribes on their progress.

3.3 State Partners

Various state agency partners provide response and recovery support to local government, as, well as, respond to and restore state-owned facilities and properties.

3.3.1 Overview

The California Office of Emergency Services (Cal OES) leads the state government's response to major disasters. Based on local government needs, Cal OES will coordinate all state departments and agency responsibilities under the disaster response. Cal OES uses the Standardized Emergency Management System (SEMS) to ensure that all aspects of the disaster are being managed.

During a catastrophic disaster, Cal OES will establish a federal-state Joint Field Office (JFO) with the Federal Emergency Management Agency (FEMA) and open the State Operations Center (SOC). FEMA and Cal OES have established Emergency Support Functions (ESFs). ESFs are a way to organize response support to states and locals. The ESFs will report and coordinate out of the JFO.

To better assist the state and local response to and recovery from utility system-related incidents, Cal OES has established the Utilities Operations Center (UOC). The UOC may be established at the JFO or the SOC and will function as part of ESF 12 – *Energy*. The role of the UOC is to align efforts with different levels of government and the independent utility companies. Each major California utility, including PG&E, has an agency representative in the UOC. During incidents, they work together to address impacts, exchange information, and coordinate recovery. Coordination and communication between the independent utilities and special district partners also takes place at the UOC.

3.3.2 Coordination

During emergency incidents, the regulatory reporting relationships between PG&E and its state partners is centrally managed by PG&E's Liaison Officer and Legal departments. However, other departments may have individual reporting responsibilities to other state agencies, depending on the type of the incident.

During major disasters impacting the electric grid, PG&E may also be working with political representatives from the State Assembly, the State Senate, the officer of the governor and other state agencies. Most of the coordination is extended from the EOC by the Liaison Officer, via the Federal and State Government Affairs staff and the local Government Affairs representatives. Table 3-2 identifies the state partners PG&E will coordinate with during a wildfire event.

Table 3-2: State Level Coordination

Agency	Role	PG&E Coordinating Entity
California Department of Forestry and Fire Protection (CAL FIRE)	• Provide fire protection services and emergency fire personnel and equipment for over 31 million acres of privately-owned wildlands. • Provide various emergency services in 36 of California's 58 counties. • Provide trained personnel and teams, vehicles, and aircraft (fixed and rotor wing) for patrol, search, and rescue.	EOC Liaison
California Department of Transportation (Caltrans)	• Support firefighting efforts through lane closures; prepares road information and displays. • Assess damage to highway systems and establish route priorities during recovery efforts. • Restore highway and other transportation facilities under the department's jurisdiction. • Help contractors with contraction-related equipment for use in emergency situations.	EOC Liaison

Agency	Role	PG&E Coordinating Entity
California Highway Patrol (CHP)	• Support traffic control.	EOC Liaison
California Energy Commission (CEC)	• Serve as the State of California's primary energy and planning agency and is responsible for the licensing of all thermal power plants over 50 MW. • Advance energy science and technology through research and development; provides market support for renewable technologies; forecasts future energy needs.	EOC Liaison Electric Operations
California Independent System Operator (CAISO)	CAISO is the largest of about 40 balancing authorities in the western interconnection. CAISO: • Manage real-time transmission operations, matches generation with load maintains the electric frequency of the grid. • Direct continuous contact with Vacaville Grid Control Center.	EOC Liaison Electric Operations VGCC
California Office of Emergency Services (OES)	• Prioritize tasks and coordinated state resources in response to requests from the Regional Emergency Operations Center (REOC). • Coordinate mutual aid among the mutual aid regions and between the regional and state level. • Serve as a coordination and communication link between the state and federal emergency response system. • Activate and operates out of the State Operations Center (SOC), as needed.	EOC Liaison SOC Agency Representative VP EP&R Director EP&R S&E
Division of Occupational Safety and Health of California (commonly known as CAL/OSHA)	• Enforce California laws and regulations pertaining to workplace safety and health.	EOC Liaison
California Public Utilities Commission (CPUC)	• Regulate investor-owned electric and natural gas utilities operating in California.	EOC Liaison Legal

If the size and/or duration of the wildfire starts to impact Gas operations, additional state coordination may be necessary. For more details about these coordination efforts, please refer to the *CERP* (EMER-3001M) in the Guidance Document Library.

3.4 Federal Partners

Federal partners provide coordination, support and, where appropriate, augment state and local authorities in their response efforts.

3.4.1 Overview

The federal government is usually the primary partner, but there are other entities that have national-level responsibilities, such as the North American Electric Reliability Corporation (NERC). Department of Homeland Security's Federal Emergency Management Agency (DHS-FEMA) leads the federal government's response to major domestic disasters. At the request of the State of California, FEMA coordinates a Regional Response Coordination Center (RRCC) for all federal departments and agencies' responsibilities during a disaster response. FEMA's authority during Presidential Disaster Declarations (PDD) is established by the Robert T. Stafford Act and implementing regulations are provided by the Code of Federal Regulation, Title 44.

As part of its effort to develop a comprehensive approach to emergency management, DHS has created the National Response Framework (NRF). The NRF lays out authorities and best practices from across the nation on managing incidents. The NRF integrates the National Incident Management System (NIMS), which references the Incident Command System (ICS). ICS establishes a management structure to ensure all aspects of the disaster are being handled.

3.4.2 Coordination

During emergency incidents, the regulatory reporting relationships between PG&E and its federal partners are centrally managed by PG&E's Liaison Officer and Legal departments. However, other departments may have individual reporting responsibilities to other federal agencies depending on the type of incident.

During major disasters that impact the electric grid, PG&E may also be working with representatives from the US House of Representatives, the Senate, the office of the President, and other federal agencies. While most of this coordination will be extended from the EOC by the Liaison Officer, there may be instances where coordination is happening at other levels also depending on the type of incident. Table 3-3 identifies the federal partners PG&E may coordinate with during a wildfire event.

Table 3-3: Federal Level Coordination

Agency	Responsibilities	PG&E Coordinating Entity
United States Forest Service (USFS)	• Manage wildland fires on National Forests and grasslands. • Sustain the health, diversity and productivity of the nation's forests and grasslands.	PSS, LGA and EOC Liaison
United States Department of the Interior (NPS, BLM, USFWS, BIA)	• Manage wildland fires on National Parks Service (NPS), Bureau of Land Management (BLM), National Wildlife Refuges (USFWS), and Bureau of Indian Affairs (BIA) supporting Tribal lands. • Conserve natural and cultural resources including forest, shrub, and grasslands.	PSS/LGA and EOC Liaison

Agency	Responsibilities	PG&E Coordinating Entity
Department of Energy (DOE)	Office of Cybersecurity, Energy Security, and Emergency Response: • Facilitate coordination across government and with energy sector to enhance response and recovery efforts while coordinating federal capabilities to mitigate impact of energy disruptions.	Federal Affairs
Federal Emergency Regulatory Commission (FERC)	• Regulate the interstate transmission of natural gas, oil, and electricity, as well as natural gas and hydropower projects.	EOC Liaison Electric Operations
Federal Emergency Management Agency (FEMA)	• Prepare, prevent, and mitigate the effects of responding to, and recovering from domestic disasters, whether natural or human-made.	EOC Liaison EP&R
North American Electric Reliability Corporation (NERC)	• Assure the effective and efficient reduction of risks to the reliability and security of the electric grid. • Develop and enforce reliability standards; assesses reliability; monitors the bulk power system; and educates, trains, and certifies industry personnel.	EOC Liaison Electric Operations
Nuclear Regulatory Commission (NRC)	• License and regulate the nation's civilian use of radioactive material; including nuclear reactors, material, and waste.	EOC Nuclear Liaison
Occupational Safety and Health of California (OSHA)	• Set and enforce federal standards pertaining to workplace safety and health.	EOC Liaison
Western Electricity Coordinating Council (WECC)	The Western Interconnection (a wide area synchronous grid and one of the two major alternating current power transmission grids in the continental U.S.) • Serve a population of over 80 million and spans more than 1.8 million square miles in all or part of 14 states, the Canadian provinces of British Columbia and Alberta, and the northern portion of Baja California in Mexico.	EOC Liaison

Additional coordination is required with agencies such as include the Department of Transportation (DOT) and the National Transportation Safety Board if a wildfire incident expands to such extent that Gas Operations are affected. For more details about these coordination efforts, refer to the *GERP* or Diablo Canyon Power Plant Emergency Planning documents.

3.5 Media

Media outlets provide vital information to listening and viewing audiences (e.g., citizens and customers). Media in PG&E's service territory generally use traditional media platforms (newspaper, radio, television) to disseminate and convey information, but they also provide information through social media platforms, (e.g., Twitter, Facebook, LinkedIn, and Instagram). Many government agencies and companies utilize and maintain social media platforms and can push messages directly out to "followers" as well. Information that PG&E provides to these varied sources will come from the EOC but could also come from a Joint Information System (JIS) if there are multiple agencies and companies involved.

3.6 Customer Outreach

During significant wildfire events, PG&E will reach out to impacted customers to keep them informed of the status of their utilities, actions being taken by PG&E, and potential actions customers can take to reduce their risk. The general focus of these messages is on safety and the estimated time to restoration of their electric and/or gas services. During this outreach, PG&E uses a variety of platforms (e.g., direct calls, traditional media, social media) to reach PG&E customers. In some rare instances (particularly for Medical Baseline customers), door-to-door outreach is utilized to directly ensure the safety of the most vulnerable citizens.

4 Concept of Operations

Many experts in the emergency management industry organize their programs around the Disaster Management Cycle: Preparedness, Mitigation, Response, and Recovery.

PG&E has adopted the Disaster Management Cycle concept to ensure that the company is adequately addressing the risk and potential impacts resulting from a variety of emergent incidents, including wildfires. Understanding activities within each phase of the Disaster Management Cycle helps coworkers and key stakeholders understand the comprehensive approach being taken to address wildfire risk.

The following sections provide an overview of the actions and strategies under each of the Disaster Management Cycle phases.

4.1 Situational Awareness

Many of the actions and strategies taken under Situational Awareness are implemented by PG&E FAs during normal, day-to-day operations and are focused on safety and reliability. Types of actions under this phase include, but are not limited to:

- Identify and maintain key assets, functions, and processes.
- Maintain a resource portfolio of staff and materials.
- Perform incident damage prediction modeling (e.g., earthquake, flood, wildfire, and cybersecurity Incidents).
- Monitor, detect, and protect systems and facilities.
- Plan and perform training and exercises

Additional details about activities taken for the above actions can be found in the *Wildfire Mitigation Plan*, and/or FA standard operating procedures.

4.1.1 Asset Management

PG&E's Electric Asset Management objectives are as follows:

- Know the condition of the assets.
- Understand the risks to those assets.
- Implement asset risk reduction strategies.
- Maintain asset condition and performance.
- Balance asset risk, performance, and cost in pursuit of PG&E's strategic objectives.

The Electric Operations Asset Management system is described in the *Electric Strategic Asset Management Plan* (TD-8100), which has established nine asset families. Each Asset Family has established an Asset Management Plan. The primary asset management plans related to wildfire include transmission line overhead, substation, and distribution line overhead.

4.1.2 Hazard Modeling

Work conducted under this action includes developing, maintaining, and leveraging models that help predict where the hazard may occur (hazard footprint) and the potential extent of damage from the hazard (estimating loss). Some of the models that are contained in the Wildfire Mitigation Plan include:

- Storm Outage Prediction Models
- Debris Flow Modeling
- Fire Spread Modeling
- Fire Weather Modeling

4.1.3 Wildfire Prevention

PG&E's compliance and maintenance programs all strive to contribute to wildfire prevention, through the planning and safe execution of work activities. PG&E annually reviews and updates its Wildfire Mitigation Plan (WMP) to define its most targeted wildfire prevention programs. All field operations within PG&E must conform to Utility Standard EMER-4102S, *Preventing and Mitigating Fires While Performing PG&E Work*. This guidance document outlines and establishes requirements for situational awareness for all personnel to follow while traveling to, performing work, or operating outdoors in any forest, brush, or grass-covered land.

Among the requirements are minimum equipment standards, which include basic fire prevention and extinguishment tools such as shovels, backpack-style water pumps, fire extinguishers, and chainsaws. Work crews are also required to observe basic fire safety practices which include the prevention of fire ignition due to vehicle exhaust, sparks, embers, and the removal of flammable material from work sites prior to beginning operations. The requirements for dedicated Fire Watch personnel are outlined based on the daily Fire Potential Index, which ranges from R1-R5+.

PG&E works cooperatively with each firefighting agency with direct protection authority within its service territory, including CAL FIRE, BLM, NPS, and USFS and local agencies. This includes sharing of information and resources, granting access to facilities, and in some instances, performing additional preventive measures to limit the risks in advance and during response to wildfire regardless of cause or origin.

4.1.4 Hazard Awareness and Warning Center

The Hazard Awareness and Warning Center (HAWC) is PG&E's centralized operations center set up to detect, assess, mitigate, communicate, and respond to wildfire threats.

The HAWC is staffed 24 hours a day, seven days a week with the capability to temporarily increase staffing levels if conditions warrant. The HAWC analysts monitor the territory for wildfires using an array of resources and technology. Additionally, the HAWC partners with PG&E's public safety specialists engaging emergency responders at the local level and Safety Infrastructure Protection Teams (SIPT) mitigating the risk of fire on work site.

The HAWC is responsible for the following:

- Monitor potential fire threats and ignitions across PG&E's service area.
- Analyze real-time information to maintain situational awareness of potential fire threats and ignitions across PG&E's service area and effective reporting to key stakeholders, relevant FAs, and leadership.
- Coordinate with PG&E Emergency Operations Center to enable informed deployment of resources to help protect critical utility infrastructure and crews in anticipation of a potential PSPS Event.
- Through liaison with the PSS team, partner, and coordinate with local government, first responders, media, and safety officials on wildfire prevention and emergency response.
- Partner and coordinate with PG&E Geosciences during winter storms to monitor for debris flows in burn scar areas and issue watch and warning messages.

Additional detection and monitoring capabilities include:

- **Satellite Fire Detection:** The PG&E Meteorology Operations and Analytics team has a PG&E wildfire detection and alerting system that uses satellite data for rapid awareness and response to new incidents: GOES-R series geostationary satellites, GOES-16, and GOES-17, take measurements every five minutes and can detect fires as small a few acres in size. An operational data feed of satellite fire detections is ingested and displayed in near real-time on the PG&E Wildfire Detection and Alerting System Map. Email alerts are disseminated to key personnel and the HAWC when new fires are detected within two miles of any PG&E assets.
- **Lightning Detection Network:** PG&E's Meteorology and Operations team operates and maintains the PG&E Lightning Detection Network to monitor cloud to ground lighting strikes in near-real time. Cloud-to-ground lightning strikes are recorded at ground stations across the PG&E territory and are available and displayed in near real-time in PG&E GIS systems. The system also sends email alerts of new lightning strikes to assist with monitoring of real-time events. Lightning strikes cause thousands of fires each year across the United States.
- **Fire Weather Web Portal:** The PG&E's Meteorology Operations and Analytics team supports and regularly updates the internal Fire Weather Web Portal. This page contains useful internal and external hyperlinks to access current fire incidents, fire danger and fire weather forecasts, satellite fire detection products, long-range outlooks, satellite imagery, as well as fire products (perimeters & detections) integrated with Google Earth.
- HD Fire Camera System: HAWC monitors the HD fire camera system. PG&E's sponsored cameras are part of a broader network of cameras across the territory and provide a critical visual means for early detection and assessment of wildfires. This detection is made possible through the implementation of visual monitoring by both personnel and Artificial Intelligence (AI). AI detections are sent directly to HAWC analysts for evaluation. With such early detection and assessment, PG&E has a much better sense of the scale, urgency, and threat—or determining there is no threat—of the fire to allocate appropriate resources in a timely manner to mitigate

potential damage to assets and infrastructure as well as protect public safety. First responder organizations including CAL FIRE and county fire agencies use the cameras extensively to assess a wildfire, allocate appropriate resources and to ultimately stop wildfires.

4.1.5 Weekly Situational Awareness Calls

EP&R conducts weekly situational awareness calls (WSAC) to facilitate coordination across the FAs, ensure awareness (or a common operating picture), and provide a platform to exchange information and ideas when business is in its steady state.

Weekly operations calls are specific to each FA and are used to provide updates on current conditions, exchange vital information, and to discuss any challenges or issues potentially facing the FAs.

4.1.6 Daily Meteorology Updates

PG&E's Meteorology Service provides routine weather forecasts that contain information relevant to the likelihood of potential fire weather. Such reports are communicated daily, including:

- PG&E 7-Day Public Safety Power Shutoff Potential Forecast
- Distribution System Operations Weather Forecast (72-hour forecast)

4.1.7 Field Safety Procedures

Enterprise Health and Safety's role in an emergency is to:

- Identify and develop measures to mitigate hazards.
- Develop strategy and tactics related to risk management and safe operations during incidents and planned events.
- Monitor all operations to ensure effectiveness of safety controls.
- Provide updates on field safety specialists and establish and communicate safety and health priorities for each Operational Period.
- Monitor air quality as reported by AirNow and/or PG&E Meteorology to ensure compliance with PG&E's *Wildfire Smoke Exposure Standard* (SAFE-1042S) and advise EOC and field operations accordingly.

Roles during a wildfire response:

- **Safety Officer:** Develop strategy and tactics related to risk management and safety operations during incidents and planned events.
- **Assistant Safety Officer:** Support overall safety and manage Safety staff.
- **Field Staff:** Monitors field work through observations by reporting back findings, areas of improvement, and At-Risk conditions.
- **Air Quality Monitor:** Field Safety will assign personnel, when applicable, to monitor air quality as reported by AirNow and/or PG&E Meteorology to ensure compliance with PG&E's *Wildfire Smoke Exposure Standard* (SAFE-1042S) and advise EOC

and field operations accordingly. Industrial Hygiene Staff will perform air monitoring (and/or direct IH contractors to perform air monitoring) when additional data points and in situ monitoring is required to ensure coworker safety and to provide specific guidance on safe working conditions and steps crews should take to minimize exposure.

For additional information on roles and responsibilities please refer to the Enterprise Health and Safety, *Safety Officer Playbook*.

4.1.8 Impacted Coworker Analysis and Messaging

The Human Resources Emergency Response Team (HR ER TM) support is within the EOC Finance and Administration Section. The HR ER TM has three EOC activation response capabilities: Natural Hazard, PSPS, and Cybersecurity. HR's wildfire response capabilities are the same as the other HR EOC activation natural hazard responses and supports the CERP. During natural hazard responses, the HR ER TM reaches full operational capability by activating the HR Unit and HR Base Camp Cell when required.

The HR Unit Leader manages the HR Annex (EMER-3006M), Appendix F. All-Hazard Impacted Coworker and Emergency Message Support process. The HR Unit Leader and the HR Data role provide the incident zip code impacted coworker analysis, coordinate the Everbridge (EVBG) emergency messaging process, obtain active coworker accountability, support active impacted coworker outbound calls, and track impacted coworker disaster support when applicable. The HR Unit Leader coordinates efforts with the HR Help Line (HR HL), Hazard Awareness Warning Center (HAWC), Global Information System (GIS) technician, EOC Coordinator, Public Information Officer (PIO), EOC Commander and the Pacific Services Employees Association (PSEA) manager. The active coworker accountability process ends when the HR branch director sends the unaccounted active coworker message to supervisors advising them to obtain accountability of potentially impacted coworkers. HR's impacted coworker analysis and emergency messaging efforts are included within the HR Common Operating Picture and the applicable EOC situational awareness information report.

The HR Unit Leader provides guidance to the impacted coworker with the approved level of coworker disaster support (lodging, time off with pay, and destroyed primary residence financial assistance). The HR Unit Leader synchronizes support efforts with the PSEA manager to ensure impacted coworkers are receiving available benefits from both PG&E and PSEA. PG&E and PSEA disaster support is not guaranteed and may be adjusted at any time.

4.2 Response Operations

Actions taken under the response phase are focused in Section 1.3 Emergency Response Priorities. The primary response phase focus is life safety and protection of the public, first responders, and others. PG&E's response to confirmed wildfires generally proceeds as follows:

1. Initial Attack
2. Securing Access to the Fire Footprint
3. Damage Assessment

4. Asset Repair/Replacement
5. Service Restoration
6. Fire Recovery

4.2.1 Initial Attack

Initial attack begins at the ignition of a wildfire and requires immediate engagement between the Authority Having Jurisdiction (AHJ) and PG&E. This immediate engagement aligns PG&E with the needs of the AHJ:

- De-energize electric facilities at the request of the AHJ.
- If gas assets are involved, assess high-risk facilities (such as gas distribution regulation stations) and perform shut-ins where necessary.
- Gain situational awareness of PG&E assets impacted or at risk.
- Clear roadways impeded by PG&E assets.
- Identify affected critical and essential customers.

The PG&E communication path to and from the AHJ is typically performed by an assigned Public Safety Specialist (PSS) while performing the role of the Agency Representative as mentioned in the section below.

4.2.2 Securing Access to Fire Footprint

Securing Access to Fire Footprint: PG&E access on active wildfire incidents is determined by the Authority Having Jurisdiction (AHJ), usually CAL FIRE, the U.S. Forest Service, or a local government fire agency. The AHJ determines the boundaries (typically referred to as the “fire footprint”) for evacuation warnings and orders in consultation with law enforcement and limits access to these areas. The AHJ relies on law enforcement agencies to control access to these areas. Although PG&E may be functioning as a cooperating or assisting agency on a wildfire, PG&E does not have any jurisdictional authority to access the “fire footprint” unless explicitly authorized by the AHJ. It is essential that all PG&E coworkers follow agency directives regarding access when working on wildfire incidents.

Note: The PG&E Public Safety Specialist (PSS) is responsible for working with the AHJ to determine the level of PG&E access to the “fire footprint”. In general, the AHJ approves PG&E fire access at three levels:

- Safety and Infrastructure Protection Teams (SIPT) and PSS only
- PG&E personnel with SIPT or PSS escort
- Unescorted PG&E personnel

4.2.3 Damage Assessment

Damage assessment of PG&E assets is the first step in determining the scope of repairs and forecasting Estimated Time of Restoration (ETOR).

The purpose of conducting damage assessment is to gain situational awareness and determine a preliminary scope of repair requirements. As stated in the CERP, there are two key steps to the assessment process:

1. Field personnel initially assess the damage and make repairs, if possible.

2. Office personnel manage the information to ensure that the assessment information is timely and accurate throughout the restoration process.

All pre-existing (maintenance, capacity, reliability, system hardening) work within the fire footprint should be taken into consideration when determining the final scope of work.

Damage assessments can be done via air or ground. Electric Corrective (EC) tags are created for each work location and are the basis for the development of the job estimate and job package. Because a wildfire could disrupt the electric grid and its operating systems, there may be a series of assessments being conducted simultaneously. Details of individual assessment processes can be found in the Electric Annex, Gas Emergency Response Plan, Logistics Annex, Information Technology Annex, and the Cybersecurity Annex.

If Gas Operations are impacted by a wildfire, the Distribution Integrity Management Program (DIMP) will perform asset health assessments, based on field conditions reported (condition of risers, exposed pipes as well as pipe spans). These assets will determine if facilities require replacement, or if further inspection(s) are needed to determine the condition of Gas facilities. DIMP also evaluates system integrity for restoration processes and determines precautions, as necessary. Additionally, DIMP provides regulatory guidance to support field activities and records management.

4.2.4 Asset Repair/Replacement

Electric Asset Repair/Replacement should be completed utilizing a circuit-based strategy method working from source to load. Gas response in this phase focuses on cut-offs unless the system is deemed undamaged.

4.2.5 Service Restoration

Service Restoration is the most critical stage of the wildfire response. All PG&E electric assets that are planned to be reenergized must be re-patrolled, positively confirmed to be safe, and permission must be granted by the AHJ prior to reenergizing. For gas response, the restoration process begins once all damaged areas are cut off and all assessments are completed. This often includes a leak survey, repair activities as needed, purging, and then relighting of individual customers.

PG&E will deploy the Remote Estimating team to prepare designs, estimates, and job packages for critical infrastructure rebuild. Rebuild designs will be executed in accordance with PG&E's new fire-resilience infrastructure standards and design assumptions will be incorporated based on resilience and hardening plans. Critical infrastructure rebuild will be executed in parallel with estimating effort and in accordance with fire resilience engineering standards.

4.2.6 Fire Recovery Communications

Fire Recovery is the process in which PG&E provides lines of communication with our customers to effectively support them post fire. Unique scripts, messaging, and processes should be established with PG&E Call Centers to direct customers affected by the wildfire

to the appropriate department for engagement and support. For damaged Gas structures that were cut off during the initial response, a below ground gas stub is placed to re-connect service later once the customer's property is fully repaired.

Additional details can be found in Section 4.4 below, the CERP, the Wildfire Mitigation Plan, and/or specific FA standard operating procedures.

4.3 Recovery Operations

PG&E is committed to timely, well-coordinated restoration and recovery activities; and while each incident has unique facts and circumstances, PG&E's post-incident restoration approach empowers teams to rebuild and recover from a disaster safely, efficiently, effectively, and consistently. Community support and rebuild activities will be determined based on PG&E's analysis of the wildfire impact.

4.3.1 Transition to Rebuild

Once the wildfire is extinguished or under control, a transition to rebuild may/will occur. In some cases, the rebuild could occur as part of normal operations, but for more catastrophic wildfire events, this transition may occur under a different organizational structure, such as a Community Rebuild Program Management Team. PG&E's *Disaster Rebuild Annex (EMER-3012M)* outlines those plans, procedures, processes and activities.

4.3.2 Repopulation

Discussions regarding repopulation shall occur early into the incident between the PG&E PSS and the AHJ. Repopulation discussions shall include, but are not limited to the following:

- Establish geographic areas of priority for repopulation.
  - PG&E PSSs should make every effort to assist the AHJ in creating geographic areas utilizing a circuit-based strategy method working from source to load.
- Assure those geographic areas are safe for repopulation from damaged utility assets which create a public safety risk.
- Determine if the AHJ will repopulate geographic areas with or without utility gas and electric service.
- Develop and maintain alignment between PG&E and the AHJ for utility repair and replacement work to be performed in areas where the wildfire agencies and the public may be present.

Close coordination shall occur between the PG&E PSS and the PG&E Incident Commander (IC) when PG&E is asked to sign the various geographic repopulation plans to assure that it is safe to do so from a utility perspective.

4.3.3 Wildfire Burn Area Ground Stability and Debris Flow **Monitoring**

Generally, the most hazardous types of earth movement in fire burn areas are debris flows (also commonly called mudflows), which can be triggered during periods of heavy rainfall and carry slurries of soil, rock, and trees rapidly downslope in hillside swales and tributary

stream gullies. Debris flows can exert high impact forces and inundate structures and areas in their path within and below hillside areas and gullies. The debris can travel for considerable distances (*e.g.,* hundreds of feet) beyond the base of hillsides or mouths of swales and can form stream/debris torrents that can cause flooding and erosion hazard in streams and rivers for miles downstream of large debris flow entrance points. Post-fire asset inspections include evaluation of geotechnical foundation stability impacts where warranted, and assessment of the potential for heightened debris flow and soil erosion hazards because of fire-induced soil changes by Geosciences in support of the EOC, EP&R, and FAs.

Geotechnical foundation stability assessments include a combination of remote imagery evaluation and field reconnaissance by geologists and/or geotechnical engineers where fire can affect the stability of soils and foundations supporting PG&E assets. Adverse geotechnical fire affects typically are most significant in areas of intense burning on steep slopes but can occur elsewhere depending on the type of structure and foundation system supporting the asset. The geotechnical assessment informs decisions regarding the need for any foundation replacement, repairs, or slope stabilization/monitoring.

To control erosion, mastication is used with minimal soil disturbance and dense organic material left behind. In coordination with fire suppression agencies, PG&E may construct water bars in the power line right-of-way access roads for erosion reduction in the burned area. This is done after the restoration efforts are completed.

Evaluation of debris flow and soil erosion hazard includes geologic assessment of the soil type and degree of modification to the soil from fire alteration, slope steepness, degree of vegetation and root network degradation, and intensity of rainfall. Fire-induced soil changes and loss of stabilizing vegetation/root networks typically takes several years after the fire to recover back to the pre-fire baseline. During this period, the potential for debris flows and erosion during winter storms is significantly increased. Debris flows pose both safety and facility damage hazards from undermining (foundations) and scour (pipelines) related to removal of soil in the debris flow initiating source area, and impact or inundation from mobilized debris along the debris flow path or runout area. They can occur suddenly and may travel far downslope and for a significant distance beyond the toe of slopes or into stream channels. Erosion typically does not pose a significant safety hazard, but can progressively undermine foundations and roadways, and cause mass soil transport that can be a maintenance or environmental concern.

Geosciences, in collaboration with the US Geological Survey (USGS) and other county agencies, has implemented a post-fire debris flow assessment program that includes the following elements:

Post-fire field reconnaissance of major burn areas traversed by, or proximal to, PG&E infrastructure to document fire impact on debris flow potential

- Soil and water infiltration testing in selected burn areas to better quantify fire impacts and improve debris flow model input
- Debris flow model calibration by documenting and evaluating actual debris flows and recorded triggering rainfall intensities

- Installation of temporary automated remote rain gauges in selected burn aeras with significant debris flow potential to provide improved predictive model results
- Implementation of the USGS debris flow model (with enhancements for inputting discrete rain gauge data) as part of PG&E's storm monitoring and response
- Identification and direction of collaborative and targeted research with governmental and academic organizations (*e.g.,* USGS, California Geological Survey, universities) to improve debris flow predictive models

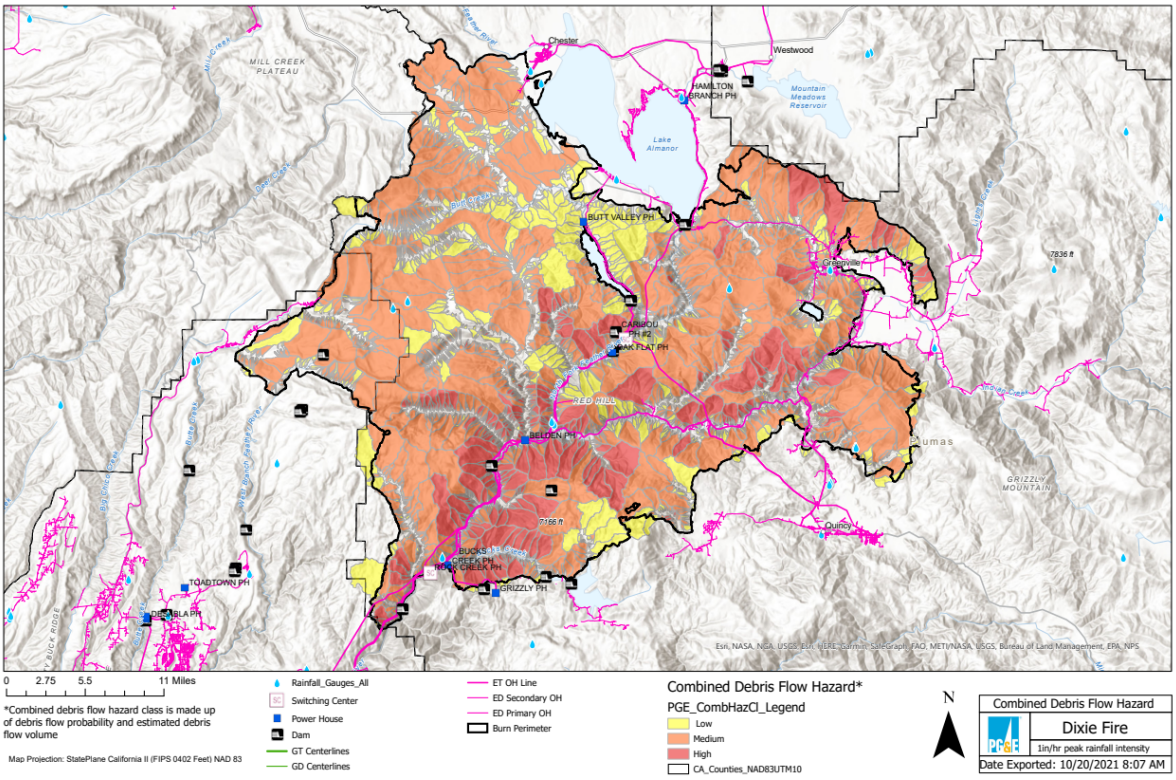
Geosciences' debris flow hazard prediction model integrates PG&E infrastructure, past debris flow datasets, local jurisdictional precipitation data, USGS model results, and other datasets. The model was created to calculate debris flow thresholds and integrate this within PG&E's precipitation forecasts to rapidly predict the location and severity of debris flows in fire areas prior to major storm events.

During winter storm events where the precipitation is expected to reach or exceed the rate of ¼" in 15 minutes, Geosciences will issue debris flow watches or warnings to alert field crews to the increased risk of debris flows in areas they may be working.

- **Debris Flow Watches** are issued when a heightened state of awareness and monitoring is recommended. Work in areas along the base of steep slopes and drainages within and below fire burn areas should be approached with caution and personnel should always be aware of the surrounding land conditions and weather changes. Periodic check-ins should be conducted with all field personnel.
- **Debris Flow Warnings** are issued when continued monitoring of rainfall throughout this storm event indicates the potential for short-duration, intense precipitation that poses a heightened likelihood for initiation of debris flows within vulnerable slopes. The greatest likelihood is in heavily burned areas at the base of steep slopes and downstream drainages but could also include areas of moderate slopes and along larger creeks.

Geosciences' debris flow hazard maps (Figure 4-1) show the relative hazard for debris flow triggering within individual basins and along drainages with a focus on the orange (moderate hazard) and red (high hazard) zones of greatest concern. Work and personnel should be restricted at the base of slopes, drainages, and creek banks in the identified areas of concern until the Warning is terminated. Field crews should be specifically prepared to respond to debris flow occurrences in these areas and maintain a heightened state of alert with frequent EOC check-ins to obtain information updates and report observed debris flow activity.

Figure 4-1: PG&E Debris Flow Hazard Map



To further improve Geosciences' debris flow model estimates specific to the wildfire burn zones in northern California, Geosciences and Emergency Preparedness and Response (EP&R) are augmenting the collection and monitoring of rainfall intensity in the fire burn zones. The installation of rain gauges (using cellular or satellite technology) will improve our capability to monitor high concern areas in remote locations and augment National Weather Service and PG&E Meteorology precipitation radar and local weather station data. This information combined with systematic field reconnaissance (including visual and LiDAR-based mapping) is part of the program to improve debris flow assessment capabilities in northern California. The purpose of improved monitoring will help establish threshold rainfall intensities for debris flow initiation (currently ¼ inch in 15 min). These types of instruments are ideally suited to record rainfall in environmentally sensitive areas as part of PG&E's wildfire monitoring program as well. Long-term monitoring provides situational awareness of potentially hazardous earth movements during the recovery period.

4.3.4 Forest Practice

PG&E follows and implements current internal procedures to comply with CAL FIRE Forest Practice Rules.

4.3.5 Fire Investigation

Electric Incident Investigations are conducted by the Electric Incident Investigation (EII) team in accordance with *Electric Incident Investigation Procedure*, (RISK-6305P-02) and the Ignition Investigation team in accordance with the *Fire Incident Data Collection Plan and Reporting Standard* (RISK-6306S). Please note, the Safety team and Corrective Action Program (CAP) team conduct investigations into Serious Injuries or Fatalities of PG&E

coworkers in accordance with SAFE-1100P-01, *Serious Injury and Fatality Procedure*, and GOV-6102P-03, *Electric Operations Cause Evaluation Process*.

If the HAWC identifies ignitions with outages associated or ignitions with another indication that further investigation is required, the HAWC will notify EII team. When the EOC is activated, HAWC, EII, and Law may brief the Incident Commanders on ignitions of concern. Generally, investigations into ignitions of concern will be handled by HAWC, EII, and Law outside of the EOC process, and communications within the EOC should be limited.

Evidence should be collected in accordance with LAW-3001P-02, *First Responders Evidence Procedure*, and must be stored at an appropriate facility identified by Law Claims for a minimum of 5 years in compliance with CPUC General Order 95, Rule 19.

Incidents that could meet the Electric Incident Report (EIR) criteria outlined in CPUC Decision D.06-04-055 and Resolution E-4184 should be evaluated for reportability in accordance with *Electric Incident Reporting On-Call Representative Procedure* (RISK-6305P-01). Incidents that meet the EIR criteria should be called in to the CPUC Incident Reporting 24-Hour Hotline (415-973-CPUC or 415-973-2782).

The Ignitions Investigations Team is responsible for investigating ignition events potentially attributable or attributable to PG&E equipment and is responsible for communicating ignition details to internal and external stakeholders in accordance with the Company's *Fire Incident Data Collection Plan and Reporting Standard* (RISK-6306S). The scope of the Ignitions Investigations Team generally excludes ignitions that were determined to be EIRs, as they are investigated by the EII team.

PG&E Law or leadership may determine that an incident investigation (either CPUC reportable or not) should be performed at the direction of counsel and must be "Privileged and Confidential." In this case, the assigned PG&E lawyer leads the investigation, including investigations performed by the Ignitions Investigations Team.

4.3.6 Community and Customer Support

Support for impacted customers is an important element of PG&E's recovery efforts. PG&E has developed programs that offer financial relief following an incident, established customer assistance centers, and call centers to answer customer questions.

The financial relief programs are designed to relieve customers from some of the financial burden they can experience after a wildfire. The programs include options for low income, bill adjustments, and extended payment plans. The customer assistance centers are designed to provide a single point of contact for customers needing help with billing, claims, service planning, permits, and deposit waivers. Additional guidance can be found in the *Billing and Credit Operations Protection Procedures*.

To better support our customers who may have experienced extensive property damage as the result of a wildfire fire event, PG&E works with external stakeholders to have visibility on damage assessment data. The fire AHJ will conduct property assessments and issue a determination of damage (red/yellow tag). The AHJ will then provide that data to the affected municipality.

Requests by PG&E for access to the red/yellow tag data will then be directed to the respective agency representative (PSS or tribal based on the location of the impacted municipality), who will then coordinate with internal FAs (local government affairs or PG&E Customer Relations) for receipt of the requested data. The data will then provide the PG&E Customer Support team direct visibility into those customer accounts impacted by the event.

4.4 Mitigation

Much like Preparedness, many of the actions and strategies taken under the Mitigation phase is implemented by PG&E as part of its normal, day-to-day operations. Types of actions include, but are not limited to:

- Vegetation management (fuel reduction)
- System hardening including the following:
  - Retrofitting of obsolete or vulnerable equipment and/or facilities
  - Enhancement of equipment and/or facilities
  - Undergrounding lines

Additional details about activities taken for the above actions can be found in the *Wildfire Mitigation Plan*, and/or FAs Standard Operating Procedures.

4.4.1 Enhanced Powerline Safety Settings

Enhanced Powerline Safety Settings (EPSS) is a protection scheme installed on all distribution and select transmission circuits within the High Fire Risk Area. When EPSS is enabled, power automatically turns off within one-tenth of a second if a threat is detected on the line that could result in an ignition. EPSS is a protective technology that allows line protection devices, such as line reclosers, to address faults of varying magnitude and rapidly de-energize the line. These faults may occur due to vegetation striking a line, animal interference, third-party interference (e.g., a vehicle hitting a line) or equipment failure. Distribution circuits enabled with EPSS are configured to clear high-current bolted fault conditions at 100 milliseconds or less. EPSS settings also allow circuit breakers and reclosers to clear faults beyond fuses. This allows clearance of all fuse-protected circuit segments with ganged three-phase interruption to prevent back feed into the fault.

Historically, outages that occur while EPSS is enabled on average last approximately three hours. When any outage occurs while EPSS is enabled, personnel are required to respond to the outage location within 60 minutes to ensure an ignition has not occurred. In 2023, EPSS was 72% effective in reducing CPUC reportable ignitions from occurring on distribution powerlines in HFRA.

4.4.2 System Hardening

PG&E's System Hardening Program focuses on the mitigation of potential catastrophic wildfire risk caused by distribution overhead assets. This program targets the highest wildfire risk miles and applies various mitigations such as line removal, conversion from overhead to underground, application of remote grid alternatives, mitigation of exposure

through relocation of overhead facilities, and in-place overhead system hardening. The highest wildfire risk miles are separated into four categories:

- The top 20 percent of circuit segments as defined by PG&E's 2021 Wildfire Distribution Risk Model for System Hardening
- Fire-rebuild areas
- PSPS mitigation projects
- Locations identified by PG&E's Public Safety Specialist (PSS) team as presenting elevated wildfire risk

PG&E also considers secondary risks and benefits as part of the System Hardening Program effort such as PSPS impacts, egress/ingress routes to support fire department response times and public safety, past fire history and effects on available fuels, current system condition, environmental risks to reconstruction activities, and general accessibility considerations to enhance coworker safety.

4.4.3 Vegetation Management

PG&E manages vegetation along its overhead distribution and transmission electric facilities, which is intended to reduce the risk of possible ignitions associated with vegetation contacts. PG&E's Vegetation Management Program has several elements designed to:

- Comply with state and federal regulatory vegetation clearance requirements on both Transmission and Distribution overhead systems and substations.
- Additional wildfire risk reduction commitments are prioritized in the Enhanced Vegetation Management program as defined in the company's Wildfire Mitigation Plan.
- Proactively conduct tree work that reduces the likelihood of tree failure that could impact electric facilities.
- Address vegetation risks associated with the drought and tree mortality, as emphasized by emergency declarations and resultant directives.
- Complete and maintain auditable records of work completed in high fire risk areas, and all other areas through established work verification, Quality Assurance, and quality control programs. This includes Vegetation Management patrols in coordination with electric construction to identify and mitigate trees that present an immediate threat to life and our facilities. Secondary and tertiary patrols identify trees damaged by fire but are not an imminent hazard.

4.4.4 Environmental Management, Environmental Compliance, and Resource Permitting

4.4.4.1 What We Do

Environmental Management is involved in PG&E's emergency response to ensure the accomplishment of the following objectives:

- PG&E compliance with all relevant environmental laws, rules, and regulations during the emergency response as well as any during any required post-emergency restoration and stabilization activities.
  - PG&E identifies any post-emergency environmental restoration needs, which could extend past the immediate emergency event.
- PG&E avoidance and/or minimization, to the extent possible, of unnecessary impacts to biological, cultural, and natural resources (e.g., water and air).
  - PG&E tracks any emergency-related environmental impacts that may need to be accounted for as part of mitigation obligations.
- PG&E compliance with the requirements of any relevant programmatic agreements established with various local, state, and federal agencies.
  - PG&E conducts the appropriate permit notifications as per required timeframes and activates any required post-emergency permitting and reporting efforts.

4.4.4.2 Why Contact Us

Failure to communicate and coordinate emergency response activities with Environmental Management can lead to Notice of Violations (NOVs) and financial penalties from regulatory agencies. Along with the financial impact it also strains the relations between PG&E and regulatory agencies as well as the customers we serve.

4.4.4.3 Who to Contact

It is important for OEC Incident Commanders and EOC Commanders to coordinate with the lead environmental field specialist role at the OEC and REC and the Environmental Response Unit leader at the EOC to ensure compliance with environmental objectives during an emergency.

Staff in these roles are experienced at and perform the following tasks:

- Manage hazardous materials and wastes, including spill response, in the field and at emergency field facilities.
- Acquire permits and interfacing with landowners and regulatory agencies.
- Provide guidance and technical direction regarding water quality, use of Best Management Practices (BMPs) when operating near waterways, avoidance of biological resources and culturally sensitive areas, and compliance with all applicable air regulations (e.g., grading, temporary generator use, wet hosing of gasoline).
- Support the development of Environmental Release to Construction (ERTC) for all emergency field facilities (e.g., base camps, microsites, laydown yards, landing

zones, staging areas, temporary generation sites, as well as wood management and wood burning sites).

4.4.4.4 What Information is Needed

- Locational details (latitude / longitude coordinates)
- Access route information (e.g., overland access, new roads, existing dirt roads that need to be improved for access, existing paved/gravel roads)
- KMZ of emergency field facilities (polygons), temporary generation facilities, and work locations (points or polygons) in the field
- GIS layers with coordinates of work locations (e.g., pole replacements and transformer spills) to run through AEA

Upon activation of the EOC/REC/OEC incident command structures, and throughout the duration of the event, the following information should be submitted to the Environmental team with location information:

- PG&E facilities involved in the event, PG&E facilities that will require repairs/rebuild, and the scope of the proposed repairs such as listed below:
  - Ground disturbing activities such as oil spill clean-ups and excavations (e.g., bell holes, potholes, pole replacements, anchor replacements, tower footings)
  - Repair or replacement of damaged facilities in existing alignment.
  - Rebuild of PG&E facilities in different alignment/location
  - Undergrounding of overhead facilities
- Proposed locations and operations for basecamps, and micro sites use for both PG&E and contract crews supporting the efforts (as applicable) and any associated site access issues
- Proposed locations and operations for staging/processing of wastes, materials, and equipment (laydown yard) and parking of vehicles and trucks (staging area)
- Proposed locations and operations for helicopter landing use (i.e., landing zone)
- Proposed new/expanded existing access roads, spurs, overland access, and/or new access paths/trails
- Proposed road maintenance such as grading, culvert replacements or cleaning, and work at water crossings
- Proposed work within or adjacent to wetlands, drainages, or streams
- Proposed areas and paths for removal of trees and vegetation for safety or compliance purposes in proximity to PG&E facilities or to gain access to PG&E facilities
- Proposed locations for temporary generation, including equipment types and sizes

- Locations in which PG&E conducted work and erosion and sedimentation of material may need to be addressed (*e.g.,* soil or other debris that could migrate into a stream)

4.4.5 Post-Emergency Work

Environmental work is still extremely critical once emergency response work is complete at emergency field facilities. This section addresses post-emergency environmental restoration needs.

When emergency field facilities are demobilized, there are often several follow up tasks that are needed to ensure there is no environmental impact, which include:

- Site assessments and surveys
- Removal of best management practices (e.g., fiber rolls and flagging)
- Restoration of sites to their previous conditions, or as otherwise stated in agency programmatic or landowner agreements

When work locations are left after utility work is complete in the field, the associated disturbed areas as well as the access routes used to get to the areas often need to be restored to their previous conditions. Common post-emergency response restoration issues in work locations include, but are not limited to, the following:

- Inadequate road drainage and erosion due to new or existing roads being blade for access
- Woody debris or trees left in or near waterways
- Damaged culverts
- Habitat or special status species impacted due to water crossings, land disturbance
- Erosion from disturbed soil near waterways, even dry drainages
- Exposed or impacted cultural resources
- Oil or other hazardous substance release into the environment from transformer and other spills
- Temporary generation facilities remaining active post-event are not reported to the Air Program for determination of need for a local air district permit

These issues can often result in agency Notice of Violation (NOVs) and/or fines and can sometimes take months or longer after the emergency operations to properly address. It is critical to reach out to the Environmental lead, identified in **Who to contact section above,** to get environmental subject matter expert (SME) assistance on corrective actions to avoid and minimize these non-compliances.

4.4.6 Environmental Constraints Layer Integration into Maps+

The Environmental Constraints Layer (ECL) is a spatial data tool designed to guide PG&E personnel and contractors conducting work in Tier 2 and Tier 3 High Fire Threat areas. ECL data is viewable for both Transmission and Distribution programs. Currently, ECL is a Vegetation Management tool and may not provide reliable environmental screening for other workstreams.

It is recommended that emergency field personnel should consult Maps+ (for Vegetation Management projects) and the Environmental Management contact, identified in **Who to contact section above,** to determine if there are environmental constraints in an area where work will be performed based on certain criteria.

The ECL uses color designations and attribute tables to:

- Show the type of work permitted (e.g., ground disturbing work vs. no ground disturbing work).
- Denote the environmental constraints in an area (e.g., sensitive species, cultural/historic sensitivities, water features).

The division or IMT Environmental lead should be contacted if emergency work is performed in an area with environmental constraints identified as amber, black, red, or blue.

Avoidance and Minimalization Measures (AMMs) or Best Management Practices (BMPs) should be used prior to performing work in Environmental Constraint areas identified above. For guidance on these, reach out to the Environmental Management contact.

4.4.7 Land Management: Land Acquisition, Land Rights, and Natural Resource Management Roads Support During Wildfires

Land Management is involved in PG&E's Emergency Response to accomplish the following objectives:

- Establish locations for customer resource centers, emergency sites, and temporary construction areas during events.
- For emergency sites and other non-PSPS emergency support, Land Acquisition will work with EOC to acquire target sites in support of restoration. Land Acquisition will negotiate, acquire appropriate land rights, and provide support during the event as issues arise at that given property.
- Complete land rights review as needed to support events.

For road support, Natural Resource Management (NRM) will respond to EOC requests, provide assessments of road conditions pre- and post-restoration activities, and make roadwork recommendations/BMPs to repair damage, and comply with regulations. The above objectives can be accomplished when emergency operational information is tracked from the very beginning to the very end of the event and promptly shared with Land Management.

Upon activation of the EOC/REC/OEC incident command structures, and throughout the duration of the event, the following information should be submitted to Land Management with location information:

- Proposed sites for customer resource centers, emergency sites for both PG&E and Contract crews supporting the efforts (as applicable)
- Proposed sites for staging of materials and equipment, parking of vehicles and trucks, waste, and material management and/or processing
- Proposed sites for helicopter landing use
- Proposed new access roads, spurs and/or new access paths/trails
- Road maintenance, grading, culvert replacements or cleaning, work at water crossings
- Removal of trees and vegetation for safety or compliance purposes in proximity to PG&E facilities
- Areas and paths cleared or proposed to be cleared of vegetation to gain access to PG&E facilities or other emergency related purposes such as crew safety

4.5 Demobilization

The purpose of a demobilization process is to ensure that the resources (personnel, equipment, or other materiel) are released in the right sequence, at the right time, and by the right individuals. Demobilization includes the overseeing and validation of the safe and efficient return of resources to their original location and/or status when they are no longer needed to support the emergency response or recovery efforts. The safety risks associated with demobilization are also evaluated (*e.g.,* individual crewmember fatigue level) to ensure safe travel home.

5 Training and Exercises

Under CPUC's *General Order (GO) 166* and as mandated by PG&E *Business Continuity Planning, Training, Exercise, and Improvement Planning Standard* (EMER-1001S), coworkers with an emergency role are trained and participate in an annual exercise. For additional information regarding training, see section 3.7.1 in the *Company Emergency Response Plan (CERP)* (EMER-3001M).

PG&E supports various trainings and exercises throughout the year. PG&E trains its coworkers on emergency preparedness and response principles and the *CERP*. Training is offered via several formats, including on the job, tailboards, web-based and instructor-led training courses (WBTs and ILTs), and simulated emergency exercises. For further details, refer to *Integrated Preparedness Plan* (IPP).

Annually, the following wildfire-specific training is required:

- Field personnel and their supervisors receive training on *EMER-4102S Preventing and Mitigating Fires While Performing PG&E Work*. This standard along with the *Integrated Preparedness Plan* (IPP) provides an outline of operational requirements for working and operating in areas that are considered high fire risk during fire season. Fire Danger Precautions Training (SAFE-1503WBT) targets PG&E coworkers working on any forest, brush or grass covered lands. This training is profiled to the target audience as mandatory, to be completed annually between January 1 and April 1.

- PG&E conducts annual electric safety training for first responders including law enforcement agencies, fire departments, public works, and transportation agencies. PG&E hosts local, state, and federal agencies and jurisdictions in several Wildfire Kickoff events each year to exchange strategies and plans for upcoming fire seasons. PG&E also coordinates with the State Fire Marshal's Office to facilitate a regional *Powerline Fire Prevention Field Guide* and equipment identification/ orientation.

- PG&E also provides trainings annually for various applicable field personnel to prepare for the fire season to ensure that everyone has equipment that can aid in fire response, where appropriate.

- PG&E arborists and tree workers are trained on sources of ignition, ignition prevention, and the use of fire suppression equipment. Workers have access to fire prevention and suppression tools to use in the field should a fire occur, including fire extinguishers, Mcleods (hoe-like firefighting tools), shovels, back-pack sprayers and other tools as required in State Responsibility Areas under California Public Resources Code (PRC) 4428.

In accordance with the CPUC regulation, EP&R ensures that the *CERP* is exercised annually, while each FA partners with EP&R to ensure that the functional and hazard-specific annexes to the *CERP* are exercised in accordance with the *Integrated Preparedness Plan* (IPP) calendar. Both the *CERP* and *Annex* exercises are based on emergency management program priorities and test the specific operational components included in the *CERP* and *Annexes*. Exercises are conducted in tabletop, functional, and

full-scale formats, with the format being selected based on the capabilities and objectives identified.

5.1 Training Program

Annual Training Requirements – At the completion of, and with each annual update of the *Wildfire Annex*, EP&R SE will develop and facilitate a seminar to ensure all emergency personnel are continually trained to current information.

5.2 Exercise Program

Annual Exercise Requirements – Specific to Wildfire Preparedness, the CPUC has ruled through its Wildfire Mitigation Plan 2020 decision that PG&E shall conduct a wildfire exercise not less than annually, prior to the start of wildfire season. This has been incorporated into the *Integrated Preparedness Plan* (IPP).

6 After-Action Reports

The After-Action Report (AAR) summarizes key information related to activation response and recovery activities. In accordance with the *CERP*, section 5.8.3., PG&E conducts an After-Action Review with responding incident leadership to identify strengths and opportunities for improvement. EP&R solicits and analyzes feedback from key leaders who supported the activation and then prepares a draft AAR.

The AAR includes an improvement plan with identified issues and corrective actions, which may be used to enhance existing procedures and planning future emergency response exercises. Action items from the improvement plan may be submitted into the Corrective Actions Program (CAP) for assigned ownership and follow up.

PG&E's *EOC Activation After-Action Report (AAR) Process Standard*, EMER-2003S, can be found in the Guidance Document Library at Emergency Response - EMER (sharepoint.com).

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7 Appendices

Appendix A, Acronyms and Glossary

Appendix B, Fire Season Outdoor Work Fire Mitigation

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Appendix A. Acronyms and Glossary

A.1 Acronym List

Acronym	Definition
AAR	After-Action Review
AHJ	Authority Having Jurisdiction
BLM	Bureau of Land Management
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Office of Emergency Services
CAP	Corrective Action Program
CERP	Company Emergency Response Plan
CPUC	California Public Utilities Commission
CWSP	Community Wildfire Safety Program
DBH	Diameter at Breast Height
DCC	Distribution Control Centers
DHS	Department of Homeland Security
DOE	Department of Energy
DSR	District Storm Rooms
EDGIS	Extended Dynamic Geographic Information System
EII	Electric Incident Investigation
EIR	Electric Incident Report
EOC	Emergency Operations Center
EP&R	Emergency Preparedness & Response
EPSS	Enhanced Powerline Safety Settings
ESF	Emergency Support Function
ESRB	Electric Safety and Reliability Branch (CPUC Safety Enforcement)
ETGIS	Electric Transmission Geographic Information System
ETOR	Estimated Time of Restoration
FA	Functional Area
FE	Functional Exercise
FEMA	Federal Emergency Management Agency
FERC	Federal Emergency Regulatory Commission
FIA	Fire Index Areas

Acronym	Definition
FPI	Fire Potential Index
FSE	Full Scale Exercise
GERP	Gas Emergency Response Plan
GO	General Order
HAWC	Hazard Awareness and Warning Center
HHZ	High Hazard Zone
HFTD	High Fire Threat District
HFRA	High Fire Risk Area
HR	Human Resources
HR ER TM	Human Resources Emergency Response Team
HSEEP	Homeland Security Exercise and Evaluation Program
I&I	Intelligence and Investigations
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IPP	Integrated Preparedness Plan
ILT	Instructor Lead Training
IMT	Incident Management Teams
JFO	Joint Field Office
LEEP	Local Electrical Emergency Plan
MTCC	Materials and Transportation Coordination Center
NERC	North American Electric Reliability Corporation
NIMS	National Incident Management System
NPS	National Park Service
NRC	Nuclear Regulatory Commission
NRF	National Response Framework
OA	Operational Area
OEC	Operations Emergency Center
OIC	Officer in Charge
OSHA	Occupational Safety and Health
PAL	Project Activity Level
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code

Acronym	Definition
PSPS	Public Safety Power Shutoff
PSS	Public Safety Specialist
PUC	Public Utilities Code
REC	Regional Emergency Center
SEMS	Standard Emergency Management System
SIPT	Safety and Infrastructure Protection Teams
SOC	State Operations Center
TTX	Tabletop Exercise
UOC	Utilities Operations Center
USFS	United States Forest Service
USGS	United States Geological Survey
WBT	Web Based Training
WECC	Western Electricity Coordinating Council
WMP	Wildfire Mitigation Plan
WRMAA	Western Region Mutual Assistance Association

A.2 Glossary

Base Camp: A location external to existing company facilities where primary Logistics functions for an incident are coordinated and administered, which includes support personnel and facilities (e.g., dining, sleeping, laundry, and showers) for responding crews. An incident name or other designator is added to the words “Base Camp.” The Incident Command Post may be co-located with the base camp.

***Community Wildfire Safety Program*:** Created in 2018, the Community Wildfire Safety Program (CWSP) is an organization that bolsters wildfire prevention and emergency response efforts, working with our communities on new and enhanced safety measures and – longer term – hardening our electric system and integrating new technologies.

De-Energize: A deliberate shutdown of electricity from either transmission or distribution lines; this may be performed as the result of a PSPS Event, by PG&E to mitigate an unsafe condition, or upon request from an external agency (*e.g.,* California Department of Forestry and Fire Protection, California Office of Emergency Services or Cal OES, and Bureau of Land Management or BLM).

Event: Planned, non-emergency activity. The Incident Command System can be used as the management system for a wide range of events, (*e.g.*, parades, concerts, sporting events).

High-Fire Risk Area: A purpose-built map for use in scoping Public Safety Power Shutoff events identifying areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

Fire Potential Index: The PG&E Fire Potential Index (FPI) is a formulaic calculation used to predict fire danger expected for each fire index area within the PG&E service territory. This index is rated on a scale from R1 to R5+ and cycles each calendar day at midnight (2400 hours).

Fire Index Areas (FIA): Subregions within the PG&E territory that are segmented by geographical location to support daily evaluation of environmental fire risk associated with operations, maintenance, or construction activities.

Fire Prevention Plan*:* PG&E’s preventative strategy and associated programs aimed at mitigating the risk of wildfires, specific to G.O. 166.

High Fire Threat District (HFTD): Areas adopted by the California Public Utilities Commission (CPUC) with elevated or extreme wildfire risk and in proximity to communities at risk.

High Fire Risk Area: A purpose-built map for use in scoping Public Safety Power Shutoff events identifying areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

Hazard Awareness & Warning Center (HAWC): PG&E’s centralized awareness and warning center set up to detect, assess, mitigate, communicate, and respond to all-hazards threats.

HFTD Zone 1 - High Hazard Zones (HHZs): Tier 1 High Hazard Zones (HHZs) on the U.S. Forest Service-CAL FIRE joint map of Tree Mortality High Hazard Zones are areas where tree mortality directly coincides with critical infrastructure outside Tier 2 and Tier 3 of the HFTD Map.

Hot Site: Duplicate of the original site of the organization, with full computer systems as well as near-complete backups of user data. Following a disruption to the original site, the hot site exists so that the organization can relocate with minimal losses to normal operations. Ideally, a hot site will be immediately available under any circumstances except any physical damage rendering the site unsafe.

Incident: An unexpected occurrence, either caused by human or natural phenomena, which requires action by emergency service personnel to prevent or minimize loss of life or damage to property or natural resources.

Incident Action Plan (IAP): Contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. The IAP may be oral or written. When written, the plan may have several forms as attachments, (*e.g.*, traffic plan, safety plan, communications plan, or maps).

Incident Command Post (ICP): Location where the primary command functions are executed. The ICP may be co-located with the incident base or other incident facilities.

Incident Commander (IC): Individual responsible for the management of all incident operations at the incident site.

Incident Management Team (IMT): Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

Incident Objectives: Statements of guidance and direction necessary for selection of appropriate strategies and tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

Mutual Aid Agreement: Written agreement between agencies or jurisdictions where each party agrees to assist one another on request by providing personnel and equipment.

Public Safety Power Shutoff (PSPS): A PG&E program designed to prevent wildfire by deliberately de-energizing either transmission, distribution lines, or both, as a pre-emptive measure following a prescribed protocol that accounts for weather conditions and risk analysis.

Power Generation: Secures gas and electric energy supplies to serve.

Wildfire: Any fire, larger than three linear meters in diameter, which occurs or originates in an undeveloped or wildland area. Note that this does not include prescribed burns in this definition.

Safety And Infrastructure Protection Teams (SIPT): Provide additional personnel and resources to assist PG&E crews and protect critical utility infrastructure in PG&E service territory, particularly within areas at higher risk of wildfire.

Spot Fire: A small area of fire that is ignited from sparks and embers thrown from the main body of fire.

Appendix B. Fire Season Outdoor Work Fire Mitigation Form

Date:	**Tailboard Lead:**
Time Began:	**Lan Id:**
Time Ended:	**Location**
Topics Discussed (attach or identify all documents, handouts or videos provided viewed or discussed)	
Other (include a summary of what was discussed)	

ATTENDEES

Signature	Lan Id	Print Last Name	Signature	Lan Id

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