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2020 Wildfire Mitigation Plan Overview

March 4, 2020



Wildfire Risk in SDG&E's Service Area



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64%

Service territory area in HFTD*

3500

Overhead miles in HFTD

206K

Meters in HFTD

191

Weather stations and 30 additional ones planned in 2020

61%

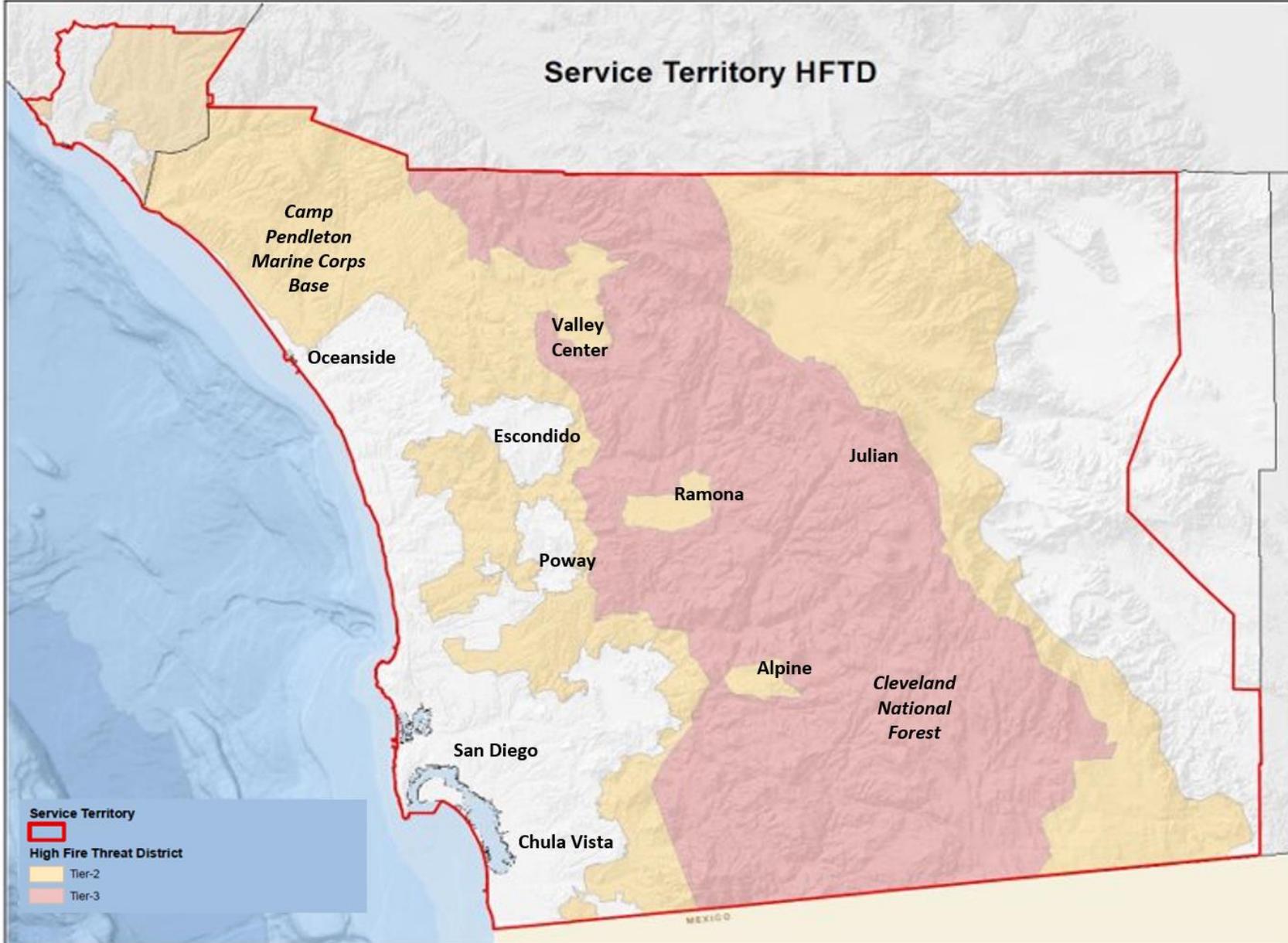
Service territory underground

53%

Inventory trees in HFTD

* HFTD – High Fire Threat District

Build a Better Business

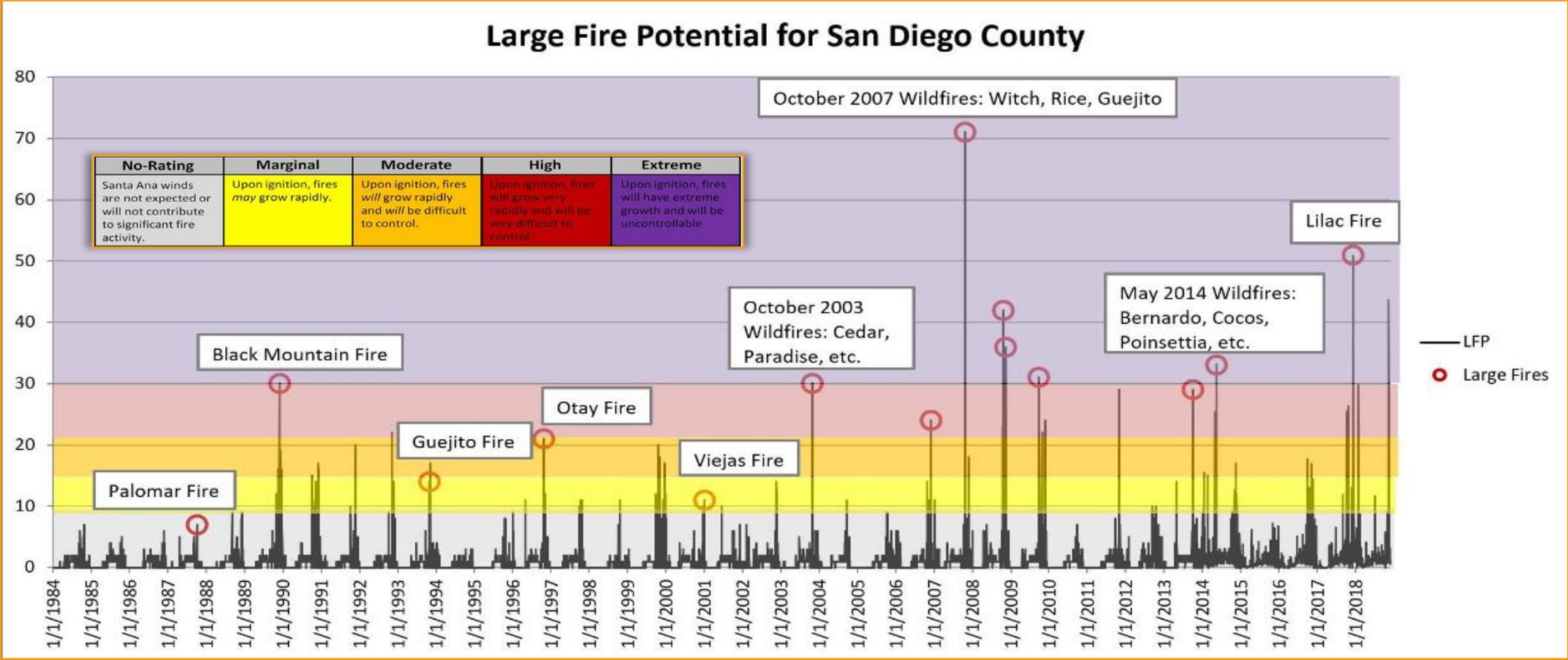


Impacts of Climate Change on Wildfire Risk



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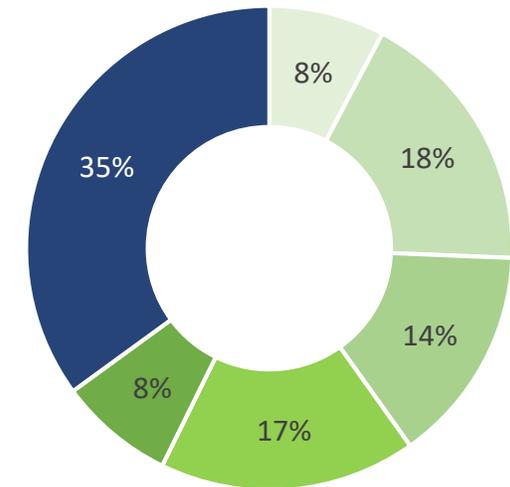
Climate change and rising temperatures has led to a longer and more common wildfire season in California. Since 2000, the state has experienced 15 of the 20 most destructive fires in its history.



Ignition Causes Over Last 5 Years

Service Territory Distribution and Transmission System

	2015	2016	2017	2018	4-Yr Avg (2015-2018)	2019	Reduction (2019 – 4yr Avg)	
Animal contact	3	2	1	2	2	1	-50%	↓
Balloon contact	3	3	6	8	5	1	-80%	↓
Vegetation contact	7	4	3	3	4.3	0	-100%	↓
Vehicle contact	6	4	4	3	4.3	3	-30%	↓
Other - Contact from object	3	2	2	2	2.3	0	-100%	↓
Equipment all types	8	12	5	6	7.8	10	29%	↑
Total	30	27	21	24	25.5	15	-41%	↓



- Animal contact
- Balloon contact
- Vegetation
- Vehicle contact
- Contact from Object - Other
- Equipment Failure

2020 WMP Objectives



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1. Continue to Reduce Wildfire Risk



2. Reduce PSPS Impacts

System Hardening

❖ 135 miles of strategic undergrounding

145 miles of overhead hardening including Covered Conductor

Situational Awareness

❖ 30 more weather stations in 2020

Enhance Alert SDG&E Camera Network

Enhanced Vegetation and Fuels Management

❖ 51,000 trees - 25' clearances

❖ Fuels Management – complete 1,500 poles

PSPS Enhancements – Sectionalizing Devices

❖ 30 switches to further reduce number of customers that experience PSPS

Microgrids (New)

❖ 7 microgrids to provide power to communities impacted by PSPS

Advanced Protection

❖ Enable 20 substations with capabilities to support early detection of faults

Customer Resiliency Programs (New)

❖ 4,630 generators - Generator Grant Program – PSPS MBL customers

Whole House Generators (New)

❖ 900 generators provide whole house generators - PSPS customers

WMP Capital Financial Summary



SDG&E will invest nearly \$900 million in capital on wildfire risk mitigation over the three-year period of the WMP (2020-2022)

Mitigation Description	2019 (actuals)	2020 (plan)	2020-2022 (plan)
Underground Hardening	\$4.8	\$31.0	\$376.0
Overhead Hardening Bare Conductor	\$120.6	\$88.1	\$128.9
Proactive Equipment Replacement	\$3.7	\$5.3	\$18.9
Microgrids	\$0.2	\$11.3	\$28.1
Advanced Protection and Communication	\$10.5	\$36.8	\$128
Corrective Maintenance Program	\$11.7	\$10.6	\$31.7
Other Wildfire Mitigation Program Capital	\$74.6	\$106.6	\$187.0
Totals	\$226.1	\$289.7	\$898.6

Questions



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2020 PSPS Impacts and Mitigations

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2019 Public Safety Power Shutoff Overview



EVENT DETAILS	OCT 10-11	OCT 24-25	OCT 30-31
METERS IMPACTED	395	19,000	27,700
CIRCUIT SEGMENTS	4	62	84
AVGERAGE METERS PER SEGMENT	99	333	304
AVERAGE OUTAGE DURATION	20 HRS	24 HRS	24 HRS
LONGEST OUTAGE DURATION	23 HRS	57 HRS	33 HRS
PEAK WINDS MPH	47	78	68
COMMUNITY RESOURCE CENTERS (CRCs) & COMMUNITY INFORMATION CENTERS (CICs) OPEN	2 CRCs	7 CRCs & 2 CICs	7 CRCs & 2 CICs
DAMAGE/ HAZARDS	0	5	10

2019 PSPS Lessons Learned

Last resort mitigation during extreme weather events to minimize public risk

- 2019: Historic Year for PSPS in California
 - Impacted 27,700 SDG&E customers at peak
 - Zero ignitions of consequence associated with SDG&E equipment
- Adapting and Acting
 - Website capabilities scaled up
 - Building trust with our local communities
 - Strong partnerships with non-profits will strengthen our community's ability to minimize the impact of a PSPS event
 - Collaboration with public safety agencies
 - Strategic use of sectionalizing
 - Hardening efforts help the system withstand extreme weather conditions
- SDG&E's Goal
 - Reduce risk while mitigating the impacts of PSPS to customers



Questions



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