

WELCOME - HOUSEKEEPING

Thank you for joining us this evening.

This meeting is being recorded.

Please note, your camera, microphone, and reactions are disabled for this meeting.

To add closed captioning, please click the three dots found at the top right of the tool bar. In the dropdown menu, select turn on live captions.

To submit a question, use the **Q&A window** throughout the session.

Please only submit questions that are relevant to the presentation and topics being presented.



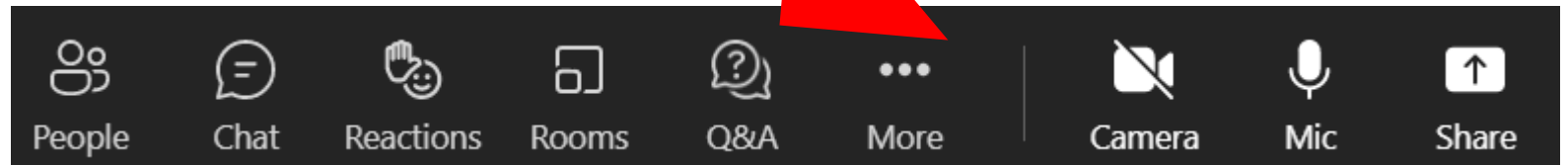
Our Commitment to California

Keeping our communities safe from wildfires

HOW TO SUBMIT A QUESTION

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PRESENTERS



Michael Ramirez
Emergency Services Manager
San Bernardino County



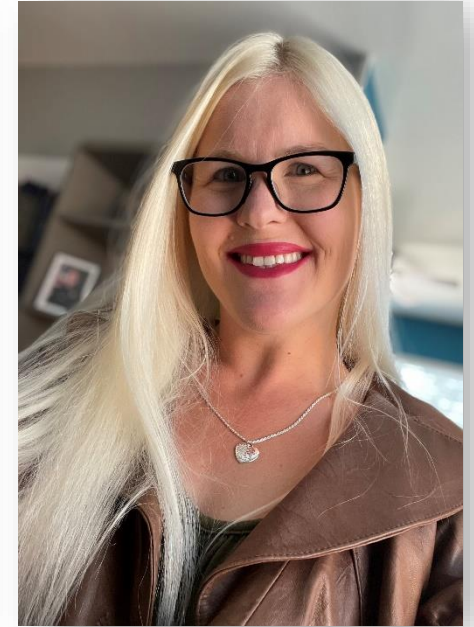
Jennifer Cusack
Government Relations
Manager
Local Public Affairs



Greg Ferree
Vice President
Vegetation Inspections &
Operational Services



**Cameron
McPherson**
Senior Manager
Wildfire Safety



Danielle Anderson
Senior Manager
Customer Care & Access and
Functional Needs

AGENDA

- **2021 Wildfire Season**
- **SCE's Wildfire Mitigation Activities**
- **Public Safety Power Shutoffs**
- **Reducing the Need for PSPS**
- **PSPS Communications**
- **Customer Programs & Resources**
- **Q&A**

BE PREPARED FOR POTENTIAL EMERGENCIES



SAN BERNARDINO COUNTY

BEING PREPARED

for an emergency can help save your loved ones.

Prepare your family's emergency plan and go-kit in just a few minutes with the Ready SB County Preparedness App!

An emergency can happen at any time.

Have a Plan & Make a Kit

You can help your family be prepared for any emergency situation with a safety preparedness plan, an emergency kit with some basic supplies and advance planning. Whether a storm, an earthquake, a wildfire or a flood comes our way, preparedness will help everyone cope better and stay safer. Learn more at sce.com/beprepared.

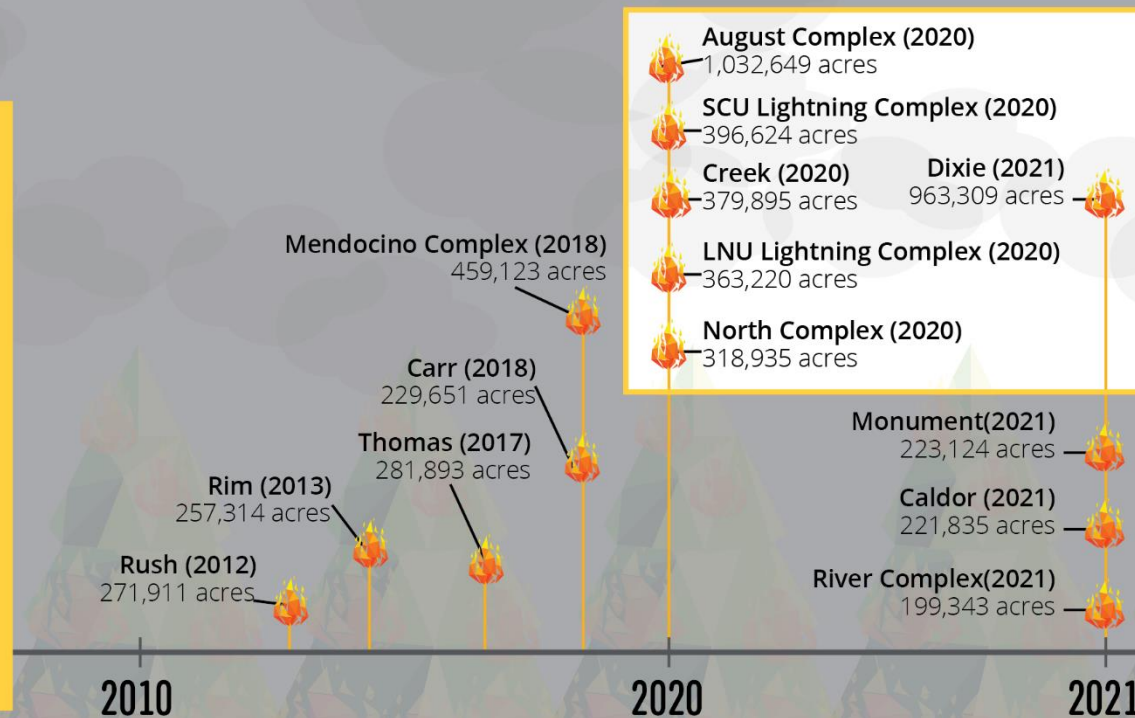
San Bernardino County Emergency Preparedness Links:

- <https://sbcfire.org/alertwarning/>
- <http://www.sbcounty.gov/sbcfire/Tens/TensContact.aspx>
- <https://sbcfire.org/readysctgofire/>

2021 WILDFIRE SEASON

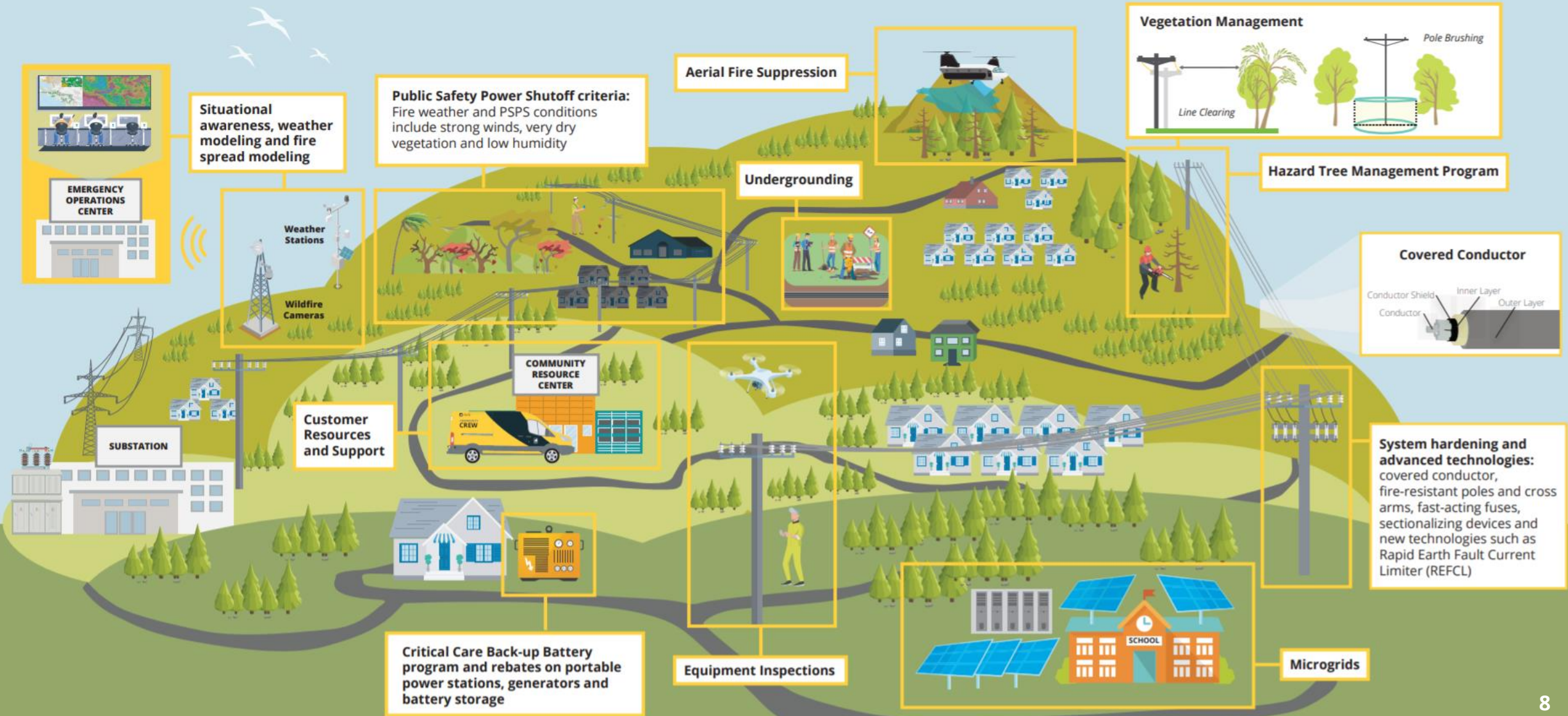
California experienced another year of extreme wildfire activity, exacerbated by intensifying drought. Dry vegetation and strong winds continue to threaten our communities during year-round fire season

**6 OF THE 7
LARGEST CALIFORNIA
WILDFIRES
HAVE HAPPENED SINCE
2020***



*Source: https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf

REDUCING WILDFIRE RISK IN OUR COMMUNITIES



INSULATED WIRE IS ONE OF THE MOST EFFECTIVE MEASURES TO REDUCE WILDFIRE & PSPS RISKS IN SCE'S SERVICE AREA

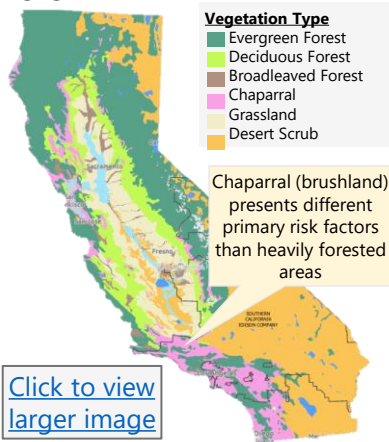
Insulated wire is a very valuable tool to expeditiously and cost-effectively reduce wildfire risk specific to SCE

Undergrounding considered for certain locations based on risk profile

Geography

Contact from vegetation and other objects is a key risk factor in much of SCE's area

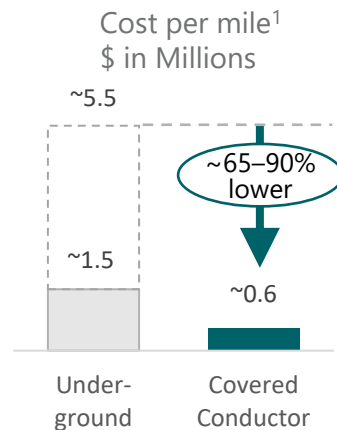
Insulated wire is very effective in mitigating these risks



Cost to Implement

Insulated wire installation costs significantly lower than undergrounding

Undergrounding costs vary depending on construction methods, locational, and operational factors

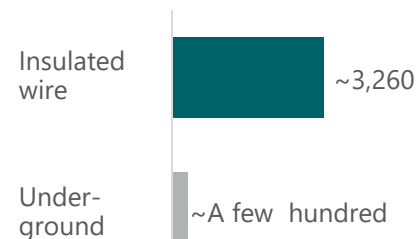


Execution Speed

Insulated wire can be deployed within 16–24+ months, and sometimes faster

Undergrounding generally takes 25–48+ months

Actual installed miles of insulated wire² vs. hypothetical undergrounded miles³



Unique Factors

Undergrounding is considered where there is:

- High burn frequency
- Limited egress
- Wind speeds exceeding insulated wire PSPS thresholds
- Exceptionally high potential consequence (>10,000 acres)

Several hundred miles currently under consideration for additional enhanced mitigation, including undergrounding

1. Based on data provided in SCE's 2022 WMP Update

2. Through March 31, 2022

3. Undergrounded miles is a hypothetical approximation of underground lines that could have been constructed through March 31, 2022, based on SCE's assumptions and experience with planning and executing undergrounding projects

REDUCING WILDFIRE RISK & PSPS IMPACTS – BY THE NUMBERS

SCE estimates its wildfire mitigation and PSPS measures have reduced the risk of damage from catastrophic¹ wildfires by **65% to 70%**, relative to pre-2018 levels.



ONGOING WILDFIRE MITIGATION EFFORTS

~**34%** of overhead wire in high fire risk areas replaced with insulated wire²

Suite of mitigations include system hardening, annual equipment inspections, vegetation management and situational awareness measures



IMPROVED PSPS EXECUTION & CUSTOMER SUPPORT

73% reduction in PSPS outage time in 2021 on frequently impacted circuits³

81,000 customers removed from scope from exceptions and switching protocols

64 Community Resource Centers available



AERIAL FIRE SUPPRESSION SUPPORT

Contributed \$18 million for the creation of the quick reaction force of the world's largest helitankers

Used on more than 50 fires in 2021, helping to suppress fires in its early stages

1. A wildfire directly causing one or more deaths, damaging or destroying more than 500 structures, or burning more than 140,000 acres of land

2. Through March 31, 2022

3. Based on 2021 weather and fuel conditions

PUBLIC SAFETY POWER SHUTOFFS

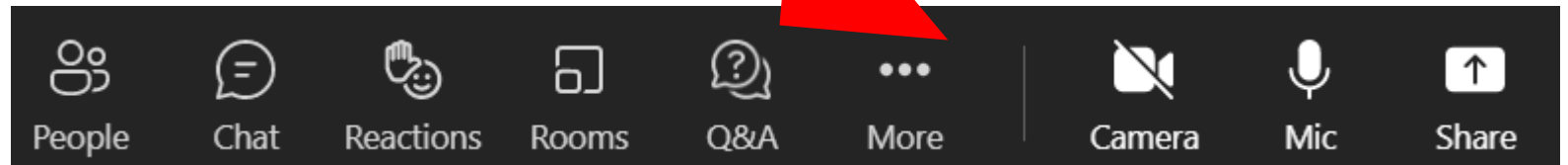
- A tool of last resort used during dangerous fire conditions (weather and fuels)
- De-energizing lines to prevent a spark from our equipment starting a significant wildfire
- Primarily impacts circuits in high fire risk areas
- Use of multiple methods to notify customers and partners in affected areas before, during and after a PSPS event
- In 2021, continued PSPS improvements and reduced frequency, scope and duration of PSPS



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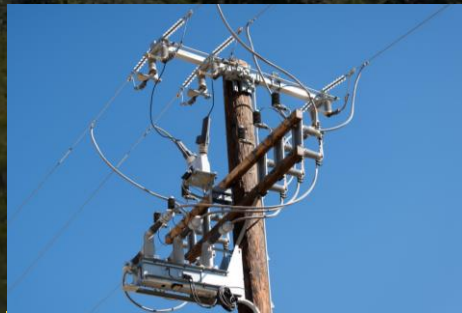
REDUCING THE NEED FOR PSPS

2021 ACHIEVEMENTS AND 2022 PLANS



Insulated Wire

Replaced an additional **1,500** miles of bare wire with insulated wire; **700** miles of expedited grid hardening to raise PSPS threshold prior to peak wind season. Plan to replace **1,100** miles in 2022; **270** miles of expedited grid hardening



Segmentation

Installed **23** additional remote-controlled sectionalizing devices to segment and isolate circuits during PSPS. Plan to add **15** devices in 2022.



Weather Stations

Installed **400** additional weather stations for improved forecasting and accuracy of PSPS operations. Plan to add **150** weather stations in 2022.



Switching Protocols

Removed **81,000** customers from PSPS scope through exceptions and switching protocols



Operational Protocols

Utilized up-to-date information on ground conditions (e.g., lack of vegetation) to assess wildfire threat and the need for PSPS

2021 PSPS EVENTS

Service Area Compared to 2020

Statistics	Customers Interrupted	Circuit Interruptions	Customer Minutes of Interruption
2020 Fire Season	~348K	~584	~388M
2021 Fire Season	~85K	~124	~105M
Delta	↓76%	↓79%	↓73%

San Bernardino County Compared to 2020

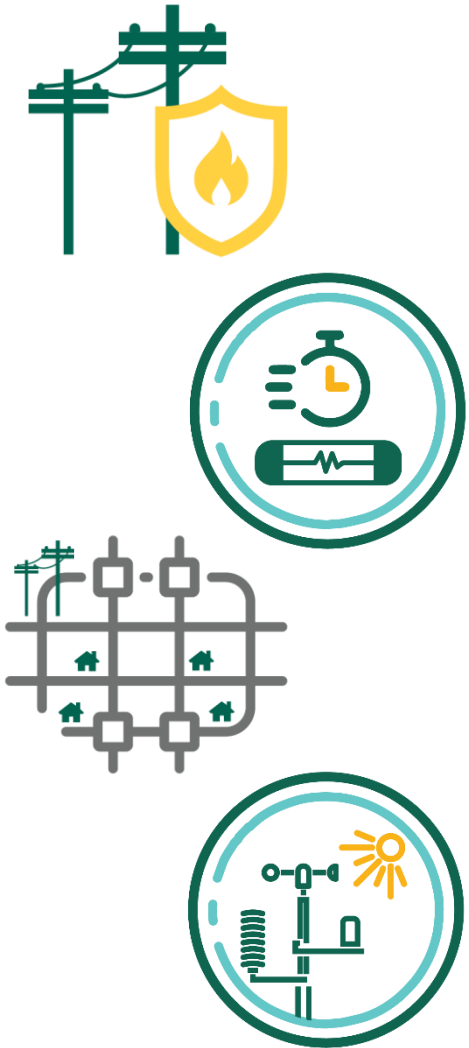
Statistics	Customers Interrupted	Circuit Interruptions	Customer Minutes of Interruption
2020 Fire Season	~65K	~107	~53M
2021 Fire Season	~11K	~24	~23M
Delta	↓83%	↓78%	↓56%

56%

REDUCTION IN CUSTOMER MINUTES OF INTERRUPTION IN SAN BERNARDINO COUNTY

EXPEDITED GRID HARDENING

ON CIRCUITS IMPACTED BY PSPS IN SAN BERNARDINO COUNTY



Completed in 2021

- Expedited installation of*:
 - **54** miles of insulated wire
 - **3** sectionalizing devices
 - **1** weather stations
- Removed **5** circuits and **5** circuit segments from PSPS consideration
- Raised PSPS wind threshold on **9** circuits

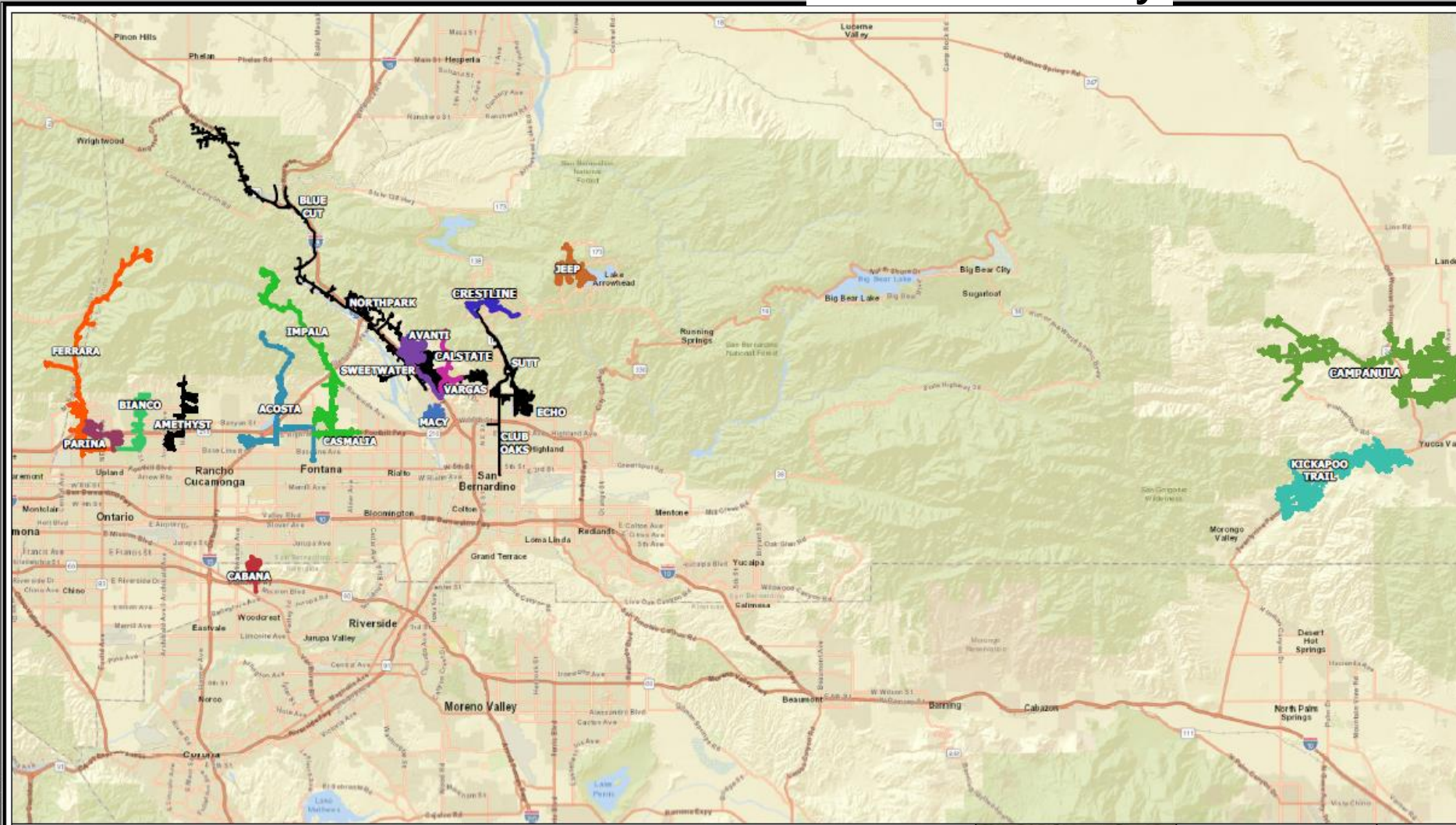
*Note: Number of total installed on all circuits in the county may be higher

Plans for 2022

- Expedite installation of:
 - **86** miles of insulated wire
 - **1** weather station
- Removed **1** circuit from PSPS consideration
- Raise PSPS wind threshold on **5** circuit segments and **1** circuit

Target Completion Date:
Oct. 1, 2022

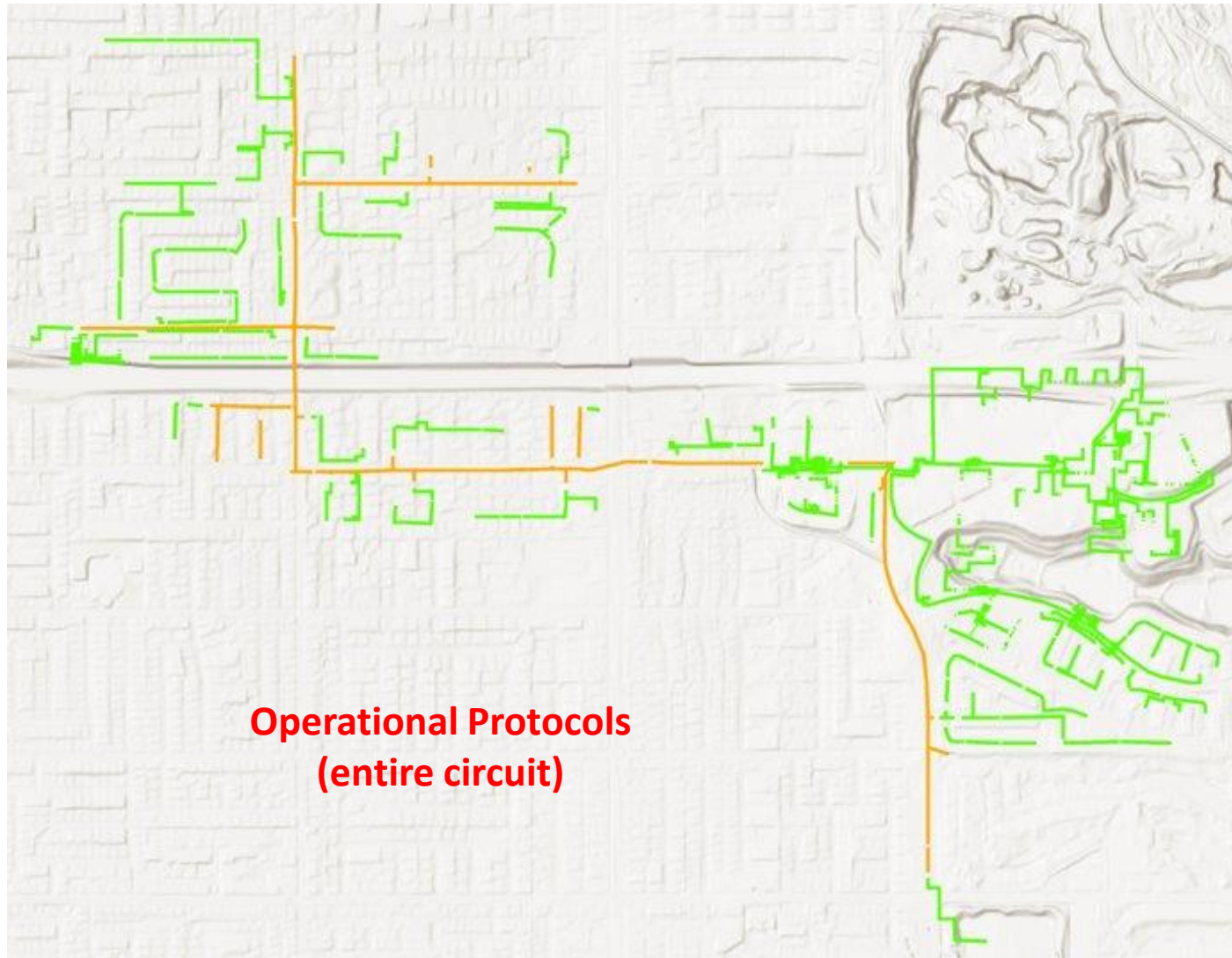
Identified Circuits for Expedited Grid Hardening in San Bernardino County



SAN BERNARDINO COUNTY

Scale: 1:50,000
Date: 5/15/2022
File Name: SanBernCo.mxd
Version #
Created By
Geospatial Analysts
Geomatics | Central Field Services

EXAMPLE OF REDUCING THE NEED FOR PSPS



Circuit: Parina

Community: Rancho Cucamonga,
Upland

Planned Work:

- Implement operational protocols to raise PSPS windspeed thresholds

Expected Completion Date:

- 10/1/2022

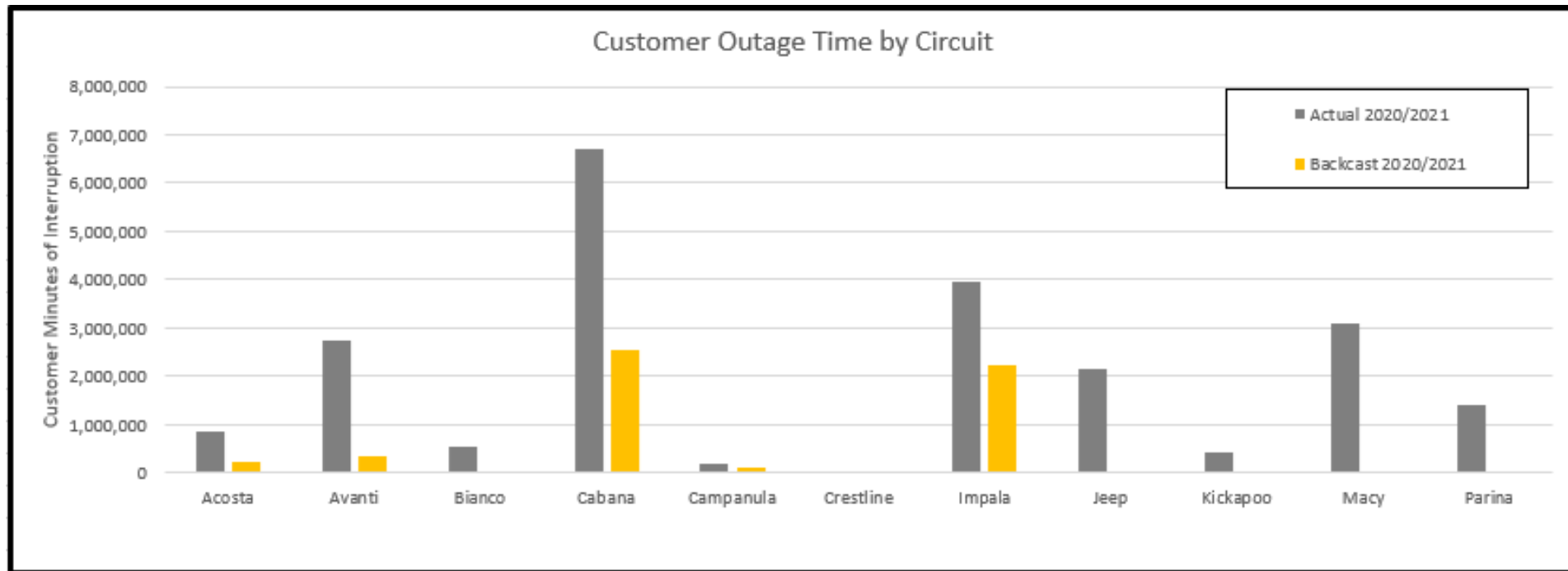
Expected Improvements:

- **100% reduction** in customer outage time, assuming the same weather conditions in 2020

For circuit details and status, visit:
sce.com/pspsenhancements

EXPECTED IMPROVEMENTS

With the implementation of our plans this year, we expect to see a **75% reduction in customer outage time** across these PSPS impacted circuits in San Bernardino County communities compared to 2020 and 2021, assuming the same weather conditions



Updated: 05-18-2022

- 1) PSPS impacted circuits are circuits that have experienced one or more PSPS related outages in 2019-2021
- 2) Customer outage time is measured as total Customer Minutes of Interruption (CMI)
- 3) The Crestline circuit planned work is only a weather station for which benefits cannot be calculated

PSPS COMMUNICATIONS

Notifications

- SCE provides PSPS notifications through various communication channels
 - SCE Account Holders (email, text, and voice call)
 - Address Level Alerts
- Sign up to stay informed before, during and after a PSPS event

SCE Outage Map

- Consolidated outage map that incorporates PSPS outages

Power Outages

Search by address, city, county or ZIP

[Click here to enter the outage number and check the status](#)

Current Outages ▼
28 Outages | 1,065 Customers Impacted

Upcoming Scheduled Outages ▼
1,531 Outages Scheduled | 68,293 Customers Possibly Impacted

Public Safety Power Shutoff (PSPS)
Search for an address to see specific PSPS details or see county-level details [below](#).

Not Seeing Your Outage? Report

Last Updated: 5/2/2022 - 6:02 PM PST

Outage Alerts
Stay informed about unplanned repair and planned maintenance outages. Get Alerts >

Community Support

Resource Centers Crew Vehicles Further Assistance

SCE Community Resource Centers are available to support customers during a Public Safety Power Shutoffs... [More](#) ▼

SCE CUSTOMER PROGRAMS & RESOURCES



CUSTOMER RESOURCE CENTERS & COMMUNITY CREW VEHICLES

- Services offered: information, charging of mobile devices, assistive technology/medical devices, PSPS outage alert enrollment support, access to water, light snacks, ice and ice vouchers, restrooms, and small insulated bags to keep medication cool
- Translations services for over 120 languages including American Sign Language (ASL)



CUSTOMER PROGRAMS

- Partnered with 211 to help customers with Access and Functional Needs (AFN) develop a resiliency plan and enroll in eligible assistance programs
- 211 provides specialized referrals for customers with AFN experiencing PSPS. Services include connecting customers to shelf-stable food, hot meal delivery, transportation and/or temporary shelter
- SCE will improve communication methods, including videos utilizing ASL for marketing and PSPS notifications



CUSTOMER RESILIENCY EQUIPMENT

- Critical Care Backup Battery program and the In-Event Battery Loan pilot provide eligible customers with a portable backup battery to power assistive technology/medical devices during a PSPS event
- Rebates on portable batteries and generators for customers residing in high fire risk areas on marketplace.sce.com

Website: [sce.com/wildfire](https://www.sce.com/wildfire)
Energized by Edison Stories & Videos: [edison.com/wildfire-safety](https://www.edison.com/wildfire-safety)

Email: wildfireoutreach@sce.com
Social Media: @SCE on Twitter & Facebook
SCE Customer Support: 1-800-655-4555

LEARN MORE



- Visit our website to learn more about our wildfire safety efforts and Public Safety Power Shutoffs (PSPS)
- Provide feedback through the survey

SIGN UP



- PSPS alerts
- SCE's Medical Baseline program
- SCE programs and rebates

BE PREPARED

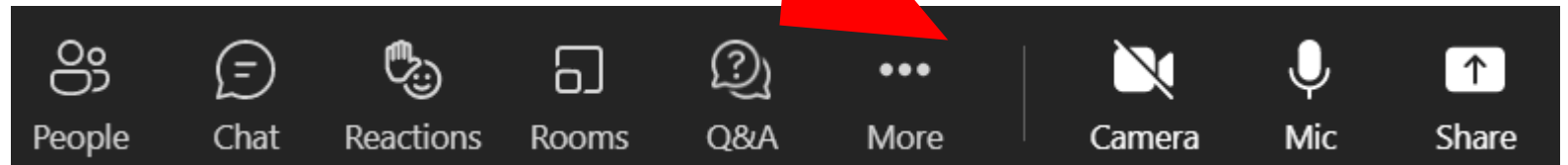


- Be prepared with a safety preparedness plan, some basic supplies and advance planning
- Power outage tips

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THANK YOU

Website: sce.com/wildfire

Energized by Edison Stories & Videos: edison.com/wildfire-safety

Email: wildfireoutreach@sce.com

Social Media: [@SCE](#) on Twitter & Facebook

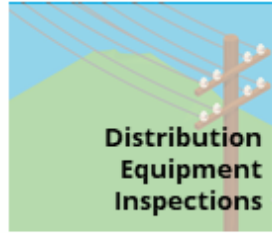
SCE Customer Support: 1-800-655-4555

ADDITIONAL RESOURCES



Wildfire Mitigation Activities **SERVICE AREA**

Data as of 12/31/21



2021
Completed/Target
179,600/163,000
inspections

✓ **110%**
completed

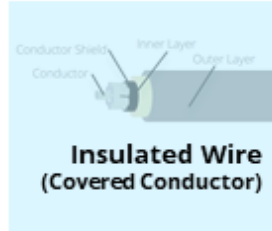
Completed
Since 2018
764,000+
inspections



2021
Completed/Target
20,800/16,800
inspections

✓ **124%**
completed

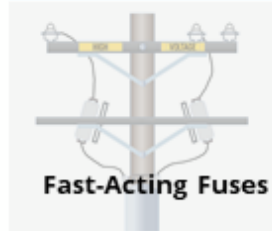
Completed
Since 2018
106,900+
inspections



2021
Completed/Target
1,500/1,000
circuit miles installed

✓ **150%**
completed

Completed
Since 2018
2,900+
circuit miles installed



2021
Completed/Target
350/330
fuses installed or
replaced

✓ **106%**
completed

Completed
Since 2018
13,300+
fuses installed or
replaced



2021
Completed/Target
131,400/120,000
trees assessed

✓ **110%**
completed

Completed
Since 2018
359,900+
trees assessed



2021
Completed/Target
400/375
weather stations
installed

➔ **107%**
completed

Completed
Since 2018
1,460+
weather stations
installed



Cameras currently provide
visibility to about 90% of our
high fire risk areas (HFRA) and
the planned additional cameras
in 2022 and beyond will increase
coverage to nearly all of HFRA

Completed
Since 2018
166
cameras installed



SCE contributed \$18 million to support the creation of
a quick reaction force of aerial firefighting assets
across counties in SCE's service area to coordinate
and reach wildfires in their early stages. These unique
water and fire retardant dropping helitankers have
the capability to operate day and night.



2021
Completed
6,000/3,600
batteries provided
to eligible customers

✓ **167%**
completed

Completed Since
July 2020
6,740+
batteries provided
to eligible customers



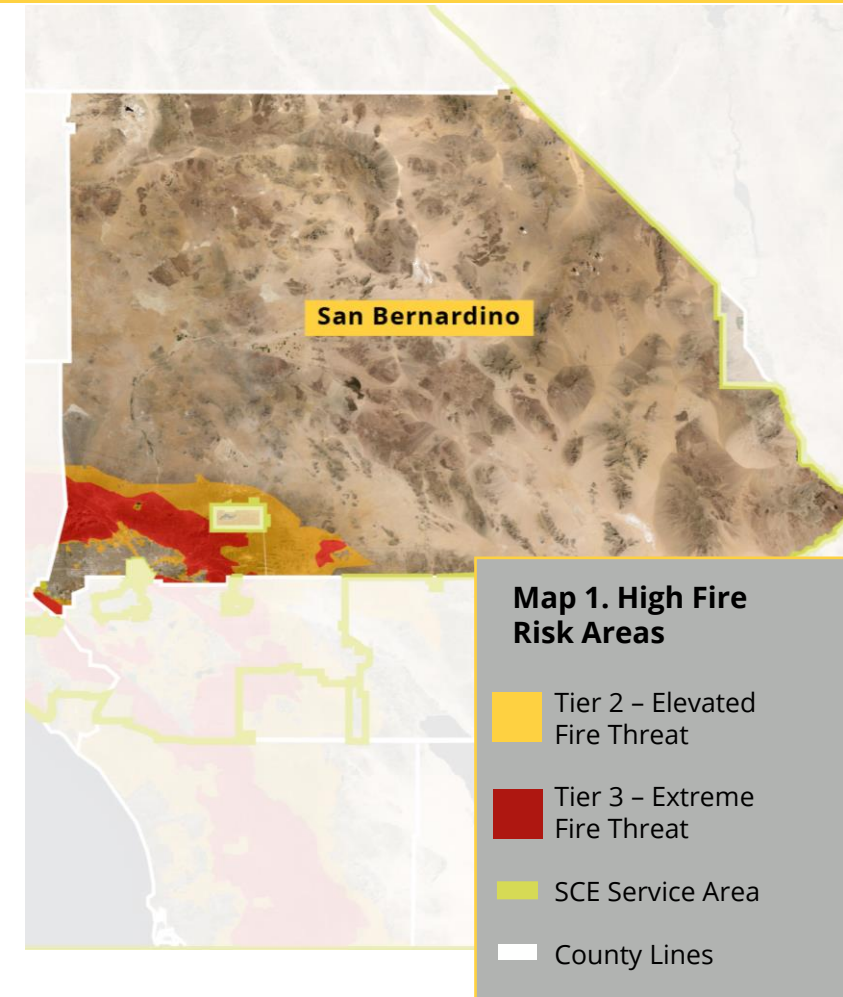
64
sites
available



8
vehicles
available

Completed

	2021	SINCE 2018
DISTRIBUTION EQUIPMENT INSPECTIONS	28,795 inspections	121,840 inspections
TRANSMISSION EQUIPMENT INSPECTIONS	2,238 inspections	13,259 inspections
COVERED CONDUCTOR	213 circuit miles installed	255 circuit miles installed
FAST-ACTING FUSES	59 fuses installed or replaced	2,870 fuses installed or replaced
SECTIONALIZING DEVICES	3 devices installed	11 devices installed
HAZARD TREE MANAGEMENT	33,110 trees assessed	137,684 trees assessed
WEATHER STATIONS	59 weather stations installed	257 weather stations installed
HIGH-DEFINITION WILDFIRE CAMERAS	22 cameras installed	
COMMUNITY RESOURCE CENTERS	12 sites available	
COMMUNITY CREW VEHICLES	8 vehicles available throughout SCE's service area	



SCE tracks wildfire initiative progress by SCE districts and extrapolates to the county level as a reasonable approximation. There may be additional circuit miles of covered conductor installed due to fire restoration work.

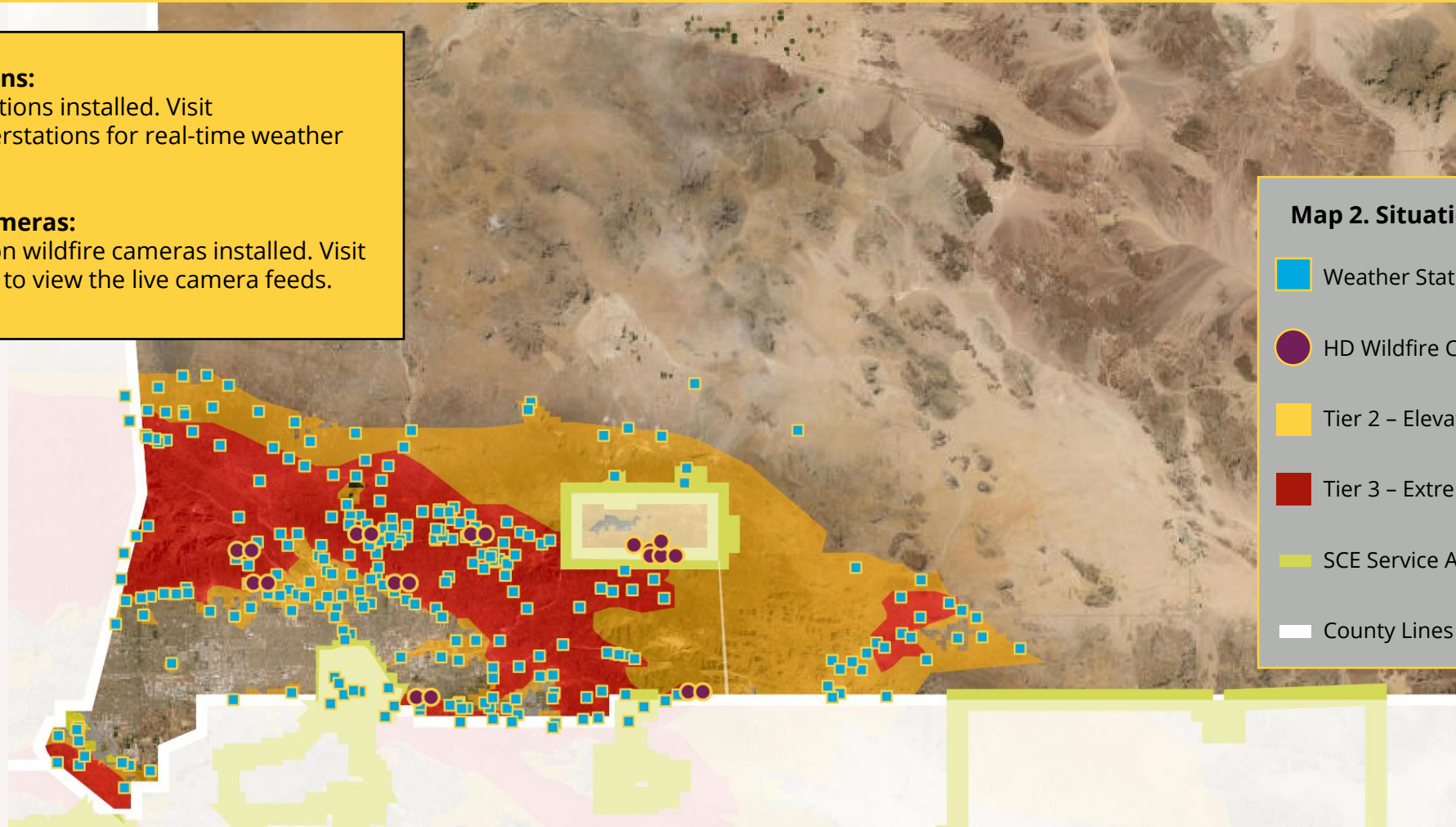
SCE's service area covers about **99%** of San Bernardino County. About **226,300** customer accounts are served by circuits in high fire risk areas.

Weather Stations:


257 weather stations installed. Visit sce.com/weatherstations for real-time weather data.

HD Wildfire Cameras:

22 high-definition wildfire cameras installed. Visit alertwildfire.org to view the live camera feeds.



Map 2. Situational Awareness

-  Weather Stations
-  HD Wildfire Cameras
-  Tier 2 – Elevated Fire Threat
-  Tier 3 – Extreme Fire Threat
-  SCE Service Area
-  County Lines

HELPFUL INFORMATION & RESOURCES

SCE Wildfire Webpage – [sce.com/wildfire](https://www.sce.com/wildfire)

SCE Notifications

- Sign up for PSPS alerts – [sce.com/pspsalerts](https://www.sce.com/pspsalerts)
- Sign up for the Energized by Edison Wildfire Mitigation Newsletter – energized.edison.com/newsletter

Situational Awareness

PSPS maps and information – [sce.com/psps](https://www.sce.com/psps)

- PSPS decision making – [sce.com/pspsdecisionmaking](https://www.sce.com/pspsdecisionmaking)
- Role of weather in PSPS – [sce.com/fireweather](https://www.sce.com/fireweather)
- CPUC wildfire maps – ia.cpuc.ca.gov/firemap/
- Wildfire cameras – [alertwildfire.org](https://www.alertwildfire.org)
- Weather stations – [sce.com/weatherstations](https://www.sce.com/weatherstations)

Preparedness

- SCE emergency preparedness – [sce.com/beprepared](https://www.sce.com/beprepared)
- CAL FIRE preparedness – [readyforwildfire.org](https://www.readyforwildfire.org)

Vegetation Management

- Vegetation Management – [sce.com/safety/power-lines](https://www.sce.com/safety/power-lines); contact 1-800-655-4555 or safetrees@sce.com

Customer Programs & Rebates

- SCE Customer Programs & Resources – [sce.com/customerresources](https://www.sce.com/customerresources)
- SCE Marketplace (rebates and programs) – [marketplace.sce.com](https://www.marketplace.sce.com)
- SCE Medical Baseline Program – [sce.com/medicalbaseline](https://www.sce.com/medicalbaseline)
- Self Generation Incentive Program (SGIP) – [sce.com/sgip](https://www.sce.com/sgip) or [selfgenca.com](https://www.selfgenca.com)
- SCE Customer Support: 1-800-655-4555

Community Meetings

- Join SCE's wildfire safety community meetings – [sce.com/wildfiresafetymeetings](https://www.sce.com/wildfiresafetymeetings)

Energized by Edison

- Stories and videos on SCE's wildfire mitigation efforts and PSPS – [edison.com/wildfire-safety](https://www.edison.com/wildfire-safety)

VIDEO: INSTALLING INSULATED WIRE AERIALLY



SOUTHERN CALIFORNIA
EDISON[®]