

2020 Wildfire Mitigation Plan Overview

Debbie Powell
Community Wildfire Safety Program



Together, Building
a Better California

2020 Wildfire Mitigation Plan (WMP) Overview

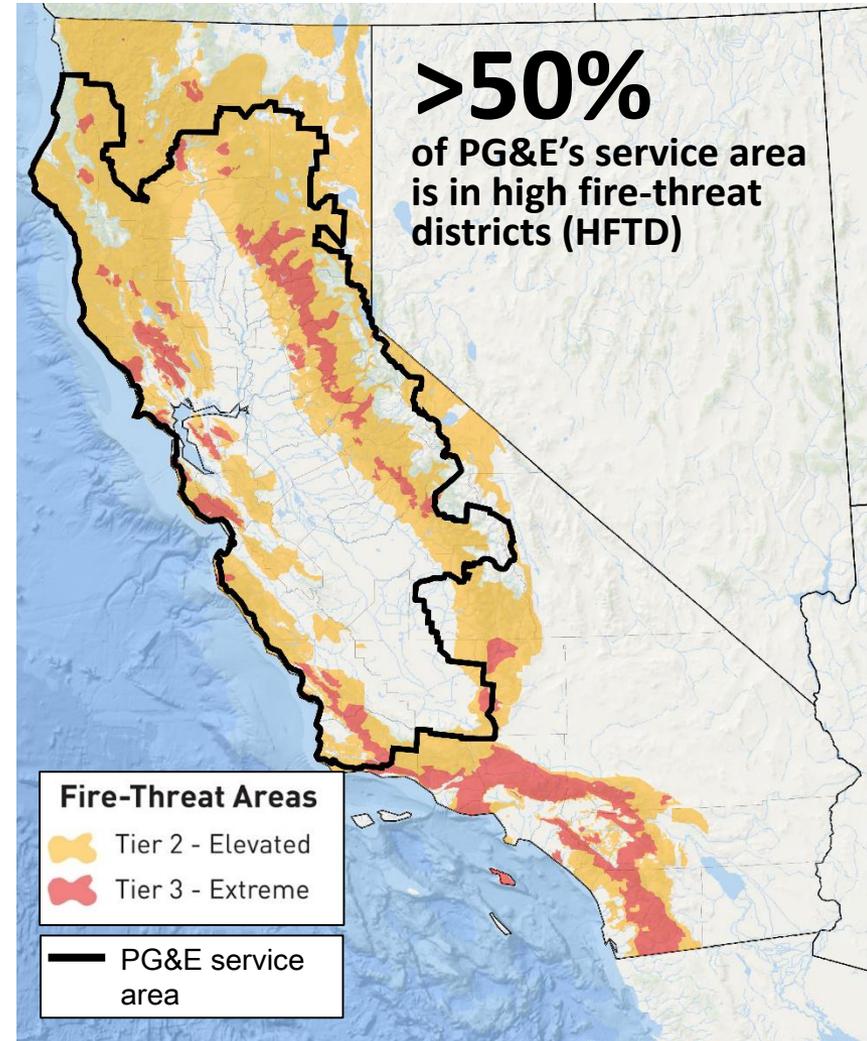
2020 WMP Objectives

- Reduce Wildfire Ignition Potential
- Improve Situational Awareness
- Reduce Impact of PSPS Events

Year-to-Date Progress

- WMP Programs
- Customer & Community Outreach

PG&E's COVID Response



Source: California Public Utilities Commission

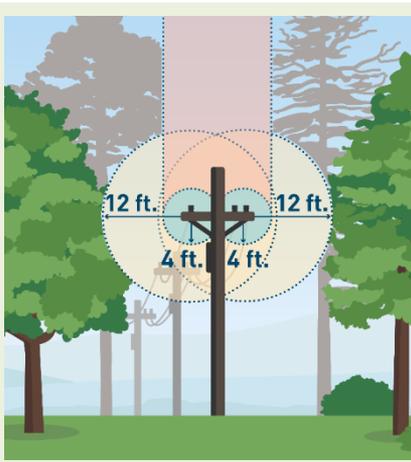
Objective #1: Reduce Wildfire Ignition Potential



Reducing the risk of catastrophic wildfires from electrical equipment by mitigating the known causes of ignitions.

Enhanced Vegetation Management

- Conduct 1,800 line-miles of 12 foot radial clearance and remove high-risk trees and overhangs
- Focus on expanding Rights-of-Way on lower voltage transmission to reduce wildfire risk and footprint of future PSPS events
- Clearance goes above and beyond State requirements



System Automation

- Continue to enable Supervisory Control and Data Acquisition (SCADA) devices and reclosers to allow operators to remotely prevent a line from automatically reenergizing after a fault
- Testing Rapid Earth Fault Current Limiter (REFCL) technology that can automatically reduce the electrical current in a downed wire.

Asset Repair and Inspection

- Incorporating enhanced inspection process and tools from 2019 Wildfire Safety Inspection Program into routine inspection program: annual inspection of Tier-3 areas and 3-year cycles for Tier-2

System Hardening

- Replacing 241 line-miles of existing overhead conductor through asset elimination, installing covered conductors with stronger and more resilient poles, or targeted undergrounding

Public Safety Power Shutoffs

- Utilizing PSPS during extremely high-risk conditions to eliminate ignition risks; 2020 PSPS events will be smaller in scope, shorter in duration, and smarter in performance

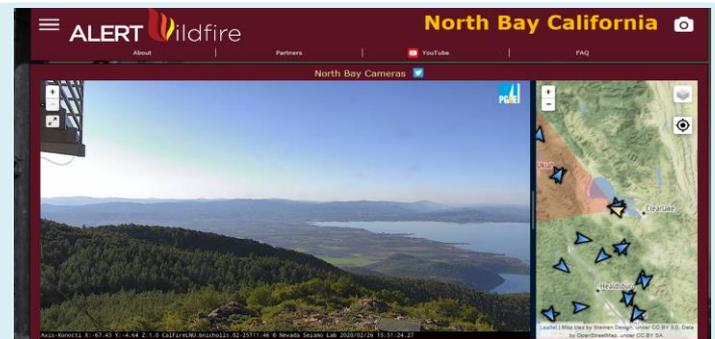
Objective #2: Improve Situational Awareness



Improving understanding of upcoming and real-time weather and fire conditions, to reduce fire ignitions, respond faster, and minimize PSPS event scope

Situational Awareness

- Create highly localized weather and fire risk forecasts (2x better granularity than 2019) and real-time conditions to identify high-risk locations, share with first responders and activate field response
- 400 weather stations this year, for a total of 1,000 by end of year
- 200 HD cameras this year, for a total of 335 by end of year



Wildfire Safety Operations Center and Meteorology



- Operate 24/7 Wildfire Safety Operations Center to monitor fire threats
- Coordinate and mobilize response efforts with first responders, government, media and others during potential or active wildfires
- Using satellite fire detection system that compiles data from 5 satellites and one of the largest, high-resolution climatological datasets in the utility industry
- Direct operational modifications and fire safety resources

Objective #3: Reduce Impact of PSPS



Make any future PSPS events smaller in size, shorter in length and smarter for our customers.



**SMALLER
IN SIZE**

GOAL
Reduce the number of customers impacted by PSPS events by one-third compared to 2019

INITIATIVES
<ul style="list-style-type: none"> Installing sectionalizing devices on the transmission and distribution systems capable of re-directing power and limiting the size of outages Developing microgrids that use generators to keep the lights on Conducting targeted undergrounding as part of system hardening “Islanding” Humboldt Bay Generating Station to provide power to the local community during nearby PSPS events



**SHORTER
IN LENGTH**

Restore customers twice as fast after severe weather has passed

<ul style="list-style-type: none"> Adding more field crews to speed inspection of lines for restoration Expanding helicopter fleet from 35 to 65 for aerial line inspections Commissioning two new airplanes for aerial line inspections Utilizing infrared equipment to inspect at night



**SMARTER
FOR CUSTOMERS**

Provide more accurate/timely communications and additional resources
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<ul style="list-style-type: none"> Enhancing meteorology technology to pinpoint location and timing of severe weather Bolstering website capacity Improving customer alerts and notifications Upgrading Community Resource Centers Improving coordination with local agencies and critical service providers
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Deliver more assistance before, during and after a PSPS event

<ul style="list-style-type: none"> Working with the California Foundation for Independent Living Centers and other Community Based Organizations to support vulnerable customers Making it easier for eligible customers to join and stay in the Medical Baseline program Expanding in-language communications



Wildfire Mitigation Plan Progress

PROGRAM



2019
COMPLETE



2020
TARGET



2020
PROGRESS

SYSTEM HARDENING

Stronger poles, covered lines and/or targeted undergrounding

171

LINE MILES

241

LINE MILES

105

LINE MILES

ENHANCED VEGETATION MANAGEMENT

Inspecting, pruning and removing vegetation

2,498

LINE MILES

1,800

LINE MILES

939

LINE MILES

HIGH-DEFINITION CAMERAS

Improving real-time monitoring of high-risk areas and conditions

133

CAMERAS

200

CAMERAS

50

CAMERAS

WEATHER STATIONS

Enhancing weather forecasting and modeling

426

STATIONS

400

STATIONS

116

STATIONS

SECTIONALIZING DEVICES

Separating the grid into smaller sections to increase flexibility and reduce customer impact of PSPS events

287

DEVICES

592

DEVICES

216

DEVICES

TRANSMISSION LINE SWITCHES

Enabling targeted transmission outages to lessen downstream customer impacts

0

DEVICES

23

DEVICES

29

DEVICES

COMMUNITY RESOURCE CENTERS (CRCs)

Safe, energized locations for customers to receive basic resources and information

111

SITES ACTIVATED

80*

SITES TARGETED

5*

SITE READY

DATA AS OF 5/23

* PG&E originally targeted 201 CRC sites for the 2020 PSPS season, due to COVID we have adjusted PSPS customer support programs during this time including creating multiple deployment strategies for CRCs (hardened sites, temporary sites, open-air tents and mobile, vehicle-based CRCs).



Coordination with Cities/Counties/Tribes

2020 City/County/Tribal Engagement (Modified plan incorporating COVID-19 limitations)		
Outreach Type	Description	YTD Status
PSPS Listening Sessions	Met with cities, counties, tribes and critical service agencies to gather feedback and identify coordination opportunities.	36+ sessions completed 11 counties declined 6 not in scope (no 2019 PSPS impacts)
PSPS Advisory Committee	Established an advisory committee comprised of six rural/urban counties, two tribal agencies and representatives from League of Cities and CSAC	4 meetings completed
Wildfire Safety Working Sessions	Scheduling web-based working sessions (originally planned to be in-person) with tribes and all 47 counties across the service territory to share county-level information.	26 sessions completed 3 scheduled 3 on hold due to Covid-19 4 pending 2 declined 11 counties with minimal or no PSPS impacts in 2019; outreach began 5/22
Regional Working Groups	Establishing regularly scheduled regional working groups across PG&E's service territory for PSPS readiness.	Targeting to begin in June
PSPS Planning Exercises	Conducting regionally-based PSPS exercises with agencies to enhance readiness, training and coordination.	3 scheduled (starting in June)

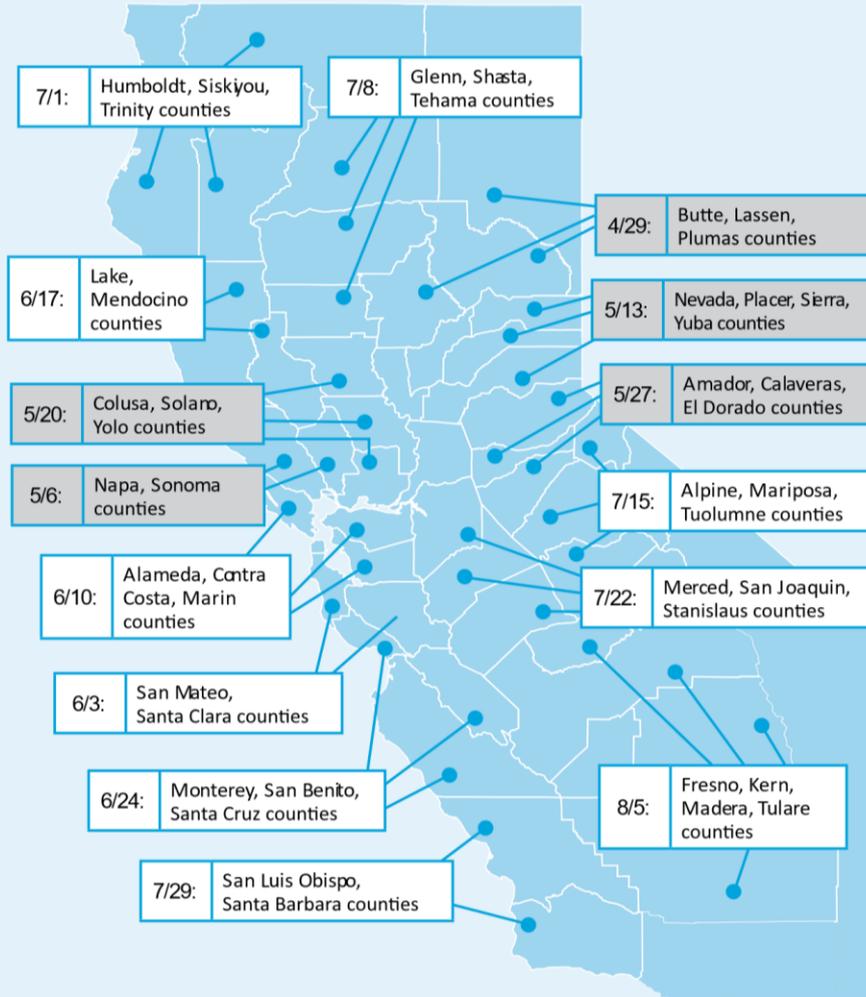


Customer Outreach: Local Webinars and People With Disabilities and Aging Advisory Council

CWSP Local Customer Webinars

PG&E is hosting local webinars with customers and communities to discuss wildfire safety initiatives, ask questions and gather feedback.

- 5 COMPLETED
- 1,915 ATTENDEES
- 10 SCHEDULED



People With Disabilities and Aging Advisory Council (PWDAAC)

PG&E established the People With Disabilities and Aging Advisory Council (PWDAAC) to help improve support and allow for feedback from vulnerable and Access and Functional Needs (AFN) customers.

Status

Meetings hosted on **4/30** and **5/29** (plan to host at least quarterly)



PG&E's COVID Response

1. PG&E's EOC has been activated continuously since late February to direct company activities and response; we moved quickly to protect our customers and workers with appropriate safety protocols
2. Wildfire work has remained prioritized as essential and critical throughout our pandemic response
3. PG&E has modified our work plans and scheduling to minimize customer outages in recognition of customers sheltering at home
4. Wildfire & PSPS-related work remain on track despite logistical challenges and some disruptions with contractors and suppliers availability and capabilities
5. PG&E has pivoted customer and agency engagement strategies to virtual / webinar (from in-person)
6. PG&E has adjusted PSPS customer support programs during this time including:
 - Creating multiple deployment strategies for CRCs (hardened sites, temporary sites, open-air tents and mobile, vehicle-based CRCs)
 - Suspending requirement for physician signature to join or stay on the Medical Baseline program

What has not changed: Our efforts and focus on operating our system safely to reduce wildfire risk while minimizing the impacts of PSPS on our customers.

PG&E is ready for wildfire season and ready to execute a PSPS event, if needed, at any time.

Thank You

For questions regarding **PG&E's Community Wildfire Safety Program**, please:



Call us at **1-866-743-6589**



Email us at wildfiresafety@pge.com



Visit [pge.com/wildfiresafety](https://www.pge.com/wildfiresafety)



Visit www.pge.com/wildfiremitigationplan for a copy of the 2020 WMP and related details



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Appendix



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Reducing PSPS Footprint: Sonoma County Example

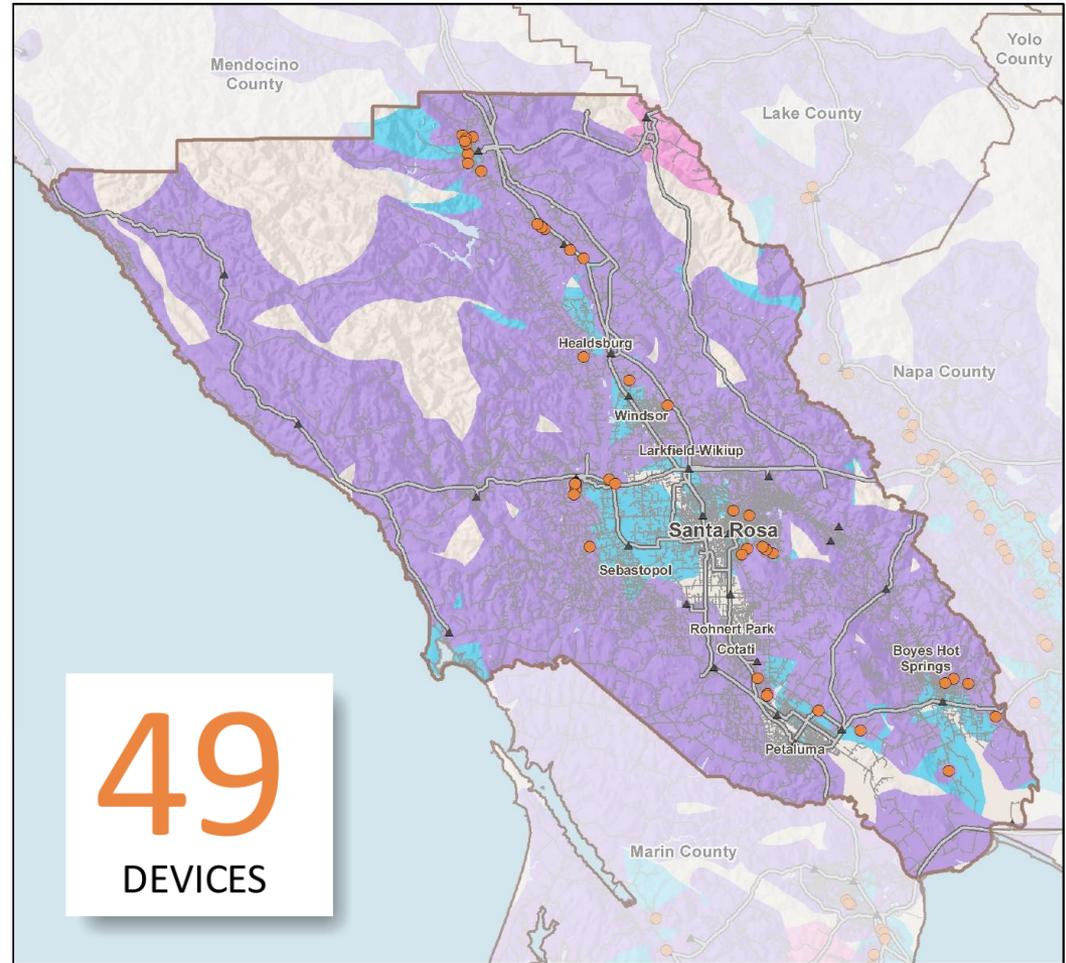
LEGEND:

- Distribution sectionalizing devices installed in late 2019 or planned in 2020
- Area potentially removed from PSPS scope due to planned sectionalizing (distribution level event only)
- New area now in PSPS scope
- No change from 2019
- ▲ PG&E Substation

Electric Transmission Line

- 60 kV; 70 kV; 115 kV only
- Electric Distribution Line

Note: Map reflects projects in planning and/or underway and is subject to change. Some data points may overlap.



All data is preliminary and based on early 2020 work planning. Data as of April 2020.



Community Resource Centers (CRCs)

- Working with counties and tribes to **streamline and enhance the overall CRC process**
- Determining **resources and amenities**
- Creating **multiple deployment strategies** (hardened sites, temporary sites, open-air tents and mobile, vehicle-based)



Access and Functional Needs (AFN) Advisory Council

- Established an AFN Advisory Council to inform **outreach, programs, and resources** for the **AFN community and medically-sensitive populations**; meetings hosted on **4/30** and **5/29**
- Council consists of members that can **speak and act on behalf of the represented organization**
- Additional consultation will continue through pre-existing channels for engagement **with low income, limited English communities, tribes, etc.**



California Foundation for Independent Living Centers (CFILC)

- Funding the **California Foundation for Independent Living Centers, or CFILC**, to assist the **Access and Functional Needs, or AFN, population**, who are most vulnerable when the power goes out.
- The pilot program, **Disaster Access and Resources Program**, provides qualifying customers who use electrical medical devices **access to backup portable batteries**.
- The program will also provide transportation resources, assistive communication equipment, hotel and food vouchers, emergency planning and education and Medical Baseline program enrollment assistance.
- Customers interested in the pilot program can **visit their local independent living center** or **disabilitydisasteraccess.org** for more information.



Medical Baseline

- Partnering with cities, counties, tribes and agencies to share medical baseline customer information for **emergency preparedness planning**
- Making it easier for eligible customers to **join and stay in the Medical Baseline program**