

**April 30, 2020**  
**Special Meeting**  
**Item # 2a**

**Southern California Edison**

**Additional Documents:**  
**PowerPoint Presentation**

# SCE Vegetation Management in Mono County

April 30, 2020

# VEGETATION MANAGEMENT

We inspect about 900,000 trees across our service area every year to determine if they could pose a hazard by making contact with our power lines.

**WE CONTINUE TO  
REMOVE DEAD, DYING,  
DISEASED TREES IN  
HIGH RISK AREAS.**

- In high fire risk areas, a minimum 12-foot clearance is created between trees and our power lines to prevent vegetation from coming into contact with electrical equipment.

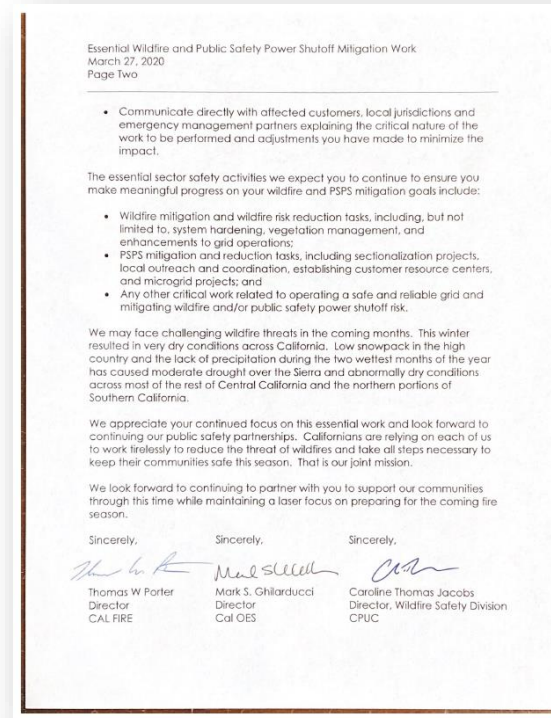
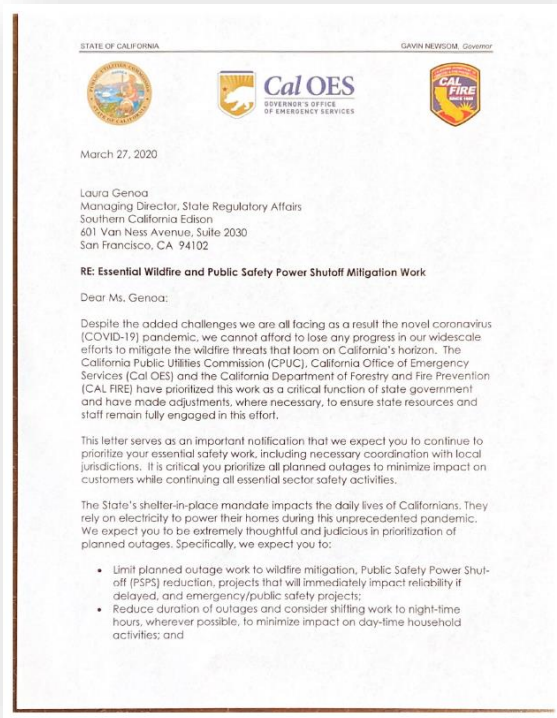
- Trees up to 200 feet from wires are removed if they demonstrate a high risk of falling into the lines or have vegetation, like palm fronds, that high winds could carry long distances into power equipment.

For more information, visit: <https://www.sce.com/safety/wildfire>

# Essential Wildfire And Public Safety Power Shutoff Mitigation Work

March 27, 2020

Governor Newsom's California Office of Emergency Services (CAL OES), CAL FIRE and the California Public Utilities Commission (CPUC) identified SCE's Wildfire mitigation and wildfire risk reduction tasks including, but not limited to, system hardening, vegetation management and enhancement to grid operations as essential safety sector activities expected to continue during the COVID-19 pandemic.



# SCE's Commitment to Our Customers

- SCE is committed to doing what is right for our customers and our workers. As always, we are keeping the health and safety of our workers, our customers and communities top of mind.
- We will continue to safely perform critical work related to public safety and reliability while **postponing non-critical outages.**
- Critical safety work includes mitigating the upcoming dangers of wildfire season and responding to urgent needs like replacing a splintered pole after a car accident.
- While conducting this critical work, our teams are prioritizing their safety and the safety of the public by following CDC guidelines and taking additional precautions where appropriate.

# Overview of SCE Vegetation Management Programs

## Compliance

Historical annual schedule, routine maintenance trimming

## LiDAR

Remote sensing inspection tool used since 2018 to ensure conductor to tree clearances under maximum sway and maximum sag conditions, while supporting TVMP, DRI/BB, HTMP along Transmission ROWs

## DRI "Dead Trees"

Quarterly to Bi-annual inspections in Tier 2 and Tier 3 HFRA for tree mortality to identify and remove dead, dying, or diseased trees affected by drought conditions depending on weather conditions and access

## HTMP "Green Trees"

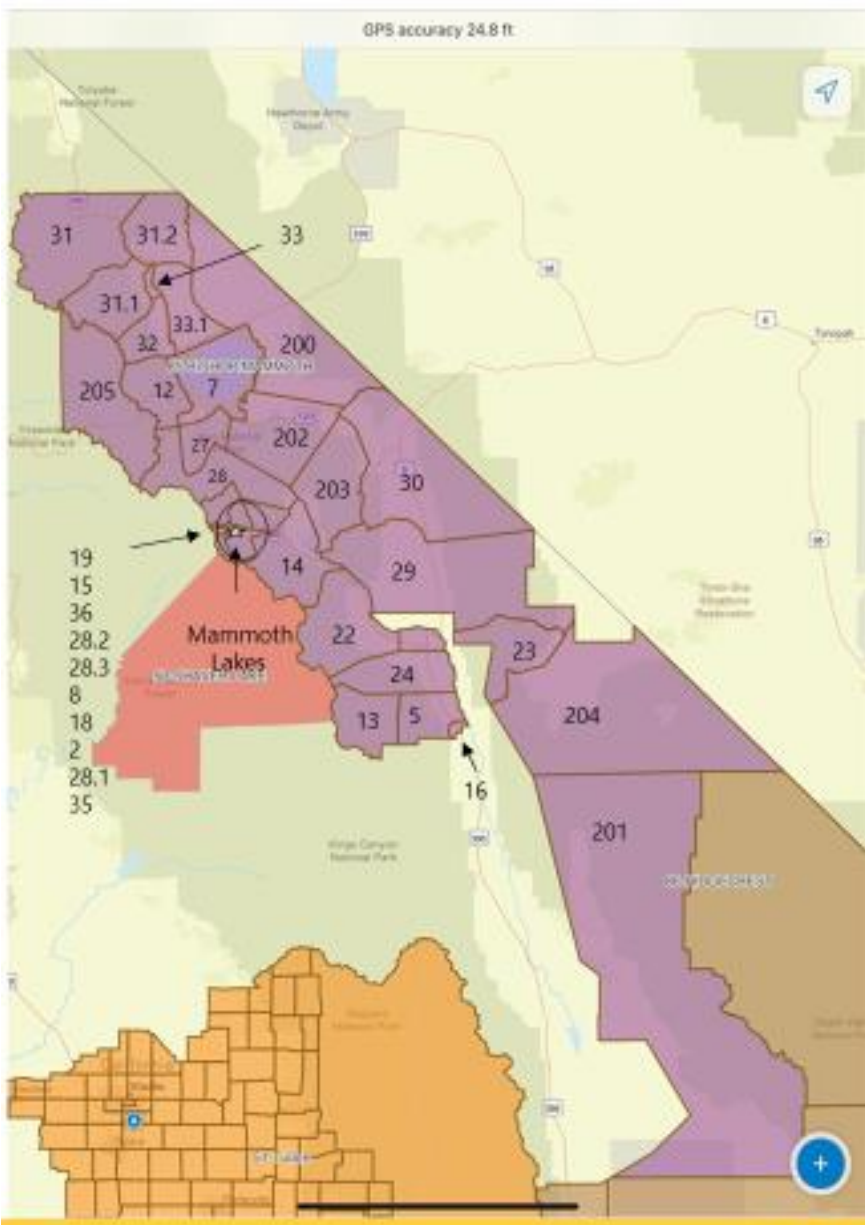
Assessing the structural condition of trees in HFRA that are not dead or dying but could nevertheless fall into or otherwise impact electrical facilities and potentially lead to ignitions and outages

## Pole Clearance

In order to lower the risk of wildfires and remain in compliance, SCE needs to maintain a 10-foot radial clearance firebreak around **all** distribution poles located in high-fire areas

# Compliance Trimming Program

# 2020 Grid Schedule & Map



Zone	District	GridID	Fire State	T/D	Est. trims	Trim Month (prior sched.)
1	85	85-18	High-fire	Distribution	196	1
1	85	85-2	High-fire	Distribution	843	1
1	85	85-23	High-fire	Distribution	252	1
1	85	85-31	High-fire	Distribution	134	2
1	85	85-31.1	High-fire	Distribution	325	2
1	85	77245	High-fire	Transmission	625	2
1	85	85-16	High-fire	Distribution	226	3
1	85	85-33	High-fire	Distribution	26	3
1	85	85-35	High-fire	Distribution	42	3
1	85	85-36	High-fire	Distribution	611	3
1	85	01064	High-fire	Transmission	1	3
1	85	75235	High-fire	Transmission	-	3
1	85	75336	High-fire	Transmission	-	3
1	85	75435	High-fire	Transmission	1	3
1	85	01446	N/A	Transmission	-	3
1	85	77246	N/A	Transmission	107	3
1	85	00283	N/A	Transmission	-	3
1	85	85-4	N/A	Distribution	-	3
1	85	85-4.1	N/A	Distribution	-	3
1	85	85-202	N/A	Distribution	-	3
1	85	85-203	N/A	Distribution	-	3
1	85	85-204	N/A	Distribution	-	3
1	85	85-205	N/A	Distribution	-	3
1	85	85-23	N/A	Distribution	-	3
1	85	85-24	High-fire	Distribution	2,590	4
1	85	01737	High-fire	Transmission	110	4
1	85	85-200	High-fire	Distribution	11	5
1	85	85-31.2	High-fire	Distribution	108	5
1	85	85-32	High-fire	Distribution	47	5
1	85	85-33.1	High-fire	Distribution	37	5
1	85	85-5	High-fire	Distribution	19	5
1	85	85-7	High-fire	Distribution	138	5
1	85	00351	High-fire	Transmission	514	5
1	85	01443	High-fire	Transmission	604	5
1	85	01774	High-fire	Transmission	166	5
1	85	85-13	High-fire	Distribution	353	6
1	85	76337	High-fire	Transmission	207	6
1	85	00886	High-fire	Transmission	1,265	6
1	85	76438	High-fire	Transmission	223	6
1	85	85-14	High-fire	Distribution	1,005	7
1	85	85-19	High-fire	Distribution	55	7
1	85	85-201	High-fire	Distribution	42	7
1	85	85-28.1	High-fire	Distribution	377	7
1	85	85-28.2	High-fire	Distribution	460	7
1	85	85-28.3	High-fire	Distribution	84	7
1	85	85-8	High-fire	Distribution	429	7
1	85	85-12	High-fire	Distribution	204	7
1	85	85-27	High-fire	Distribution	314	8
1	85	85-23.2	High-fire	Distribution	1,689	9
1	85	85-28	High-fire	Distribution	1,314	10
1	85	85-15	High-fire	Distribution	1,155	11
1	85	85-30	High-fire	Distribution	252	12
1	85	85-22	High-fire	Distribution	1,218	12



# Compliance Scheduled Months and Estimated Inventory

Monthly Inventory														
Zone	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	85	1,957	2,552	1,534	4,092	2,581	3,111	4,025	1,384	2,559	1,991	1,750	2,226	<b>29,762</b>

Monthly Trims														
Zone	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	85	1,292	1,684	1,012	2,701	1,704	2,054	2,657	914	1,689	1,314	1,155	1,469	<b>19,646</b>

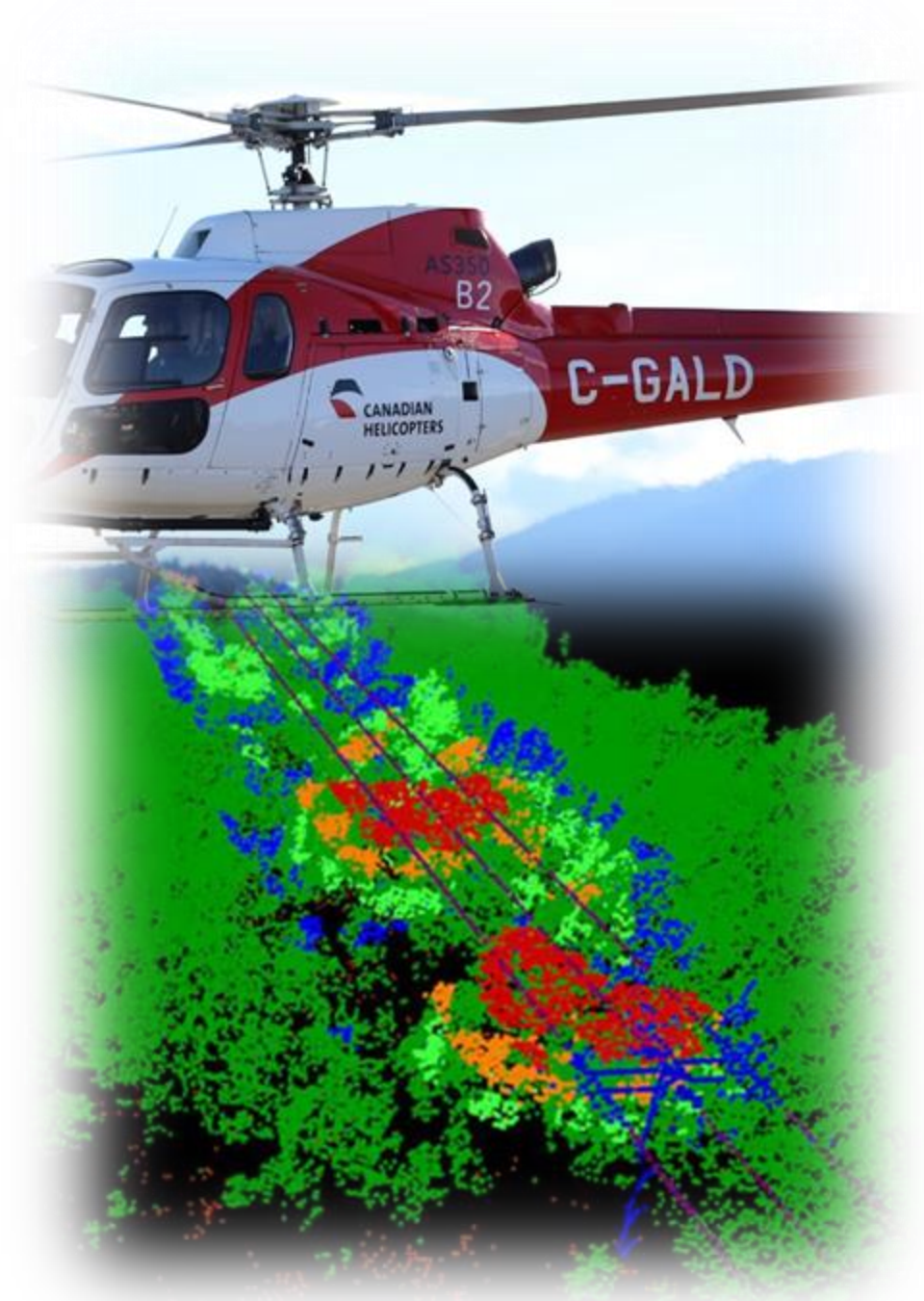
## Highlights

- Pre-Inspection in D85 high priority in coming weeks to meet schedule requirements

# LiDAR Program

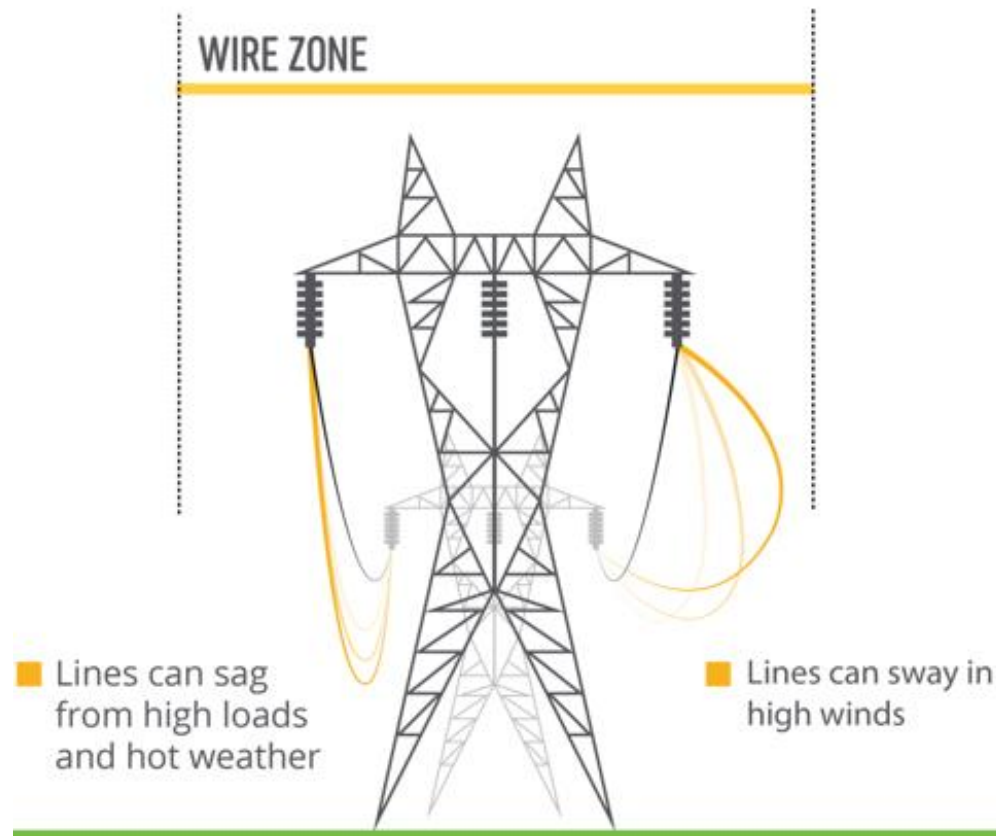
# What Is LiDAR?

LiDAR stands for ***Light Detection and Ranging***, is a remote sensing method that uses light in the form of a pulsed lasers to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system— generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.



# Why Use LiDAR for Vegetation Inspections?

- Provide exact radial clearances between vegetation and conductors, so an arborist can determine if a tree can “grow” out of compliance (**Grow-in** Condition)
- Determine whether vegetation can strike or “fall” into conductors (**Fall-in** Condition)
- Predict how close vegetation can be if the lines sag or sway under extreme conditions.

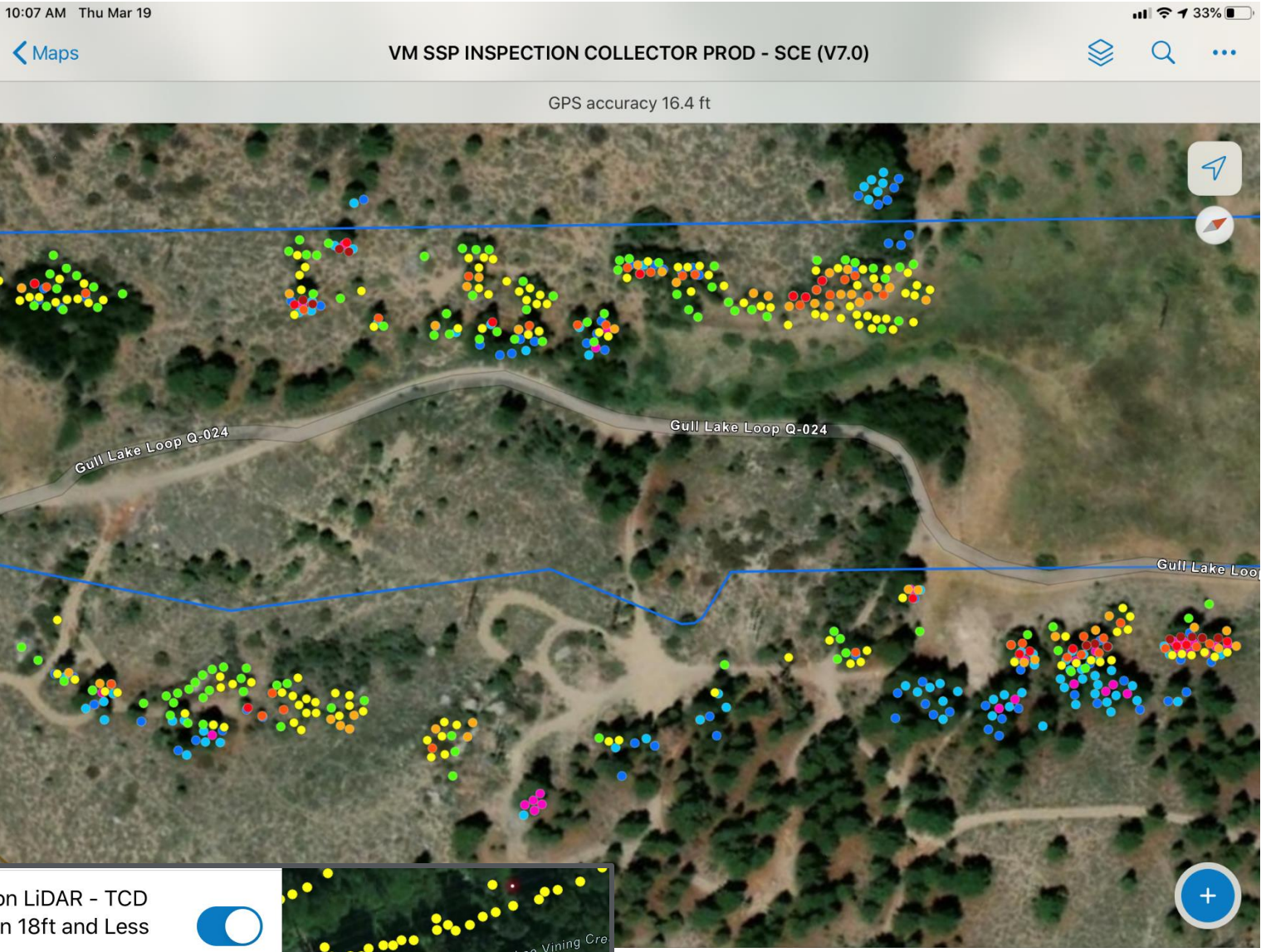


**Figure 1: Sag and Sway**

# How Does SCE Use LiDAR Data?

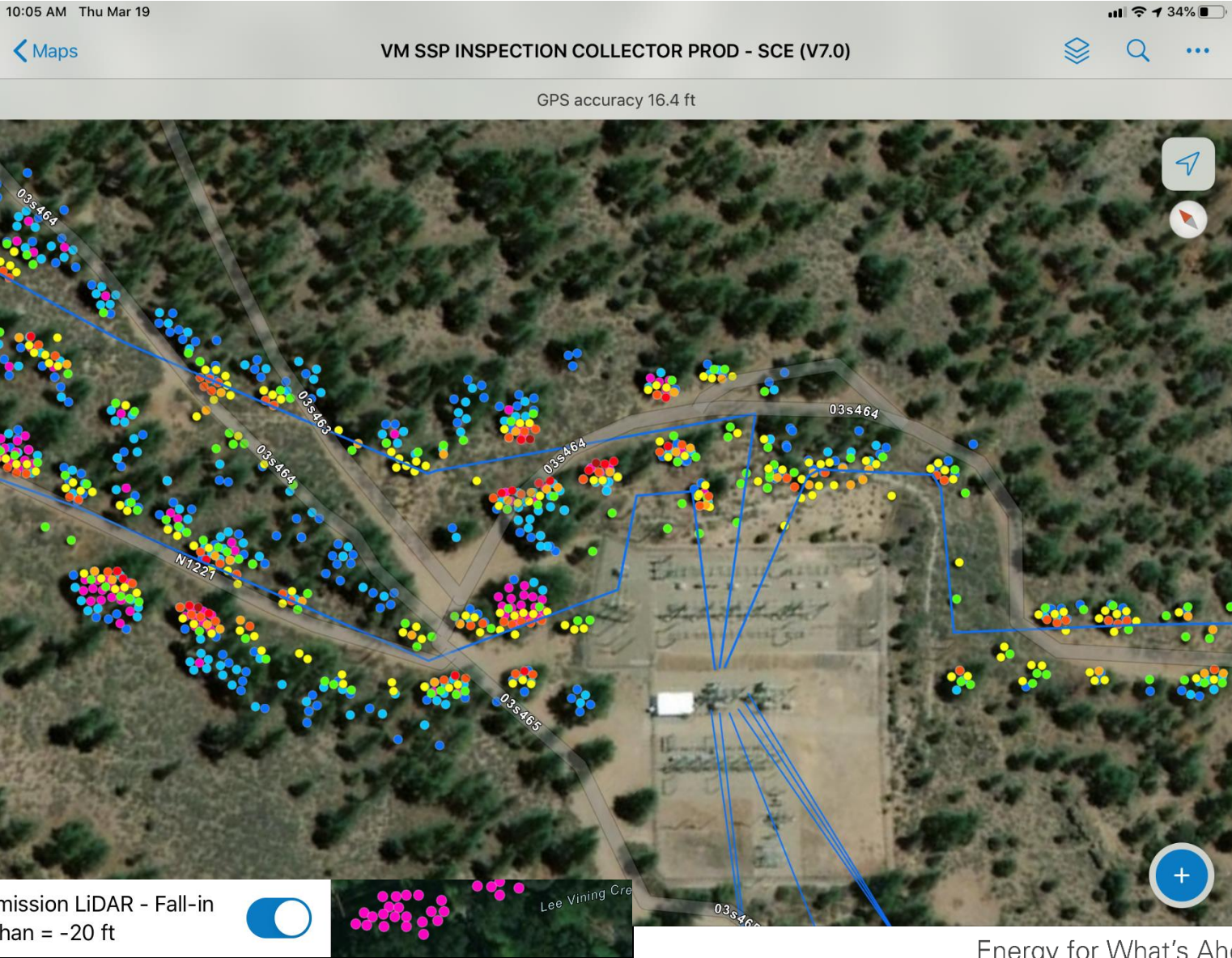
- LiDAR is an inspection tool used to assess:
  - **Grow-in** trees inside of 18 ft under maximum sag or maximum sway conditions
    - Low-growing grasses/bushes should be inventoried but not trimmed if located within 18 ft of conductors
  - On Right of Way (ROW) **Fall-in** trees that must be mitigated
- All Grow-in trees outside of 18 ft are assessed for current growth conditions to determine if the tree will encroach 18 ft before the next annual inspection cycle
- The goal is to incrementally clear all vegetation to the Grid Resiliency Clearance Distance (GRCD) 30 ft within three years

# Compliance Trimming: Casa Diablo-Control, Casa Diablo-Control-Sherwin, Casa Diablo – Rush Creek, Lee Vining – Poole-Rush Creek



Transmission LiDAR - TCD  
Greater than 18ft and Less  
than 25ft

# Compliance Trimming: Casa Diablo-Control, Casa Diablo-Control-Sherwin, Casa Diablo – Rush Creek, Lee Vining – Poole-Rush Creek



# Hazard Tree Programs

Hazard Tree Management Plan (HTMP)

Drought Relief Initiative/Bark Beetle (DRI/BB)



# HAZARD TREE MANAGEMENT PROGRAM SCOPE

**SCE Wildfire Goal** Reduce the risk of catastrophic wildfires associated with electric infrastructure by executing our Wildfire Mitigation Plan and programs.

**HTMP Objective** To mitigate the potential risk to SCE's electric facilities from structurally unsound trees that can fail in total or in part, and palm trees that can dislodge palm fronds during high winds.

- HTMP Criteria**
- High Fire Areas in SCE territory only
  - Tree with site and/or tree conditions that pose or have the potential to pose a hazard
  - Tree in utility strike zone => 12' from conductor(s)
  - Tree with potential to fall in, blow in or grow into conductor(s)

## WHAT IS A HAZARD TREE?

Hazard trees are trees, or portions of trees, that may strike our overhead equipment. Tree, site and environmental conditions are all considered when assessing whether a tree is a hazard. Every tree in a high fire risk area that is within striking distance of our overhead equipment will be assessed for its potential to fail or make contact with our equipment.



## WHY IS SCE REMOVING SO MANY TREES AT ONE TIME?

SCE understands that removing trees can be disruptive to the community, but the work is necessary in high fire risk areas for public safety. Based on a hazard assessment tool created by certified arborists, SCE assesses each tree within striking distance of SCE equipment to determine if the tree is deemed a hazard. Tree removal crews specially trained to work near power lines will remove the tree.

Please note that in addition to the hazard tree mitigation crews, there may also be routine tree maintenance crews tasked with maintaining clearance requirements also working nearby.



# SCE HAZARD TREE REMOVAL

---

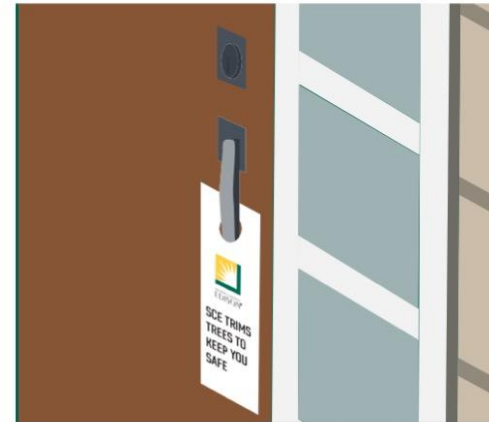
## WHY IS SCE REMOVING TREES?

The safety of our customers, communities and employees is our No. 1 priority. State regulations require utilities to trim or remove trees and vegetation so they don't grow or fall into high-voltage power lines, which could not only cause a power outage but could spark a fire or be a danger to the public. Trained SCE personnel have inspected trees throughout SCE's service area and have identified site and/or tree conditions that pose a hazard. Trees that pose a hazard must be mitigated, which can mean complete removal.



## WHAT CAN THE PUBLIC EXPECT?

- Certified arborists will conduct assessments of trees in high fire risk areas with the potential to fall, blow or grow into an electrical line.
- SCE will attempt to contact the property owner by door hanger and certified mail prior to removal, then the tree will be scheduled for mitigation by specialized tree removal crews. Please use the phone number or email provided.
- An SCE-authorized crew will attempt to notify the property owner 24-48 hours before the tree removal. If there is no answer, a door hanger will be left with contact information.
- SCE vehicles will feature the company's logo and contractor vehicles will have signage indicating they are SCE "approved contractors." Anyone associated with the work will also carry ID badges.
- Hazard trees that are cut down will be removed within 24 hours unless otherwise noted or by direct request from the property owner. All removals will be at no cost to the property owner.
- Large trucks and heavy equipment will be in the area. Please be aware of coned work zones and proceed with caution. Traffic control will be set up to ensure traffic and pedestrian safety.



# 2020 HAZARD TREE MITIGATIONS REQUIRED IN MAMMOTH DISTRICT

LAND TYPE	LOCATION	# HAZARD TREES	START FLAGGING TREES*	START TREE MITIGATION*
Inyo NF	Twin Lakes (Mammoth Lakes Basin)	2,000 +	3/30/20	May
Inyo NF	DRI/Bark Beetle Trees	475 +	3/30/20	May
Inyo NF	June Mountain	400 +	May	May
Private	Mammoth District	200 +	Complete	May
Inyo NF	Pine Creek	~10	Complete	May

\*Snow, ice, weather, recreation and COVID 19 are potential risks to these estimated timelines.

\*Inventory may be adjusted as trees are reassessed during flagging exercise completed in April. Tree count updated 4/07/20.

# Hazard Tree Timber Disposal

## **Private Land/Parcel Owners**

- Disposal at the discretion of the homeowner (haul away or leave on property). The tree crew performing the work will coordinate this when giving 24-72 hour advance notice.

## **Public Land (Inyo National Forest)**

- Hazard Tree Program: Southern California Edison will haul all logs and boles and donate them to the Mammoth Firewood Company (Not to be distributed to the public).
- Drought Relief Initiative/Bark Beetle Program: Southern California Edison will purchase the timber and haul it to Sherwin Creek Road Tank Farm open for public wood gathering

# Hazard Tree Contacts

**HAZARD TREE MITIGATION NOTICE**

**EDISON**  
Energy for What's Ahead®

DATE: \_\_\_\_\_ CONTROL # \_\_\_\_\_

QUANTITY \_\_\_\_\_  
SPECIES \_\_\_\_\_  
DBH \_\_\_\_\_  
HAZARD LOCATION \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_

Maintaining vegetation near electrical equipment is necessary for public safety, fire prevention and facility access.

A utility arborist has identified one or more trees on this site that pose a safety hazard. It has been determined your tree(s) must be removed. Removal of the tree(s) is necessary in order to comply with the law and to ensure public safety.

SCE will remove this tree at NO COST to you.

**WHAT IS REQUIRED FROM THE PROPERTY OWNER?**

Respond or have the property owner respond to SCE WITHIN 10 CALENDAR DAYS. Complete all sections of the enclosed Tree Removal Form and return the form via one of the following three options:

- SCAN or take a photo of the form with your cell phone and submit it to [HazardTree@sce.com](mailto:HazardTree@sce.com), or
- COMPLETE THE ONLINE FORM by scanning this QR code with your smartphone. Hover your phone over the QR code to the right to enable a pop-up. Click on the pop-up to see the form. (A QR code reader app may be required.) or
- MAIL TO: SCE Vegetation Management, 360 N. Pepper Ave., Building B, Palo Alto, CA 94376

If you have additional questions on the tree assessment, contact the utility arborist within 10 calendar days at:

If you received a door hanger like this Hazard Tree Mitigation notice and have questions, please contact:

- **Email:** [HazardTree@sce.com](mailto:HazardTree@sce.com)
- **Phone:**
  - Vegetation Management Hotline
  - (833) 744-1393 Option #1
  - 8 a.m.-3 p.m., Monday-Friday

# Pole Brushing Program

Energy for What's Ahead<sup>SM</sup>

HAZARD TREE MANAGEMENT PROGRAM 2020



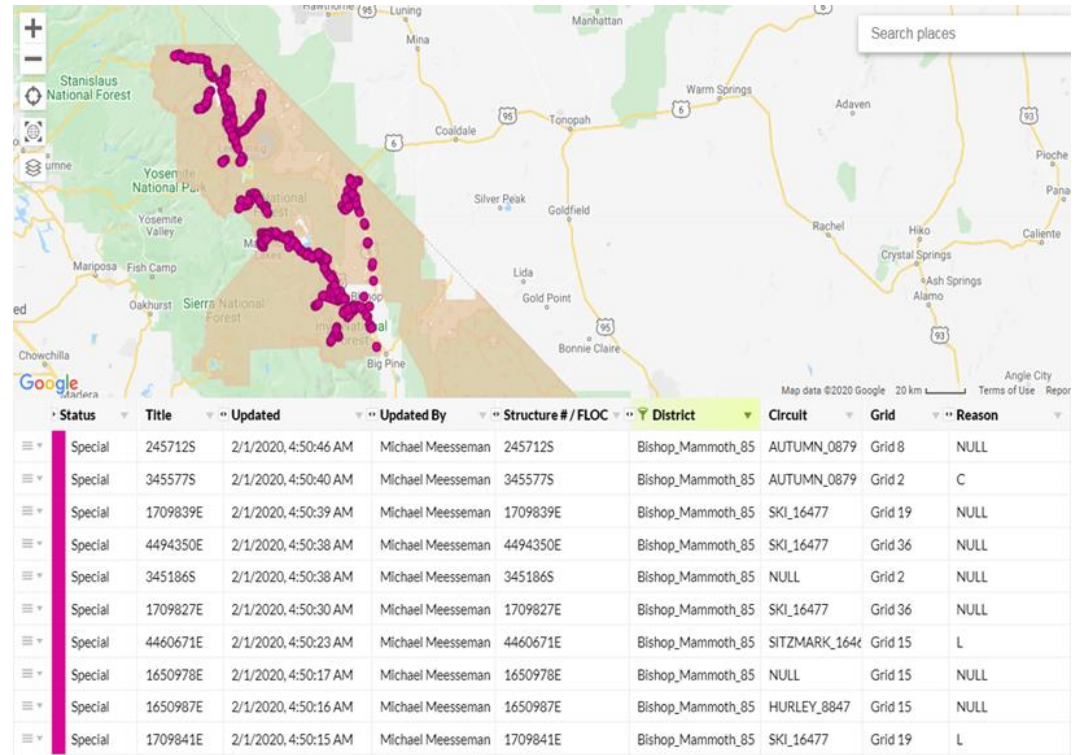


# Pole Clearance

## D85 work overview

- In order to meet corporate and compliance goals, the pole clearance program is required to clear ~4K poles in D85 in 2020, majority of which are first time clearances on public land
  - First time clearances on public land will most likely trigger class 2 environmental review and will be sent to Inyo National Forest for approval
- All D85 poles are scheduled to be cleared in June, August and September in order to allow adequate time for forest review and to ensure there is no risk of weather related delays
- VM estimates that the 3,712 poles will take ~15 crews 9-10 days to complete the work in D85

## Map of areas requiring work



# Environmental Compliance

Energy for What's Ahead<sup>SM</sup>



# Environmental Compliance

- Desktop Analysis
- Pre-activity Surveys
- Forest Approval & Resource Agencies
- Environmental Training
- Biological Monitors
- Document Compliance; Annual Report





SOUTHERN CALIFORNIA  
**EDISON**<sup>®</sup>