
# WILDFIRE MITIGATION PLAN

## VERSION 3.0 (THIRD ANNUAL UPDATE)

*May 24, 2022*

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# I. CONTEXT SETTING INFORMATION

The Wildfire Safety Advisory Board (WSAB) requested that POUs provide an informational table to assist the Staff and Board member in understanding the unique characteristics of TDPUD.

**Table 1: Context-Setting Information**

| Utility Name | Truckee Donner Public Utility District | |
|---|---|---|
| **Service Territory Size** | 45.5 square miles | |
| **Owned Assets** | ☐ Transmission ☐ Distribution ☐ Generation | |
| **Number of Customers Served** | 14,360 customer accounts | |
| **Population Within Service Territory** | 17,131 people | |
| **Customer Class Makeup** | *Number of Accounts* | *Share of Total Load (MWh)* |
| | 88.65% Residential;<br>2.07% Government;<br>-% Agricultural;<br>9.23% Small/Medium Business;<br>.05% Commercial/Industrial | 59.96% Residential;<br>16.64% Government;<br>-% Agricultural;<br>20.11% Small/Medium Business;<br>3.29% Commercial/Industrial |
| **Service Territory** | .039% Agriculture<br>2.641% Barren/Other<br>54.95% Conifer Forest<br>-% Conifer Woodland | |

| | |
|---|---|
| **Location/Topography**[1] | -% Desert<br><br>.75% Hardwood Forest<br><br>-% Hardwood Woodland<br><br>2.99% Herbaceous<br><br>26.92% Shrub<br><br>7.66% Urban<br><br>4.11% Water |
| **Service Territory**<br><br>**Wildland Urban Interface**[2]<br><br>**(based on total area)** | 29.56% Wildland Urban Interface;<br><br>19.90% Wildland Urban Intermix; |
| **Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)** | ☐Includes maps<br><br>Tier 2: 55.07%<br><br>Tier 3: 27.15% |
| **Prevailing Wind Directions & Speeds by Season** | ☐ Includes maps<br><br>Prevailing winds were taken from both the Global Winds Atlas and Wind Rose data from archived records and assembled by Iowa State University. Gradient winds are generally out of the south/southwest shifting to west/southwest in the spring and summer months. The average wind speed is 4.4 mph with frequent gust in excess of 20 mph throughout the year. TDPUD's extreme weather and wind events occurs in winter months when wildfire threat is |

[1] This data shall be based on the California Department of Forestry and Fire Protection, California Multi-Source Vegetation Layer Map, depicting WHR13 Types (Wildlife Habitat Relationship classes grouped into 13 major land cover types) *available at*: https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3.

[2] This data shall be based on the definitions and maps maintained by the United States Department of Agriculture, as most recently assembled in *The 2010 Wildland-Urban Interface of the Conterminous United States*, *available at* https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf.

| | |
|---|---|
| | typically low. These events are caused by atmospheric rivers and can bring winds in excess of 100 mph. These atmospheric river events and heavy snow fall are the reason TDPUD builds to a heavy loading standard and able to withstand extreme weather events.<br><br>Source: https://globalwindatlas.info; https://mesonet.agron.iastate.edu/sites/windrose.phtml?network=CA_ASOS&station=TRK |
| **Miles of Owned Lines Underground and/or Overhead** | Overhead Dist.: 134.7 miles<br><br>Overhead Trans.: 0.3 miles<br><br>Underground Dist.: 97.6 miles<br><br>Underground Trans.: 0 miles |
| | **Explanatory Note 1 -** *Methodology for Measuring "Miles":* [e.g., circuit miles, line miles.] Data from GIS system |
| | **Explanatory Note 2 –** *Description of Unique Ownership Circumstances:* NA |
| | **Explanatory Note 3 –** *Additional Relevant Context:* [e.g., percentage of lines located outside service territory] NA |
| **Percent of Owned Lines in CPUC High Fire Threat Districts** | *Overhead Distribution Lines as % of Total Distribution System*<br><br>*(Inside and Outside Service Territory)* |
| | Tier 2: 23.02%<br><br>Tier 3: 40.59% |
| | *Overhead Transmission Lines as % of Total Transmission System*<br><br>*(Inside and Outside Service Territory)* |

| | |
|---|---|
| | Tier 2: .21%<br><br>Tier 3: -% |
| | **Explanatory Note 4 –** *Additional Relevant Context:* [e.g., explain any difference from data reported in WMP due to different numerator used for this form] |
| **Customers have ever lost service due to an IOU PSPS event?** | ☐ Yes ☐ No |
| **Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?** | ☐ Yes ☐ No |
| **Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?** | ☐ Yes ☐ No |
| **Has previously pre-emptively shut off electricity in response to elevated wildfire risk?** | ☐ Yes ☐ No<br><br>If yes, then provide the following data for calendar year 2020:<br><br>*Number of shut-off events*: NA<br><br>*Customer Accounts that lost service for >10 minutes:* NA<br><br>*For prior response, average duration before service restored:* NA |

# II. OVERVIEW

## A. INTRODUCTION

The state of California has experienced some of the most devastating and catastrophic wildfires in the nation's history. Due to the fatalities and damages resulting from the catastrophic wildfires, the state of California signed Senate Bill (SB) No. 901 into law on September 21, 2018, which amended Public Utilities Code (PUC) section 8387, requiring every local publicly owned electric utility (POU) to prepare a Wildfire Mitigation Plan (WMP). To safeguard their electrical systems, utilities are now required to implement a WMP to comply with the state's Public Utility Code Division 4.1, Chapter 6, Section 8387[3] by January 1, 2020. Section 8387 requires every POU to construct, maintain and operate its electrical facilities and equipment in ways that minimize the risk of wildfire posed by those facilities and equipment to be adopted by January 1, 2020, and annually thereafter.

Fire mitigation has been an integral part of Truckee Donner Public Utilities District's (District) operational practices for years, and the District has several existing policies, programs and procedures in place that directly or indirectly manage or reduce this risk. Over time, the District has adopted additional fire mitigation programs to adjust for changes in fire-related conditions as well as take advantage of technological advances and improved operational practices. The District continues to evaluate and implement new technologies and operating practices to further mitigate the potential for ignitions and to better respond to high wildfire risk conditions.

The strategies, programs and activities included in this WMP, with associated goals and metrics, are an effective approach to reduce fire-related risk for the District's customers in the near term and will allow for refinement and improvement over time. As new information is obtained, and experience is gained by implementing the mitigation programs in this WMP, the District will assess, evaluate, and enhance its wildfire risk mitigation strategies. This plan will also describe vegetation management, asset inspection and maintenance, recloser setting protocols, communication plans, as well as the restoration of service process.

The District appreciates the interactions with the California Wildfire Safety Advisory Board (WSAB) member, staff, and consultants and looks forward to continuing our collaborative efforts. The District acknowledges receipt of the WSAB *Guidance Advisory Opinion for the 2022 Wildfire Mitigation Plans of Electric Publically Owned Utilities and Rural Electric Cooperatives* dated February 10, 2022 and have been reviewing both the specific recommendations to the District along with the overall recommendations for all POU's and Coops.

With regards to the WSAB's specific recommendations to the District, we appreciate the positive and constructive feedback given, and will continue to invest in and improve our performance while making the WMP and relevant information easily accessible to the public. For example, we have reviewed our website and ensured that all past WMPs, reports, and relevant

[3] Amended by Stats. 2018, Ch. 626, Sec 42. (SB 901) Effective January 1, 2019

documents are available. The District has made it clear that, although fire season is typically June-December, the determination of the start and end are based on meteorological conditions and scientific data and can occur before and/or after the typical season. The District has also included the summary of WMP changes below in this Introduction section to facilitate comparison of 2022 to 2021 WMPs.

The WSAB did make one specific recommendation for the District for "….consideration of remote recloser management systems, in the 2022 and future WMPs." The District has made significant investments in expanding our fiber optic access to key facilities and equipment (over 60 miles of fiber with ~40 more in planning) along with expanding our Supervisory Control and Data Acquisition (SCADA) and Graphic Information System (GIS) capabilities. Each have been beneficial to both wildfire mitigation and outage management. While this does help enable more automatic operation of reclosers, this would come at a very significant capital expense and there is initial concern of unintended consequences and safety concerns of automating critical protection equipment. The District will continue to evaluate this option during the 2023 comprehensive update and with future WMP's.

The WSAB also in the Advisory Opinion provided a series of significant recommendations to the overall POU and Coop community. The District appreciates the opportunity to engage with the WSAB around these recommendations but, given the timing of the Advisory Opinion release and the significant public process to approve the 2022 WMP and submit to the WSAB before July 1, 2022, this WMP was not able to respond directly to the overall recommendations. The District does have some concerns about the appropriateness of some of the recommendations along with the costs/benefits of others, and is working collaboratively with sister POUs and Coops through the California Municipal Utilities Association (CMUA), Northern California Power Agency (NCPA) and the Southern California Public Power Authority (SCPPA) to explore the recommendation and provide thoughtful responses to the WSAB. We look forward to continued engagement as we head into the 2023 comprehensive update.

**Summary of 2022 WMP Changes:**

Below is a summary of the key changes between the District's current WMP (dated May 24, 2022), and the District's prior WMP (effective May 17, 2021). This summary is intended to simplify the process of reviewing the District's current WMP, but does not represent a comprehensive identification of every single update to the WMP. Therefore, a full review of the District's wildfire mitigation efforts should be based on the actual WMP and supporting documents.

1. **Changes to Current WMP**

- **Context Setting Information (Section I):**
  - **i.** Included and updated the informational table to assist the Staff and Board member in understanding the unique characteristics of the District.
- ***Introduction (Section 11.A):***
  - **i.** Included information about the WSAB Advisory Opinion along with this summary of 2022 WMP changes.
- ***Policy Statement (Section II,C):***
  - **i.** Updated Mission Statement.

    ii. District will continue to apply this WMP as though its service area resides exclusively in Tier 3
- ***Resiliency of the Electric Grid (Section III,C):***
    i. Included new project completed in 2021 to improve reliability and resiliency of service to Tahoe Forest Hospital.
- ***Coordinating with Communication Infrastructure Providers (Section IV,C):***
    i. Included information on the District's new Nixle emergency notification text platform.
- ***Standardized Emergency Management System (Section IV,D ):***
    i. Updated OES Program Manager for Nevada County.
    ii. Clarified the District's role for emergency management/communications within the well establish emergency management structure at the local, county, State, and Federal level.
- ***Particular Risks and Drivers Associated with Topographic and Climatological Factors (Section V,A)***
    i. Added information regarding the District's water utility climate work along with leveraging larger sister utilities and the scientific community.
- ***Automated Metering Infrastructure (Section VI,B):***
    i. The addition of Operational Analytics to enhance our existing Meter Data Management System, (MDMS).
- ***Outage Management System (Section VI,C):***
    i. The addition of NISC's OMS system to integrate with the Districts AMI, ESRI GIS and SCADA systems.
    ii. Predictive engine to accurately locate the source of the outage.
    iii. Interactive map with active crew locations.
    iv. Customized communication for District customers.
- ***Supervisory Control and Data Acquisition – SCADA (Section VI,D)***
    i. Included additional details about the District's consideration of remote operation of reclosers and other protective equipment.
- ***Design and Construction Standards (Section VI,F):***
    i. Expanded upon the definition of 'meet or exceed' for GO 95.
- ***Vegetation Management (Section VI,G):***
    i. Added updated 2022 Vegetation Management Plan as an attachment.
    ii. Expanded upon the definition of 'meet or exceed' for GO 95.
    iii. Clarified how District handles dead vegetation, fast-growing grasses, invasive species, and herbicides.
- ***Non-Expulsion Current Limiting Fuses (Section VI,J):***
    i. Updated timeline for ELF deployment.
- ***De-Energization (Section VI,M)***
- ***Restoration of Service (Section VIII)***
    i. Additional details on re-energization after NV Energy PSOM wildfire safety transmission power outage and visual inspection.
- ***Metrics and Assumptions for Measuring Plan Performance (Section VIII,A):***
    i. Updated Metric 1 for Fire Ignitions in 2022
    ii. Updated Metric 2 for Primary Wire Down in 2022.

## B. UTILITY SERVICE TERITORY DESCRIPTION

The Truckee Donner Public Utility District (District) is a Special District of the state of California engaged in the distribution, sale and delivery of electric power and water. The District provides retail electric service to about 14,550 customers as of December 31, 2021. The District is a Transmission-Dependent Utility connected to NV Energy's transmission system and is located high on the eastern slope of the Sierra Nevada. The District is not directly interconnected with the California transmission system nor to any California utility in a meaningful way. The District's electric service territory is comprised of approximately 44 square miles in eastern Nevada County and approximately 1.5 square miles in adjacent Placer County. The electric system includes approximately 225 miles total with 135 miles of 12.47 kV and 14.4 kV overhead distribution lines, and about one-half mile of 60kV overhead transmission lines. In total, the District has 5,490 poles in its service territory.

## C.POLICY STATEMENT

***The Mission of Truckee Donner Public Utility District is to provide reliable, high quality utility and customer services while managing the District's resources in a safe, open, responsible, and environmentally sound manner at the lowest practical cost.***

The District strives to manage and mitigate the risk of wildfire with a holistic approach to operating its system. The outcome of this approach is diligent stewardship of customer/owner investment in the District as it continues to construct, maintain, and operate its electric distribution system in a manner that minimizes the risk of catastrophic wildfire posed by its electrical lines and equipment. The District has applied careful consideration in the development of broad strategies to mitigate utility-posed wildfire risks while remaining consistent with the intention of Senate Bill 901 (SB 901) and other regulatory requirements.

The District utilizes the California Public Utility Commission (CPUC) state-wide Fire Threat Map (Map) originally adopted on January 19, 2018 and revised in March of 2021 (Exhibit A), in addition to informational fire threat maps from other state of California Government agencies to inform and aid in the development of this Plan and its subsequent updating. The CPUC Map designates a portion of the District's service territory (predominantly the Tahoe Donner area) as Tier 3 (Extreme); additionally, areas circumnavigating the Tahoe Donner area are designated as Tier 2 (Glenshire, Martis Valley, Truckee, and Donner Lake) with interspersed locations identified as Tier 1, or exempt from the High-Fire-Threat-District (HFTD).

Although staff acknowledges different designations of Tier 3 area amongst various Fire Threat Maps and the California Public Utilities Commission (CPUC) Fire Threat Map, for the purpose of prioritizing and applying operational consistency, the District will continue to apply this WMP (Plan) as though its service area resides exclusively in Tier 3 (Exhibit A), where practicable. This methodology will be evaluated on an annual basis and adjustments made as new or substantive information becomes available.

The District will continue to closely coordinate with local fire and safety officials in the development and subsequent annual review of this Plan.

### D. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan (WMP or Plan) describes the range of activities and strategies the District takes to mitigate the threat of overhead power-line and equipment ignited wildfires. It addresses the unique features of the District's service area such as topography, weather, infrastructure, grid configuration and potential wildfire risks.

This Plan is subject to direct approval by the District's Board of Directors and is implemented by the General Manager. This Plan meets or exceeds the requirements of Public Utilities Code Section 8387 for publicly owned electric utilities to prepare a wildfire mitigation Plan by January 1, 2020, and to evaluate and update annually thereafter.

### E. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan includes the following elements:

I. Context Setting
II. Overview
III. Objectives of the Plan;
IV. Roles and responsibilities for executing the Plan;
V. Identification of key wildfire risks and risk drivers;
VI. Description of wildfire prevention strategies;
VII. Community outreach and education;
VIII. Restoration of Service;
IX. Metrics for measuring performance of the Plan and identifying areas for improvement;
X. Independent Auditor;
XI. Appendix; and
XII. Reference material.

## III. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

### A. MINIMIZING SOURCES OF IGNITION

The main objective of this Plan is to implement an actionable plan what will create increased reliability and safety while minimizing the probability the District's distribution system or equipment may be an original or contributing factor in the ignition of a wildfire. The District has evaluated the prudent and cost-effective improvements to its physical assets, operations, and training that can help to meet this objective. Further, the District is updating operational practices to reflect its commitment to prudent system management and will continue to explore new opportunities for improving the efficacy of the Plan. This plan embraces safety, prevention, mitigation and recovery programs that are consistent with California State Law.

## B. RESILIENCY OF THE ELECTRIC GRID

The secondary objective of this Plan is to ensure and improve, where practicable, system resiliency. System resiliency is defined by the National Infrastructure Advisory Council as the ability to reduce the magnitude and/or duration of disruptive events. As part of the development of this Plan, the District assesses new industry practices and technologies that will reduce the likelihood of a disruption in service and improve the timeline for restoration of service.

To accomplish this, the District utilizes the following practices: heavy-loading construction standards that are designed to withstand sustained heavy winds; covered jumper wire (where practicable); FR3 insulating fluid in transformers; non-expulsion current limiting fuses; and vegetation management, among other operational practices. The District's distribution system has already been designed to be sectionalized by individual circuit with open points at each tie point. In 2021, the District implemented a project to connect Tahoe Forest Hospital, a key regional rural medical facility, from an overhead to a predominately underground circuit to minimize the impacts of more and longer wildfire season power outages due to wildfire mitigation practices.

## C. MINIMIZING UNNECESSARY OR INEFFECTIVE ACTIONS

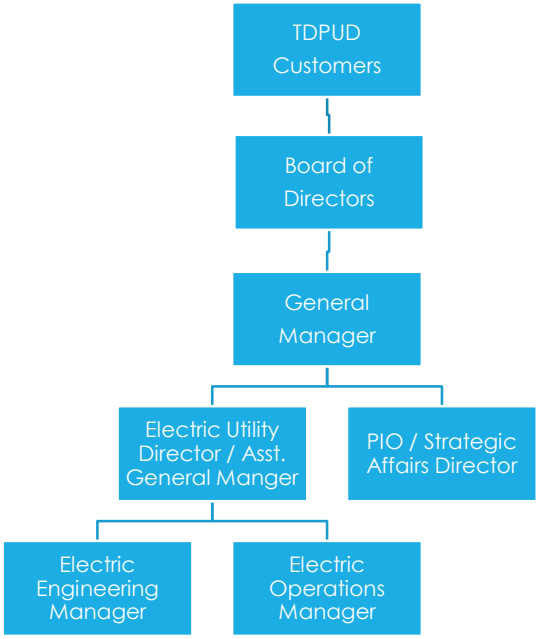
The final objective for this Plan is to measure the effectiveness of specific mitigation strategies as they apply to the District. Where a particular action, program component, or protocol is determined to be unnecessary or ineffective, the District will assess whether modification or replacement is suitable. This approach will also help determine if more cost-effective measures would produce the same or better results. This is particularly true for the implementation of new technologies and practices where an evaluation from prototype to pilot installation to full implementation is often prudent to ensure maximize performance and minimize unintended consequences.

This is discussed in more depth in Section IX. D – Identifying and Correction Deficiencies.

# IV. ROLES AND RESPONSIBILITIES

## A. DISTRICT ROLES AND RESPONSIBILITIES

**Truckee Donner Public Utility District**




The District utilizes a Public-Owned Utility Board/General Manager reporting hierarchy.

Board members are elected at large by District customers to staggered four-year terms, representing constituents across the District's service territory. The Board President and Vice President are in title; these positions are nominated and appointed by the Board annually. The Board is responsible for adoption and oversight of all policy and delegates the operational implementation of policy to the General Manager.

The General Manager has full operational authority of the District and operates as the Chief Executive, reporting directly to the Board. The General Manager provides direction and management to all District staff while implementing Board adopted policy.

The Public Information Officer (PIO) / Strategic Affairs Director, serves as the District's public liaison to customers and outside agencies as well as responding to requests for information, including proactively promulgating public awareness outreach or emergency information.

The Electric Utility Director / Assistant General Manager (AGM) has overall functional management of the Electric Utility and provides day-to-day oversight of the Electric Utility. The Electric Utility Director utilizes the Electric Operations Manager and Electric Engineering Manager

for division oversight. The AGM also assumes the operational authority of General Manager in the absence of the General Manager.

The Electric Operations Manager oversees the daily electric utility operations, including: construction; maintenance; energy control; fleet; facilities; vegetation management; and other ancillary daily duties. The Electric Operations Manager maintains functional management of assigned divisions within the Electric Utility and reports to the Electric Utility Director/AGM.

The Electric Engineering Manager oversees the design/engineering tasks associated with distribution system modification and development/maintenance of material specifications. The Electric Engineering Manager maintains functional management over the electric engineering related tasks within the Electric Utility and reports directly to the Electric Utility Director/AGM.

District staff have the following responsibilities regarding fire prevention, response and investigation:

- Conduct work in a manner that will minimize potential fire dangers;
- Take all reasonable and practicable actions to prevent and suppress fires resulting from District electric facilities;
- Coordinate with Federal, State, and Local fire management personnel to ensure that appropriate preventative measures are in place;
- Immediately report fires, pursuant to specified procedures;
- Take corrective action when observing or having been notified that fire protection measures have not been properly installed or maintained;
- Ensure compliance with relevant Federal, State, and industry standard requirements;
- Ensure that wildfire data is appropriately collected;
- Practice adaptive management reviewing past performance and data to inform and improve future plans; and
- Maintain adequate training programs for all relevant employees.

## B. COORDINATION WITH WATER UTILITIES/DEPARTMENT

The District owns and operates a Water Utility within its service territory, providing retail service to approximately 13,000 customers. The Electric Utility Director's office is literally adjacent to the Water Utility Director's office. When electric operations could or are known to impact the water utility, District electric and water staff will coordinate so as to mitigate, or where practicable, eliminate impact to electric and/or water service continuity. District electric staff collaborates proactively to notify District water staff of planned outages and communicate as quickly as practicable during emergency power outages that impact one or both enterprises. This emergency notification will be extended to the Truckee Fire District and other agencies as needed.

## C. COORDINATION WITH COMMUNICATION INFRASTRUCTURE PROVIDERS

Communications providers are notified via the District's reverse auto-dial system for planned service disruptions. Further, during emergency operations, District staff update the customer facing website dashboard as part of the Outage Management System (OMS) functionality. This feature will be much improved with the addition of the new NISC OMS in the summer of 2022. Local communication service providers are included in our NV Energy Public Safety Outage Management (PSOM) notification process. The District also implemented a new Nixle District emergency notification tool where customers, communication providers, and the general public can sign up for District emergency text notifications by texting TDPUD to 33311. Local communication service providers are:

- Verizon, Suddenlink, AT&T, Plumas Sierra Telecom

## D. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM

As a local governmental agency,[4] the District has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System ("SEMS") Regulations,[5] adopted in accordance with Government Code section 8607. The SEMS Regulations specify roles, responsibilities, and structures of communications at five different levels: field response, local government, operational area, regional, and state.[6] Pursuant to this structure, the District regularly coordinates and communicates with the relevant safety agencies as well as other relevant local and State agencies.

[4] As defined in Cal. Gov. Code § 8680.2.
[5] 19 CCR § 2407.
[6] Cal. Gov. Code § 2403(b):

> (1) "Field response level" commands emergency response personnel and resources to carry out tactical decisions and activities in direct response to an incident or threat.
>
> (2) "Local government level" manages and coordinates the overall emergency response and recovery activities within their jurisdiction.
>
> (3) "Operational area level" manages and/or coordinates information, resources, and priorities among local governments within the operational area and serves as the coordination and communication link between the local government level and the regional level.
>
> (4) "Regional level" manages and coordinates information and resources among operational areas within the mutual aid region designated pursuant to Government Code §8600 and between the operational areas and the state level. This level along with the state level coordinates overall state agency support for emergency response activities.
>
> (5) "State level" manages state resources in response to the emergency needs of the other levels, manages and coordinates mutual aid among the mutual aid regions and between the regional level and state level, and serves as the coordination and communication link with the federal disaster response system.

The District will support Emergency Operation Center (EOC) operations, when requested by an emergency manager representing local or State agencies. Support could include the exchange of information, supplying resources, or staffing an EOC.

Under the SEMS structure, a significant amount of preparation is done through advanced planning at the county level, including the coordination of effort of public, private, and nonprofit organizations. Generally, the majority of the District's service territory resides in Nevada County. When Nevada County serves as the Operational Area, which is guided by the Operational Area Emergency Service Council (Nevada County) and is headed by the Chairman of the Board of Supervisors (or designee). The Operational Area includes local and regional organizations that bring relevant expertise to the wildfire prevention and recovery planning process. These participants include:

- OES Program Manager; Nevada County. Paul Cummings (Paul.Cummings@co.nevada.ca.us, 530-265-1515) City of Nevada City (or designee);
- City of Grass Valley (or designee);
- Town of Truckee (or designee);
- Nevada Irrigation District (or designee);
- Nevada County Fire Chief's Association (or designee);
- Nevada County Sheriff (or designee);
- American Red Cross (or designee);
- Tahoe National Forest (or designee);
- California Department of Forestry & Fire Protection (or designee);
- Sierra Nevada Memorial Hospital (or designee);
- Pacific Gas & Electric (or designee);
- Nevada County Public Health Administrator (or designee)
- Placer County Public Health Administrator (or designee); and
- Such others as the Council requests be in attendance.

Additionally, a small portion of the District's service territory resides in Placer County, overseen by the Placer County Office of Emergency Services Council (PCOES). The PCOES Operational Area includes local and regional organizations that bring relevant expertise to the wildfire prevention and recovery planning process. The District will support Emergency Operation Center (EOC) operations for the PCOES, when requested by an emergency manager representing local or State agencies. Support could include the exchange of information, supplying resources or staffing an EOC. Pursuant to the SEMS structure, the District participates in training exercises with its counterparts both in field drills and tabletop exercises.

The District is a member of the California Utility Emergency Association (CUEA), which plays a key role in ensuring communications between utilities and emergency responders during emergencies. The District also participate in the Western Energy Institute's Western Region Mutual Assistance Agreement (WRMAG), which is a mutual assistance agreement covering utilities across a number of western states. In addition to those agreements, the District is also signatory to the American Public Power Association (APPA) mutual aid agreement, providing

nationwide access to resources for system restoration and support after a major event that exhausts District resources.

It should be noted that the District's service territory is largely within the Town of Truckee boundaries but does include unincorporated areas of Placer and Nevada County. The Town of Truckee did not formally incorporate till the 1990's, leaving over a dozen local governmental agencies covering utilities, fire, and other critical local functions. Each local agency, when it comes to emergency response, is aware of their role and responsibility with overall management and communication strictly controlled by the appropriate Town/County/State/Federal emergency response agency through the EOC.

# V. WILDFIRE RISKS AND DRIVERS ASSOCIATED WITH DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE

## A. PARTICULAR RISKS AND DRIVERS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL FACTORS

Per PUC 8387 (C) (as amended on 7/12/19): "A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks."

The fourth California Climate Change Assessment has concluded that climate change will make forests more susceptible to extreme wildfires. One study has found that the frequency of fires over 25,000 acres would increase by nearly 50 percent and that the average area burned would increase by 77 percent by the end of the century if greenhouse gas levels continue to rise. Increasing temperatures and rising sea-levels will have direct impacts on public health and infrastructure. Drought, coastal and inland flooding and wildfire will continue to affect people's livelihoods and local economies.

Locally, the District's water utility participated in the U.S. Bureau of Reclamations Truckee River Basin Study which included a climate change analysis through the end of the century. While focused on water supply, the study did provide insight on projected precipitation, temperatures, and other climatological factors. The District also tracks the climate work of our larger sister utilities and the overall scientific community. The District will continue to respond to the existing and potential impacts of climate change including projected increases in temperature, severe storms, flooding, and climate-related increases in population.

Increased population is possible due to 'climate refuges' leading to increases in both full-time and transient population, more traffic, etc. This concept is part of Truckee's Climate Adaptation and Mitigation Plan.

Within the District's service territory and the surrounding areas, the primary risk drivers for wildfire are the following:

- Human behavior;
- Lightning;
- Climate change;
- Extended drought;
- Vegetation type;
- High winds;
- Mountainous terrain/accessibility;
- Tree mortality;
- Increased population; and
- Lack of early fall precipitation.

## B. ENTERPRISE-WIDE SAFETY RISKS

The District will use a methodical approach to address/mitigate enterprise safety risks. This approach will utilize both Risk Assessment (RA) and intimate knowledge of our operational practices. RA is a process to identify and manage potential risks that could undermine core business functions, threaten business continuity or impact recover. RA will be used to analyze safety risks, which include:

- Pole Replacement Ranking Tool (Exhibit H);
- Unavailability of NV Energy's transmission due to an outage or planned Public Safety Outage Management (PSOM) fire de-energization event (Donner Lake Substation & Tahoe Donner Substation) interconnection & its distribution interconnection (Glenshire);
- Unavailability of CalPeco / Liberty Utilities' alternate distribution feed (Glenshire);
- Loss of Internet connectivity;
- Loss of radio communications;
- Loss of cellular communications;
- Impacts of system de-energization; and
- Impacted roadways limiting movement of personnel and equipment.

## C. CHANGES TO CPUC FIRE THREAT MAP

At this time, the District does not recommend any changes to the CPUC state-wide Fire Threat Map, originally adopted on January 19, 2018 and revised in March of 2021. Future changes in District knowledge or recommendations going forward will be communicated as required by statute.

# VI. WILDFIRE PREVENTATIVE STRATEGIES

## A. HIGH FIRE THREAT DISTRICT

The District participated in the development of the California Public Utilities Commission's (CPUC) Fire-Threat Map,[7] which designates the High Fire Threat Districts (HFTD) across California. In the map development process, the District served as a territory lead, and worked with Cal Fire, CPUC staff and local fire officials to identify areas of the District's service territory which are at an elevated or extreme risk of power line ignited wildfire. The District incorporated the HFTD mapping into its construction, inspection, operation, maintenance, repair, and vegetation management practices.

The Fire Threat Areas as designated by both Cal Fire and the CPUC have been incorporated into the District's Geographic Information System (GIS) in order to overlay with District Water and Electric facilities and identify any infrastructure within areas of high fire threat. As stated previously, for the purposed of the WMP and to retain consistency, the District treats the entire service territory as Tier 3 high fire threat.

## B. AUTOMATED METERING INFRASTRUCTURE (AMI)

The District has invested in and deployed advanced metering infrastructure within our service territory. AMI is an integrated system of smart meters, communications networks, and data management systems that enable two-way communication between utilities and customers. The system provides a number of important functions that were not previously possible or had to be performed manually, such as the ability to automatically send an outage notification to the District's OMS, the ability to automatically and remotely measure electricity use, connect and disconnect services, detect tampering, identify and isolate outages, and monitor voltages.

In 2021, the District implemented NISC's Operational Analytics (OA) module for the Electric Utility. The OA module is an enhancement to the existing Meter Data Management System (MDMS) used by the District to gather interval data across all AMI meters. The OM module has improved the District's operational efficiencies and grid reliability through advanced data analysis. The implementation included integrations with the District's AMI, ESRI GIS, and SCADA systems which are now used to proactively locate and replace critically overloaded or under loaded transformers, and reduce feeder losses.

## C. OUTAGE MANAGEMENT SYSTEM (OMS)

Since 2007, the District has utilized Schneider Electric's Responder Outage Management System (OMS) within the GIS for tracking and responding to electric outages and system hazards. The

[7] Adopted by CPUC Decision 17-12-024.

OMS automatically captures outage information in real time from all AMI meters and also captures incoming phone calls from the public and District customers. The OMS very quickly consolidates field events and alerts staff to potential issues impacting the electric system. In 2019, the District extended categorizing incidents to include Fires, Hazard Trees, or branches in proximity of electric lines. The Wires Down category has been tracked since the program's inception in 2007.

In addition to tracking active hazards to the system, all calls entered into the OMS can later be used for reporting based on Outage Cause, Duration, System Device, and number of customers affected. This information is used by District engineers to plan electric system upgrades and device replacements. Events recorded in the OMS are stored in the Responder Archives and are available for engineering and operations staff upon request and made available to public agencies as part of yearly CPUC reporting requirements on reliability indices.

In 2021, the District's Board authorized a contract for a new OMS available through National Information Solutions Cooperative (NISC). NISC is an information technology company that develops and supports software and hardware solutions for their member-owners, comprised primarily of POUs including the District. The District utilizes NISC software as the base enterprise planning resource software which manages the District's accounting, payroll (ABS), and customer information systems (CIS). The District has standardized on this software for the past 18 years due to in-house expertise with the product, the advanced leadership of NISC with other public power utilities, and their compatibility with other District products including AMI, ESRI GIS, and SCADA systems.

The new NISC OMS will improve upon the existing Schneider OMS by simultaneously informing the District on how to best resolve an outage while communicating with customers on how the outage is being resolved. NISC's OMS uses a prediction engine that integrates with District AMI, ESRI, and SCADA systems to accurately locate the source of the outage. The OMS also includes an interactive map with active locations of crews in the field responding to an incident. A reporting platform is also available which provides service and quality industry reports on the electric system including CPUC reporting requirements and reliability indices. District customer will be able to customize outage alerts through the NISC MyAccount/SmartHub customer engagement tool.

## D. SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

The District has invested in a robust fiber-based SCADA system that provides staff the capability to operate the substation reclosers on supervisory control from the District office or remotely through a secure VPN connection.

The District is investigating an upgrade to the system to allow for supervisory control of all critical field reclosers, a function which is currently unavailable. This function would allow District staff to remotely enable or disable all reclosers settings, including setting all reclosers to non-reclose mode (i.e. one-shot operation) annually as needed to minimize the risk of fires caused by arcing or faults. Currently we need to manually place these reclosers on non-reclose. However, as

stated in the introduction, the capital costs for this capability is very large and there are some concerns about unintended consequences of automating safety equipment during extreme fire danger. The District will continue to invest in SCADA while finding new ways to reduce the risk of the District causing a catastrophic wildfire.

## E. WEATHER MONITORING

The District, due to our very small geographic service territory (~10 miles by ~4 miles), monitors current and forecasted weather data from a variety of sources including:

- The National Oceanic and Atmospheric Administration (NOAA);
- United States National Weather Service (NWS);
- United States Forest Service Wildland Fire Assessment System;
- National Fire Danger Rating System;
- National Interagency Fire Center – Predictive Services for Northern and Southern California;
- Internal knowledge of local conditions
- Additional data resources from NV Energy and Liberty Utilities.

Each day, the District will assign one of four operating conditions based on the relevant weather data and knowledge of local conditions:

**(1) Normal:** During normal conditions, no changes are made to operations or work procedures.

**(2) Elevated:** During elevated fire-risk conditions, District staff will perform normal work with an elevated level of observation for environmental factors that could lead to an ignition.

**(3) Extreme:** During extreme fire-risk conditions, the District may delay routine work on energized primary lines (12.47kV & 14.4kV). The District may perform necessary work to preserve facilities or property. Extreme weather is defined as: weather phenomena that are at the extremes of the historical distribution and are rare for a particular place and/or time, especially severe or unseasonal weather. Such extremes include severe thunderstorms; severe snowstorms; ice storms; blizzards; flooding; high winds; or heat waves.

**(4) Red Flag:** The National Weather Service issues Red Flag Warnings (RFW) & Fire Weather Watches to alert fire departments of the onset, or possible onset of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity[8]. An RFW is issued for weather events which may result in extreme fire behavior that will occur within 24 hours. An RFW is the highest alert. While an RFW is in effect, the District's crews limit hot-work such as welding, grinding, cutting and the District will delay all routine work

[8] http://www.fire.ca.gov/programs/communications/red-flag-warnings-fire-weather-watches/

on energized primary lines (12.47kV & 14.4kV). The District may perform necessary work to preserve facilities or property. Vegetation Management and line crews have on-site fire suppression equipment and conduct tailboard meetings to confirm the location and readiness of the fire suppression equipment.

## F. DESIGN AND CONSTRUCTION STANDARDS

District electric facilities are designed and constructed to meet or exceed relevant Federal, State, and industry standards. The District treats State of California, General Order 95 (GO 95) as a guiding standard for design and construction of overhead electrical facilities. The District meets or exceeds all standards in GO 95 and constructs its facilities consistent with the "heavy-loading" district as defined by the CPUC (Exhibit B). In short, the District's overhead electric system is designed to withstand severe winter storms; including extreme wind and snow events. These atmospheric conditions are well in excess of what occurs during typical RFW's. As a result of this approach, the District's system is hardened and more resilient to extreme weather events than systems that do not build to a heavy-loading district standard.

As stated above, the District's electric facilities are designed to meet or exceed GO 95 for design, construction, and maintenance. While the District may choose to exceed the standard based on local conditions and/or knowledge, the minimum requirement is to meet the standard over the duration of the action. If review/inspection shows that the minimum standard is not sufficient to maintain compliance, the District adapts accordingly. This is particularly true for vegetation management which is covered in the next section.

The District monitors trends in materials, technology and work methods to evaluate prudent operational changes to enhance the efficacy of wildfire mitigation. These evaluations include:

- Engineering Pole Ranking Tools;
- Intrusive Pole Inspections;
- New Construction Methods/Materials;
- Undergrounding New Construction; and
- Tree Wire (covered wire) Use, where applicable.

## G. VEGETATION MANAGEMENT

The District meets or exceeds minimum State standard(s) for vegetation management practices by maintaining a five year trim cycle. For distribution level facilities, the District meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) GO 95 Rule 35 (Exhibit C); and (4) the GO 95 Appendix E Guidelines to Rule 35 (Exhibit D). These standards require significantly increased clearances in a HFTD area. The time-of-trim guidelines do not establish a mandatory standard, but instead provide guidance to utilities. The District will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance. Adjusting trim cycles to maintain minimum clearances

between trim cycles is accomplished through thorough and routine inspections and key component of meeting or exceeding GO 95 standards.

The District has developed a comprehensive Vegetation Management Plan (VMP) (Exhibit G) that complies with the aforementioned statues. In addition, the VMP is subject to periodic updates as practices and technology evolve.

As part of the District's Vegetation Management Plan, contractors and internal District staff are equipped with District provided mobile devices to record the location and dates of vegetation management related activities. Vegetation management generally consists of removing, cutting, trimming, and clearing away of trees, tops, limbs, branches, bushes, vines, foliage, the removal of hazard trees and inspection of legacy tree attachments in proximity to District electrical lines, stations, and property within Public Utility Easements. All tree trimming inspection records are stored in the District's Geographic Information System (GIS) and are used for reporting yearly tree trimming progress and planning future tree trimming routes and locations.

In addition to planned Tree Trimming, the District's Customer Information System (CIS) also records customer calls regarding concern for potential tree hazards in proximity to electric lines. Service Orders are created for crews to respond to and correct hazard tree reports, as well as record the outcome of the hazard. This information can also be used for reporting the number of customer calls regarding hazard trees, number of hazard tree removals, and number of occurrences by location. This program began in 2005 and, continuing for 2022, the District will be on a five year cutting cycle and adjust as needed.

It should be noted that the District fully removes any dead or dying vegetation within the vegetation management area. Given our high mountain environment and relatively short growing season, the District has not had problems with treatment areas being replaced with fast-growing grasses or invasive species. The District also uses minimal or no herbicides while conducting vegetation management.

(Vegetation management practices within the District's service territory are governed by: Public Resource Code 4292; Public Resource Code 4293; and, California General Order 95, Rule 35.)

## H. INSPECTIONS

The District meets or exceeds the minimum inspection requirements provided in CPUC GO 165, Table 1 (Exhibit E) and CPUC GO 95, Rule 18 (Exhibit F). Pursuant to these rules, the District inspects electric facilities in the High Fire Threat District areas more frequently than its counterparts in non-HFTD areas. Additionally, District staff use their knowledge of the specific environmental and geographical conditions to determine when areas may require more frequent inspections and/or mitigations. The District utilizes GO 95 and GO 165 as its guiding document, as part of a robust asset management/maintenance program.

The District's GIS contains records for electric system inspections performed as part of the General Order (G.O) Inspection program. District Crews are equipped with mobile devices with

access to the District's GIS data in order to record inspections and report any potential issues to be corrected. Beginning in 2019, this inspection program was extended to capture potential tree hazards in proximity to electric infrastructure. Corrections and repairs to the system are also recorded as part of this program, and data is available to the District's engineering and operations staff in order to plan repairs and upgrades to the electric system. This program began in 2011.

The District's goal is to ensure that all inspections performed within its service territory are complete before the beginning of the historic fire season, typically by June 1. The District monitors drought conditions and other relevant factors throughout the year to determine if inspections should be completed on an adjusted timeline.

If District staff discovers a facility in need of repair that is owned by an entity other than the District, the District will notify the facility owner in writing, as well as notify the agency having jurisdiction.

## I. FR3 INSULATING FLUID

Envirotemp FR3 fluid is a dielectric insulating fluid that is a natural ester derived from vegetable oils. FR3 has an extremely high flashpoint, in excess of two times that of its traditional mineral oil counterpart (360 degrees vs 160 degree Celsius). The District switched exclusively to FR3 dielectric insulating fluid in 2008 and it is now a requirement for all new oil insulated equipment, including: transformers (pole bolted & pad-mounted); substation transformers; and substation voltage regulators. Staff continues to evaluate the appropriateness of FR3 insulating fluid in its future procurement of pad-mounted switchgear.

## J. NON-EXPULSION CURRENT LIMITING FUSES

In 2019, the District started a pilot project in a Tier 3 neighborhood to evaluate the suitability of non-expulsionary or current limiting fuses on its overhead system. Typical utility industry practice is to install expulsion fuses on transformer and tap-lines as a means of protecting and isolating parts of the system that have experienced a faulted condition.

Expulsion fuses utilize a silver-link element in an arc-tube that vents gas and potentially molten metal to atmosphere as a means of extinguishing an arc created by a faulted condition. The molten metal, however, can be a source of ignition for fire.

In contrast, while significantly more expensive, non-expulsionary current-limiting fuses are a non-venting fuse encapsulated within a tube to contain the arc and gases, which minimizes the potential for molten metals to be expelled. The District selected Eaton's Cooper Power full range current limiting dropout ELF fuse for the Pilot project. The ELF fuse has been granted permanent exemption by Cal Fire from pole clearance requirements as specifically listed in CCR Title 14, section 1255.10.

As part of the District's ELF Fuse Pilot Project, all in-line and transformer fuse locations where an ELF fuse has been installed is tracked in the GIS and tagged with ELF identifier. This allows the District to track and report any outage or hazard occurrences on ELF fuses through the District's Responder OMS. This program began in early 2019. Staff completed the evaluation of the ELF fuses, validating and confirming their suitability and effectiveness for the District's electric system. Beginning 2021, staff implemented a three year capital improvement project and funding to replace all overhead fuses in the distribution system with ELF fuses and non-load break cut-outs.

In February of 2021 staff were notified by Eaton of an ELF Fuse recall due to a failed manufacturer process. This resulted in District staff having to inspect all fuses installed and replace suspect fuses. This recall was further hindered by material shortages and ongoing procurement delays. Though the District is committed to completing this system hardening project, we recognize we will not meet our original compellation date of December 31, 2023 and are evaluating the potential delays and mitigations.

## K. WORKFORCE TRAINING

The District has developed rules and complementary training programs for its workforce to reduce the likelihood of an ignition. All field staff will be trained annually in the following areas: in the content of the WMP; in proper use and storage of fire extinguishers; in required pre-job briefings to discuss the potential(s) for ignition, environmental conditions (current and forecasted weather that coincides with the duration of work for the day); and in identifying the closest fire extinguisher.

District staff are also active in electric utility joint-action groups such as the California Municipal Utilities Association, Northern California Power Agency, Utah Associated Municipal Power Systems, and the American Public Power Association to leverage the industries collective experience and to take advantage of training and other workforce development activities.

## L. RECLOSER OPERATIONAL PRACTICE

Annually, during actual wildfire season, the District disables all automatic reclosing function for all Automatic Circuit Reclosers (ACRs or reclosers) on its system, (i.e. one-shot operation). This ensures there will be no automatic circuit reclosing during the fire season. Fire season is typically defined as early June through early November but may be extended based on actual fire danger and environmental impacts due to climate change.

Operational needs may change due to extended/early winter conditions within the service territory of the District. During these types of weather events the Electric Operations Manager or his/her designee may suspend the summer one shot operation practice and return the automatic system reclosers to normal operation. In the event there was the lack of winter precipitation due to climate change, reclosers may be placed on one shot early ahead of the summer months due to the dry conditions.

## M. DE-ENERGIZATION

The District, in consultation with the local Truckee Fire District and water utility staff, has evaluated the efficacy of a Public Safety Power Shutdown (PSPS) type of de-energization program. Major considerations included: the Districts heavy-loading construction standards which are hardened to withstand high wind, snow loading, and ice formation; the offset between when the District's overhead electric distribution system experiences its most severe weather threats (i.e. severe winter storm(s) and the weather conditions during red-flag warnings (i.e. typically in late Summer/Fall with only moderate weather threats); and the potential negative impacts to fire response, water supply, public safety, and emergency communications should a fire occur while the District de-energized a portion or all of its system.

The District, due to its location from 6,000 to 8,500 feet altitude, experiences severe winter weather including blizzards and atmospheric river precipitation events. It is not uncommon for these extreme weather events to include, in addition to rain, snow, and ice, winds in excess of 100 miles per hour. For these reasons, the District's overhead electric system is built to a heavy-loading construction standard. In addition, during these extreme winter events the wildfire threat is minimal.

During red flag warnings however, which again occur in late Summer/Fall, the winds that accompany these events are typically a fraction of what the District's overhead electric distribution system experiences in the winter and what our predominately pine forests can withstand. During red flag warnings, the most likely cause of wildfire ignition is lightning strikes, transportation, illegal fireworks, or recreation.

While the District is willing to take whatever steps are necessary to protect our community and the public that we serve, the risks and potential consequences of initiating a PSPS-type event are significant and extremely complex. Foremost concerns include: potential loss of water supply to fight wildfires due to loss of production wells and pumping facilities, negative impacts to emergency response and public safety due to the historic disruptions in Internet and cell phone service during periods of extended power outages, and the loss of key community infrastructure and operational efficiency that occurs during power outages.

Based on the above considerations, the risks of implementing a PSPS-type program seem to far outweigh the chances that the District's electric overhead distribution system would cause a catastrophic wildfire. The District, on a case-by-case basis, has historically and will continue to consider de-energizing a portion of its system in response to a known public safety issue or in response to a request from an outside emergency management/response agency. Any de-energizing will be performed in coordination with District water utility staff and key local partner agencies. The District will also monitor the evolution of PSPS implementation by other California electric utilities to continue to refine its evaluation of this important topic.

While the District has not implemented PSPS-type program for its system, the District's is a Transmission Dependent Utility of NV Energy who, shortly after the District adopted the original WMP, announced their own de-energizing program called Public Safety Outage Management

(PSOM). NV Energy originally included the District's service territory in their original program, later removed the District's service territory from the program, for the 2019 and 2020 fire seasons, and then included the District's service territory again in the program for the 2021 fire season. It is again possible that, during extreme fire danger, the District could experience a system-wide outage due to a loss of transmission from NV Energy which will likely be from a PSOM event.

As a result the District, and other key local agencies, held a series of meetings with NV Energy to back in 2019 and again in 2021and 2022 to fully understand the conditions under which NV Energy would de-energize transmission and to develop communication protocols so that NV Energy could notify the District and the District could notify key agencies and our customers. The District has developed a list of critical agencies/emergency responders with a commitment to make direct contact should NV Energy announce a potential PSOM. The District has also conducted extensive customer outreach to encourage customers to sign up for PSOM alerts. The District did implemented a new Nixle District emergency notification tool where customers, communication providers, and the general public can sign up for District emergency text notifications by texting TDPUD to 333111. It should be noted that NV Energy has not had any PSOM events in to date, but at least one is expected for 2022.

## N. RE-ENERGIZATION

District staff, using the GIS system, have created Re-energization route maps to identify and prioritize circuits for re-energization. In order to patrol the District's primary overhead lines in a timely manner prior to re-energizing after an outage event, District staff have identified and categorized patrol routes by access type for the electric system. This includes overhead lines that can be patrolled by driving, walking, ATV, or helicopter.

These routes have also been created for patrolling District feeders in order to complete patrols in the most efficient and timely manner possible. Driving routes for electric lines along roadways have been created in order to eliminate or reduce back-tracking. In addition, drop off and pick up locations for lines requiring walking or snow-shoeing have been identified in order to utilize electric crew time during an outage in the most efficient way possible and ensure that power is restored both safely and quickly.

District staff used the GIS system to identify and create restoration maps based on priorities. These include:

- Critical loads, (District Office, Fire, Police, Hospital, Telecom)
- TDPUD water facilities
- Circuit loading, (Customers per circuit)
- Residential vs. Commercial

Each feeder was ranked with a score of 1-17 based on the number of Total Customers (TC), Critical Customer Count (CC), Residential Customer Count (RC), Commercial Customer Count (CM), and number of TDPUD Water Faculties served (WF). The ranking score was then totaled to determine a Total Priority Ranking (TC+CC+RC+CM+WF = Total Priority Ranking). This would be

the basis for restoration order, then physical circuit layout within the District was factored in to determine the shortest patrol route and fastest restoration time.

This program began in the summer of 2019 and continues to be refined.

## O. TREE ATTACHMENTS (LEGACY ATTACHMENTS)

The District has legacy attachments to trees that consist of: service drop(s); secondary conductor(s); or, security lighting. Although these installations are permitted pursuant to Title 14 CCR §1257, the District does not, and has not for nearly two decades, engage in this practice for new installations.

Existing tree attachment service drops are tracked within the GIS in order to identify locations where trees and branches may be a potential hazards to electric infrastructure and provide District crews with location information for inspecting tree attachments. Legacy tree attachments are no longer allowed. When an existing tree attachment fails or is damaged, a new utility pole is installed and used for securing all secondary attachments.

Pursuant to Title 14 CCR §1257; annually starting in 2020, contract tree crews are trimming the area of the attachments and performing an inspection. Any hazard found is immediately reported to District staff for mitigation. All new service installations will be fed from an underground source and comply with Article P – Proposed Service Requirements.

## P. PROPOSED SERVICE REQUIREMENTS

Since 1995, District code has required all new or reconstructed developments to take service from the District via an underground system; however, limited exceptions exist in current District Code for some single family residences. The District seeks to minimize the installation of overhead power lines where practicable and will therefore, recommend an underground requirement for all electric services and consider the following:

- All new installations will be required to take service from an underground source;
- Like-for-like panel replacements will be required to convert to underground service;
- Upgraded panel replacements will be required to convert to underground service;
- The District will not attach to trees for any reason;
- The District may consider a cost-sharing program for customers that desire to convert an existing overhead service to an underground service; and
- Customer(s) receiving service via legacy tree attachment(s) will be required to comply with Article P – Proposed Service Requirements.

## Q. COVERED PRIMARY JUMPER WIRE

The District is implementing the use of covered (i.e. Tree wire) primary jumper wire in place of bare wire. Primary jumpers are used to connect transformers, UG risers and fuse cutouts to main overhead circuit conductors. The use of covered primary jumper wires helps to minimize the

unintentional contact with wildlife and windblown debris. This practice will also help mitigate the possibility of a flashover that may result in ignition of electrical facilities and the surrounding areas. The District has also evaluated the use of covered conductors for the overhead distribution system but, due mostly to the heavy loading district construction standards discussed in the document, this option is not feasible.

## VII. COMMUNITY OUTREACH AND PUBLIC AWARENESS

As a key public agency, the District has extensive relationships across all organizations in the community. This includes direct interactions with the agencies directly responsible to fight fires (Truckee Fire District and Cal Fire), agencies leading emergency response efforts (Town of Truckee, Nevada County, and Placer County), along with key public and private land-owners (United States Forest Service, California State Parks, Tahoe Donner Association, Tahoe-Truckee Airport District, etc.). The local agencies and land-owners work collaboratively together to educate each other and the community. District staff regularly provide information to these agencies including updates on fire, vegetation management requirements, and District programs.

It should be noted that, based on the above and due to the District's integral role in local government, the District also does extensive communication and outreach regarding vegetation management practices. This includes direct communication with property owners and quick resolution of any concerns or disputes.

As the local electric and water utility, the District has robust community outreach and marketing programs to effectively communicate with our customers and community. All Board meetings are publicly agendized and the regularly scheduled Board meetings are broadcast live on local TV (Truckee Tahoe Community Television), streamed live from the District's website (www.tdpud.org), and archived on District's website for access after the meeting.

The District is active in the community, typically attending dozens of community events each year including: Truckee Day; Truckee Thursday's; Tahoe Truckee Earth Day; Truckee Home Show; Truckee Farmers Market; Truckee Cleanup Day; and Big Truck Day. The District staffs booths, has staff available to interact with the community, and delivers energy, water, and customer programs directly to our customers. This includes providing information on the Districts Vegetation Management Program, free de-energizing of customers overhead service connections to allow them to clear defensible space while working safely, and educating the community on the District's overall efforts to respond to catastrophic wildfires. While some of these activities have been suspended during the COVID-19 pandemic, the District intends to continue this effective engagement in the future.

The District also has robust marketing and communication efforts leveraging the website (www.tdpud.org), social medial (Facebook/Twitter), bill stuffers, print ads, and digital marketing. The District is a regular advertiser in the Sierra Sun, Moonshine Ink, Truckee Chamber of

Commerce, Tahoe Donner News, The Shire, and on KTKE 101.5 local radio. In addition, the District has an informative customer lobby designed to enhance customer engagement with ready access to customers service representatives, extensive digital media to educate customers, and engaging displays to capture the visitors attention.

With regards to fire-related community outreach, the District has been very active promoting the Vegetation Management Program; including regulatory changes increasing the vegetation clearances. The District sends out an annual bill insert to all customers along with information on the website, social media, digital media, print advertising, and radio. The District has worked with Tahoe Donner Association, which is located in a Tier 3 area and has almost half of the District's residential connections, to include an extensive article in the monthly Tahoe Donner News regarding fire, vegetation management, and everyone doing their part.

District staff previously participated in a local event (Wildfire Prevention and Preparedness Town Hall) hosted in partnership by the Nevada County Office of Emergency Services, Truckee Police Department & Emergency Services, and Truckee Fire Protection District. District staff set up a table-top at the event to share information and participated in a panel discussion. Other participants included: CAL FIRE, Placer County Office of Emergency Services, Fire Safe Council of Nevada County, Placer County Fire Safe Alliance, Truckee Tahoe Unified School District, Tahoe National Forest, Tahoe Forest Hospital, and California Highway Patrol. Participation in similar events occurred in 2021 but was limited due to the COVID-19 pandemic.

For preparation of the original SB 901 Wildfire Mitigation Plan, District staff worked extensively with Truckee Fire Protection District, CAL FIRE, Town of Truckee, Nevada & Placer Counties, and many other local agencies and stakeholders. For the adoption of the original Plan, the District conducted a publically agendized Board Workshop on wildfire, March 6, 2019, a second Workshop specifically on the WMP in June 5, 2019, followed by formal adoption of the WMP by the District's Board in July 17, 2019.

Since adoption of the plan by the District's Board in July of 2019, the WMP was reviewed by an independent, third-party expert (Navigant Consultant) who confirmed that the District's WMP meets the requirements of SB901. Navigant made a presentation to the District's Board in December of 2019.

Annually the District presents WMP revisions to the Board for approval in June of each year prior to submitting the WMP to the Wildfire Safety Advisory Board by July of the same year. Adoption of the updated Plan is done via publically agendized meetings with final Adoption by the District's Board for the 2022 WMP on June 1, 2022.

## VIII. RESTORATION OF SERVICE

Although the District does not have a PSPS-type operational practice, it may de-energize a portion or all of the overhead electric system for one of the following reasons:

- If an outside emergency management/emergency response agency request a power shutdown;
- If the District elects to de-energize segments of its system due to extreme weather or other safety consideration; or
- As a result of a NV Energy Public Safety Power Shut Off (PSOM) event or transmission outage.

In such events that occur during wildfire season, the District staff will patrol the affected portions of the system before the system can be re-energized. Suspect equipment or distribution lines that cannot be patrolled will remain de-energized. In addition, system performance abnormalities will be monitored via the District's SCADA system and its AMI/OMS systems. For more information please see Section VI.N - Re-Energization.

In addition, TDPUD participates with California Emergency Management Agency (CEMA) and California Utilities Emergency Association (CUEA). CEMA is a California agency responsible for overseeing and coordinating emergency preparedness, response, recovery and homeland security activities while CUEA serves as a point-of-contact for critical infrastructure utilities and Cal OES before, during and after an event to facilitate communications, provide emergency response and support emergency planning, mitigation, training, exercises and education.

Given NV Energy's current PSOM transmission de-energization program, the District did fully implement and test new re-energization protocols in 2021 in preparation for a system-wide wildfire safety power outage. District staff worked in close collaboration with NV Energy to establish communication protocols for NV Energy to communicate the end of the extreme wildfire danger and to coordinate the timing of NV Energy transmission system visual inspections/re-energization and the District's entire distribution system visual inspection/re-energization. Both NV Energy and the District are committed to restoring power as quickly and safely as possible.

To help the District's customers and community be aware and prepared for NV Energy PSOM wildfire safety transmission power outages, the District has spent significant time and resources to communicate both the timing of a PSOM along with the expected start of restoration.

# IX. EVALUATING THE PLAN

## A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

The District is tracking two metrics to measure the performance of this Plan:

(1) Number of fire ignitions; and

(2) Wire down events within the service territory

In 2019, District staff started capturing wire down and fires caused by District facilities in GIS. This will help with reporting and identifying trouble areas in the future Metric

Metric 1: Fire Ignitions

For purposes of this metric, a fire ignition is defined as follows:

- The District's electrical infrastructure was associated with the fire;
- The fire was self-propagating and of a material other than electrical;
- The resulting fire traveled greater than one linear meter from the ignition point; and
- The District has knowledge that the fire occurred.

To evaluate this metric, the District reports the number of fires that occurred that were less than 10 acres in size. Any fires greater than 10 acres will be individually described. Any ignition will be reported to management and firefighting agencies.

In 2021, the District recorded one fire ignition event. This event was not due a failure of distribution equipment but rather because of a plane crash into a residential neighborhood. This tragic incident impacted overhead distribution equipment and the fuels from the aircraft caused an intense fire damaging District equipment.

Metric 2: Wires Down

The second metric is the number of wire-down events within the District's service territory. For purposes of this metric, a wire-down event includes any instance where primary distribution conductor falls to the ground or on to a foreign object, defined as: any object not specifically an asset of the District (i.e. phone, cable, trees, etc.).

The District will not normalize this metric by excluding unusual events, (i.e. severe storms, car versus pole incidents, or snow unloading). However, the District will supplement this metric with a qualitative description of any such unusual events.

In 2021 the District recorded seven wire down events. Six of these events happened in December of 2021 during an atmospheric river event in which the District received significant damage to its electrical distribution system. In each of these cases the cause was a tree down due to heavy wet snow. The seventh event was the result of the plane crash mentioned in Metric 1 above.

## B. IMPACT OF METRICS ON PLAN

It is important to note that the District anticipates relatively limited data will be gathered through these metrics, particularly in the initial years. Therefore, it will be difficult to draw meaningful conclusions based on this data. The District will evaluate modifying these metrics or adding additional metrics in future years as more data becomes available and situational awareness continues to improve. In the end, the District is seeking metrics that will meaningfully track efforts to reduce the risk of a District ignited catastrophic wildfire.

## C. MONITORING AND AUDITING THE PLAN

This Wildfire Mitigation Plan is subject to review by the District's Board of Directors. The District will present this Plan to its Board on an annual basis in a public setting with agendized materials. Development of the plan, along with the updates, is done collaboratively with local emergency response and fire agency.

The Electric Utility Director, or designee, will at least, on a semi-annual basis, update the General Manager regarding the Plan's implementation, identified deficiencies or recommendations for updating. Any critical or immediate concerns will be brought to the District's Board of Directors.

## D. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

Achieving a robust, all-encompassing plan to mitigate wildfire risk is the primary objective of this document. Staff have the role of vetting current procedures and recommending changes or enhancements to build upon non-optimized strategies in the Plan. Either due to unforeseen circumstances, regulatory changes, emerging technologies, or other rationales, deficiencies within the Plan will be sought out and reported to the Board, at a minimum, in the form of an updated Plan on an annual basis.

The Electric Utility Director, or their designee, will be responsible for spearheading discussions on correcting deficiencies when updating the Plan for its annual presentation to the Board. This is done in collaboration with sister utilities and joint-action groups such as CMUA, NCPA, and SCPPA. All stakeholders are empowered to suggest improvement opportunities, including, but not limited to: field crews; management; auditors; fire safety professionals; and, members of the public.

## E. MONITORING THE EFFECTIVENESS OF INSPECTIONS

The District currently utilizes General Orders 95 (GO95) and 165 (GO165), respectively, as its guide to inspect its system. Field staff routinely patrol the service territory and correct deficiencies as they are encountered. The District tracks deficiencies that are repaired upon discovery within its Geographical Information System (GIS) and consistent with the guidelines of GO 95 and 165, respectively. Further, for deficiencies that cannot be repaired upon discovery, they are assigned a priority level. The repairs are defined as Level 1 (highest), Level 2 (moderate), or Level 3 (lowest) as defined by GO 95, Rule 18 (Exhibit F), with the discovery, remedy and supporting documentation being tracked within the District's Geographical Information System (GIS).

Monitoring the effectiveness of inspection practices will occur through ongoing tracking and annual review of its findings including deficiencies found and corrective actions taken. The Electric Operations Manager or their designee supervises the Vegetation Management Plan as well as all routine field work and equipment and line inspections. Related strategies that mitigate

wildfire risk will be identified and proposed within the next iteration of the Plan. Aggregating this data will guide future decision-making on the direction of the wildfire mitigation strategy with the intention that incidents will become less frequent or less hazardous system wide.

District staff will report as part of its annual WMP presentation to the Board, the number of deficiencies found; the number of deficiencies repaired within the defined priority timeline and the number of outstanding deficiencies that were not repaired within the defined timeline.

## X. INDEPENDENT AUDITOR

Public Utilities Code section 8387(c) requires the District to contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of this Plan. The independent evaluator must issue a report to be posted on the District's website. This report must also be presented to the District's Board at a public meeting. The District hired Navigant Consulting in 2019 to conduct the independent audit. Navigant presented their finding to the District Board on December 4, 2019 and concluded that:

1. TDPUD's WMP aligns appropriately with PUC Section 8387 and includes all required elements
2. TDPUD's Plan is determined to be comprehensive

The District's WMP satisfied the requirements of SB 901and this updated WMP considers the previous recommendations of the independent auditor. It should be noted that the District, in order to maximize the benefit of direct investments in wildfire prevention, only intends to use the Independent Auditor when there is value which is currently anticipated to be during comprehensive revisions of the WMP every three years or if major changes are made in between.

## XI. APPENDIX

Exhibit A – California Public Utilities Commission Fire Threat Map, Adopted January 19, 2018/ Revised March 2021

Exhibit B – California Public Utilities Commission, Heavy loading district Map

Exhibit C – California Public Utilities Commission, General Order 95, Rule 35

Exhibit D – California Public Utilities Commission, General Order 95, Appendix E

Exhibit E – California Public Utilities Commission, General Order 165, Table 1, Distribution Inspection cycles

Exhibit F – California Public Utilities Commission, General Order 95, Rule 18

Exhibit G – Vegetation Management Plan

Exhibit H – Pole Replacement Ranking Tool

## XII. REFERENCE DOCUMENTS

Memorandum, RE: Current Limiting Fuses

Memorandum, RE: Disabling of Automatic Circuit Reclosers (ACRs)

Memorandum, RE: Hotline Work during Extreme Weather or RFW Events

Memorandum, RE: Mandatory Reporting Requirements – Fire Ignition

Memorandum, RE: Mandatory Reporting Requirements – Wire Down

Memorandum, RE: Re-Energization of Lines

Memorandum, RE: Tree Attachments

The following documents are incorporated by reference only, as some are very large, and as they are also publically available on multiple State agency and other web sites:

Public Resources Code section 4292

Public Resources Code section 4293

California Code of Regulations Title 14 § 1257 (PRC 4293)

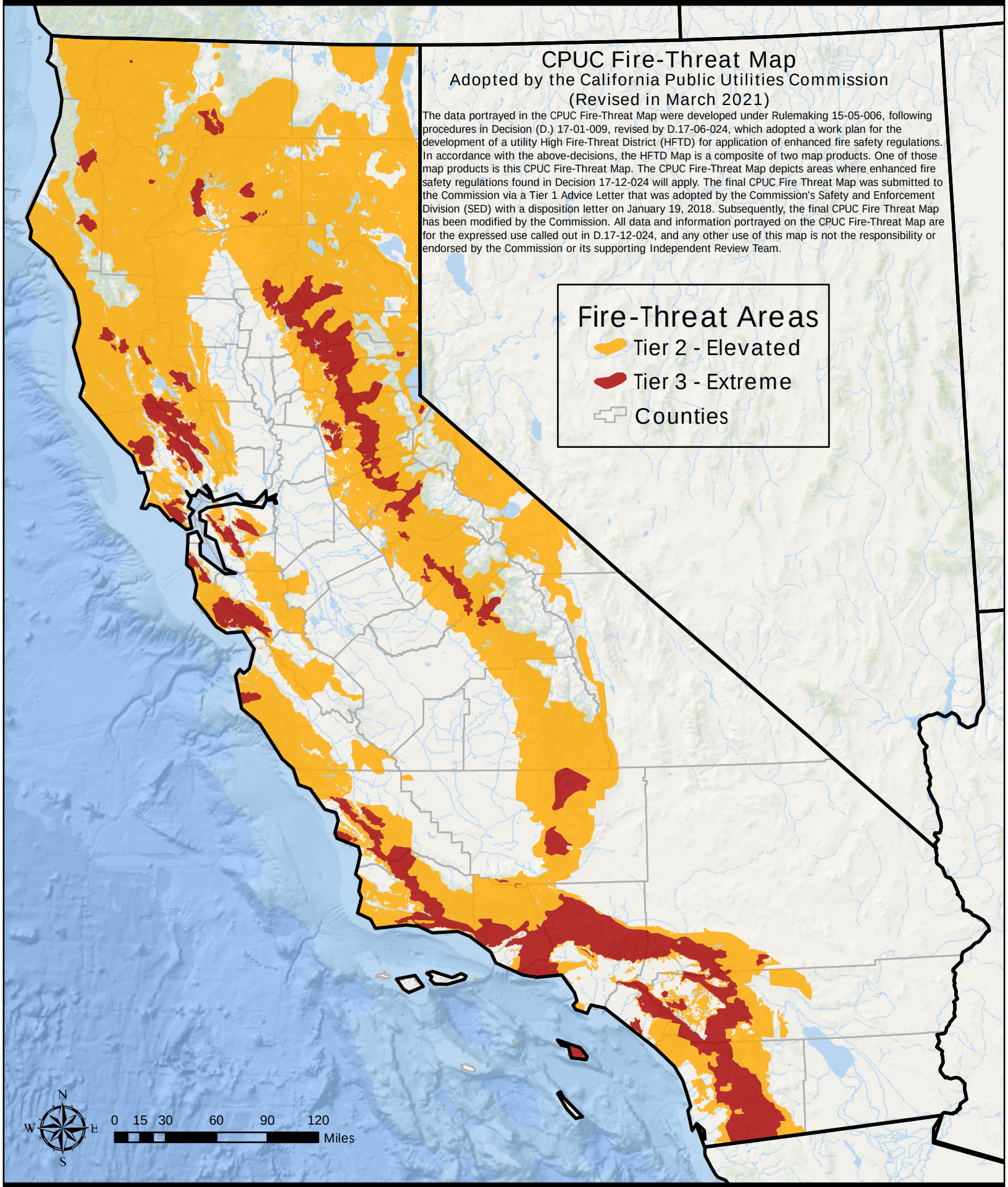
Public Utilities Code Section 8387

State of California, General Order 95

State of California, General Order 165

# State of California - Public Utilities Commission

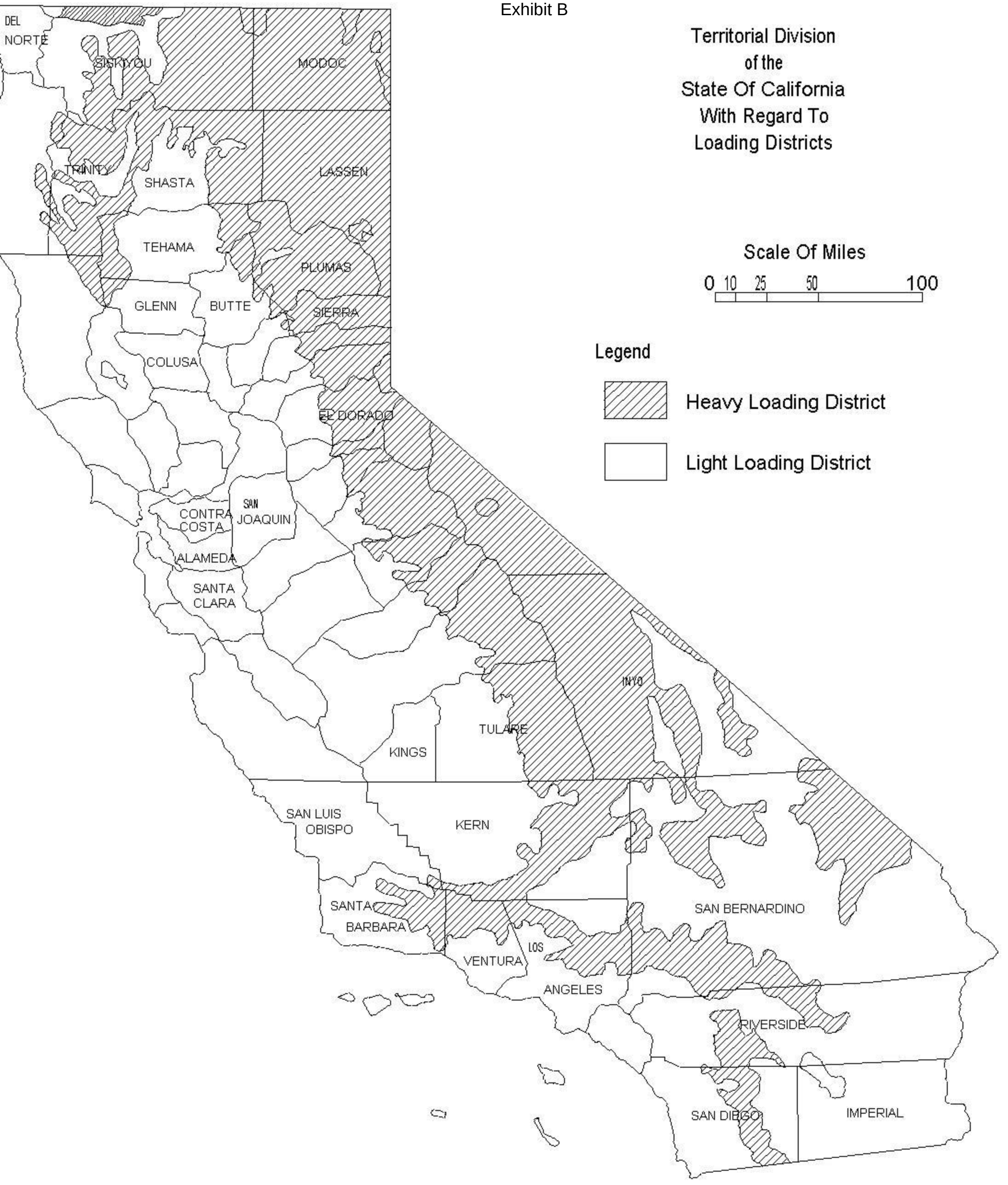
EXHIBIT A




For more information about the data and map depicted,
or other matters related to Utility wildfire safety,
please contact Terrie Prosper at Terrie.Prosper@cpuc.ca.gov
Basemap Sourced from ESRI (World Oceans).

Exhibit B

# Territorial Division of the State Of California With Regard To Loading Districts




Scale Of Miles

0 10 25 50 100

Legend

Heavy Loading District

Light Loading District

See Rules • 43.1 And • 43.2

# General Order 95

## Section III

### Requirements for All Lines

### 35 Vegetation Management

Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions, shall be maintained. (Also see Appendix E for tree trimming guidelines.) These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.

When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that dead, rotten or diseased trees or dead, rotten or diseased portions of otherwise healthy trees overhang or lean toward and may fall into a span of supply or communication lines, said trees or portions thereof should be removed.

Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that its circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension, rearranging or replacing the conductor, pruning the vegetation, or placing mechanical protection on the conductor(s). For the purpose of this rule, abrasion is defined as damage to the insulation resulting from the friction between the vegetation and conductor. Scuffing or polishing of the insulation or covering is not considered abrasion. Strain on a conductor is present when vegetation contact significantly compromises the structural integrity of supply or communication facilities. Contact between vegetation and conductors, in and of itself, does not constitute a nonconformance with the rule.

Note: Revised January 13, 2006 by Decision No. 05-01-030, August 20, 2009 by Decision No. 09-08-029 and January 12, 2012 by Decision No. 12-01-032

**EXCEPTIONS:**

**(1)** Rule 35 requirements do not apply to conductors, or aerial cable that complies with Rule 57.4-C, energized at less than 60,000 volts, where trimming or removal is not practicable and the conductor is separated from the tree with suitable materials or devices to avoid conductor damage by abrasion and grounding of the circuit through the tree.

**(2)** Rule 35 requirements do not apply where the supply or communication company has made a "good faith" effort to obtain permission to trim or remove vegetation but permission was refused or unobtainable. A "good faith" effort

shall consist of current documentation of a minimum of an attempted personal contact and a written communication, including documentation of mailing or delivery. The written communication may include a statement that the company may seek to recover any costs and liabilities incurred by the company due to its inability to trim or remove vegetation. However, this does not preclude other action or actions from demonstrating "good faith". If permission to trim or remove vegetation is unobtainable and requirements of exception 2 are met, the company is not compelled to comply with the requirements of exception 1.

**(3)** The Commission recognizes that unusual circumstances beyond the control of the utility may result in nonconformance with the rules. In such cases, the utility may be directed by the Commission to take prompt remedial action to come into conformance, whether or not the nonconformance gives rise to penalties or is alleged to fall within permitted exceptions or phase–in requirements.

Note: Revised November 6,1992 by Resolution No. SU–15, September 20, 1996 by Decision No. 96–09–097 and January 23, 1997 by Decision No. 97–01–044.

**(4)** Mature trees whose trunks and major limbs are located more than six inches, but less than the clearance required by Table 1, Cases 13E and 14E, from primary distribution conductors are exempt from the minimum clearance requirement under this rule. The trunks and limbs to which this exemption applies shall only be those of sufficient strength and rigidity to prevent the trunk or limb from encroaching upon the six–inch minimum clearance under reasonably foreseeable local wind and weather conditions. The utility shall bear the risk of determining whether this exemption applies, and the Commission shall have final authority to determine whether the exemption applies in any specific instance, and to order that corrective action be taken in accordance with this rule, if it determines that the exemption does not apply.

Note: Added October 22, 1997 by Decision No. 97–10–056

| Previous Code | Main Page | GO 95 Startup Page | Change List for this Rule | Search GO 95 | Section Main Page | Next Code |
|---|---|---|---|---|---|---|

# General Order 95

## Appendix E

### Clearance of Poles, Towers and Structures from Railroad Tracks

The following are guidelines to Rule 35 .

The radial clearances shown below are recommended minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts where practicable. Reasonable vegetation management practices may make it advantageous for the purposes of public safety or service reliability to obtain greater clearances than those listed below to ensure compliance until the next scheduled maintenance. Each utility may determine and apply additional appropriate clearances beyond clearances listed below, which take into consideration various factors, including: line operating voltage, length of span, line sag, planned maintenance cycles, location of vegetation within the span, species type, experience with particular species, vegetation growth rate and characteristics, vegetation management standards and best practices, local climate, elevation, fire risk, and vegetation trimming requirements that are applicable to State Responsibility Area lands pursuant to Public Resource Code Sections 4102 and 4293.

| Voltage of Lines | Case 13 of Table 1 | Case 14 of Table 1 |
|---|---|---|
| Radial clearances for any conductor of a line operating at 2,400 or more volts, but less than 72,000 volt | 4 feet | 12 feet |
| Radial clearances for any conductor of a line operating at 72,000 or more volts, but less than 110,000 volts | 6 feet | 20 feet |
| Radial clearances for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts | 10 feet | 30 feet |
| Radial clearance for any conductor of a line operating at 300,000 or more volts | 15 feet | 30 feet |

Note: Added November 6, 1992 by Resolution SU–15 and revised September 20, 1996 by Decision No. 96–09–097 , August 20, 2009 by Decision No. 09-08-029, January 12, 2012 by Decision No. 12-01-032, December 21, 2017 by Decision 17-12-024.

**Table 1**
**Distribution Inspection Cycles (Maximum Intervals in Years)**

| | Patrol | | Detailed | | Intrusive | |
|---|---|---|---|---|---|---|
| | Urban | Rural | Urban | Rural | Urban | Rural |
| **Transformers** | | | | | | |
| Overhead | 1 | 2[1] | 5 | 5 | --- | --- |
| Underground | 1 | 2 | 3 | 3 | --- | --- |
| Padmounted | 1 | 2 | 5 | 5 | --- | --- |
| **Switching/Protective Devices** | | | | | | |
| Overhead | 1 | 2[1] | 5 | 5 | --- | --- |
| Underground | 1 | 2 | 3 | 3 | --- | --- |
| Padmounted | 1 | 2 | 5 | 5 | --- | --- |
| **Regulators/Capacitors** | | | | | | |
| Overhead | 1 | 2[1] | 5 | 5 | --- | --- |
| Underground | 1 | 2 | 3 | 3 | --- | --- |
| Padmounted | 1 | 2 | 5 | 5 | --- | --- |
| | | | | | | |
| Overhead Conductor and Cables | 1 | 2[1] | 5 | 5 | --- | --- |
| Streetlighting | 1 | 2 | x | x | --- | --- |
| Wood Poles under 15 years | 1 | 2 | x | x | --- | --- |
| Wood Poles over 15 years which have not been subject to intrusive inspection | 1 | 2 | x | x | 10 | 10 |
| Wood poles which passed intrusive inspection | --- | --- | --- | --- | 20 | 20 |

(1) Patrol inspections in rural areas shall be increased to once per year in Extreme and Very High Fire Threat Zones in the following counties Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura. Extreme and Very High Fire Threat Zones are designated on the Fire and Resource Assessment Program (FRAP) Map prepared by the California Department of Forestry and Fire Protection or the modified FRAP Map prepared by San Diego Gas & Electric Company (SDG&E) and adopted by Decision 12-01-032 in Phase 2 of Rulemaking 08-11-005. The fire-threat map is to be used to establish approximate boundaries and Utilities should use their own expertise and judgment to determine if local conditions require them to adjust the boundaries of the map.

Note: This General Order does not apply to cathodic protection systems associated with natural gas facilities.

Note: For the purpose of implementing the patrol and detailed inspection intervals in Table 1 above, the term "year" is defined as 12 consecutive calendar months starting the first full calendar month after an inspection is performed, plus or minus two full calendar months, not to exceed the end of the calendar year in which the next inspection is due.

# General Order 95

## Section I

### General Provisions

**18 Reporting and Resolution of Safety Hazards Discovered by Utilities**

For purposes of this rule, "Safety Hazard" means a condition that poses a significant threat to human life or property.

**A. Resolution of Safety Hazards And General Order 95 Nonconformances**

**(1)** a) Each company (including utilities and CIPs) is responsible for taking appropriate corrective action to remedy Safety Hazards and GO 95 nonconformances posed by its facilities.

b) Upon completion of the corrective action, the company's records shall show, with sufficient detail, the nature of the work, the date, and the identity of persons performing the work. These records shall be preserved by the company for at least ten (10) years and shall be made available to Commission staff upon 30 days notice.

c) Where a communications company's or an electric utility's actions result in GO nonconformances for another entity, that entity's remedial action will be to transmit a single documented notice of identified nonconformances to the communications company or electric utility for compliance.

**(2)** a) All companies shall establish an auditable maintenance program for their facilities and lines. All companies must include a timeline for corrective actions to be taken following the identification of a Safety Hazard or nonconformances with General Order 95 on the company's facilities.

The auditable maintenance program shall prioritize corrective actions consistent with the priority levels set forth below and based on the following factors, as appropriate:

- Safety and reliability as specified in the priority levels below;
- Type of facility or equipment;
- Location, including whether the Safety Hazard or nonconformance is located in the High Fire-Threat District;
- Accessibility;
- Climate;
- Direct or potential impact on operations, customers, electrical company workers, communications workers, and the general public.

There shall be 3 priority levels.

(i) Level 1:

- Immediate safety and/or reliability risk with high probability for significant impact.
- Take action immediately, either by fully repairing the condition, or by temporarily repairing and reclassifying the condition to a lower priority.

(ii) Level 2:

- Variable (non-immediate high to low) safety and/or reliability risk.
- Take action to correct within specified time period (fully repair, or by temporarily repairing and reclassifying the condition to a lower priority).

Time period for correction to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for nonconformances that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for nonconformances that create a fire risk located in Tier 2 of the High Fire-Threat District; (3) 12 months for nonconformances that compromise worker safety; and (4) 59 months for all other Level 2 nonconformances.

(iii) Level 3:

- Acceptable safety and/or reliability risk.
- Take action (re-inspect, re-evaluate, or repair) as appropriate.

b) Correction times may be extended under reasonable circumstances, such as:

- Third party refusal
- Customer issue
- No access
- Permits required
- System emergencies (e.g. fires, severe weather conditions)

**(3)** Companies that have existing General Order 165 auditable inspection and maintenance programs that are consistent with the purpose of Rule 18A shall continue to follow their General Order 165 programs.

## B. Notification of Safety Hazards

If a company, while performing inspections of its facilities, discovers a safety hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other company and/or facility owner of such safety hazard(s) no later than 10 business days after the discovery. To the extent the inspecting company cannot determine the facility owner/operator, it shall contact the pole owner(s), who shall be responsible for promptly notifying the company owning/operating the facility with the safety hazard(s), normally not to exceed five business days after being notified of the safety hazard. The notification shall be documented and such documentation must be preserved by all parties for at least ten years.

Note: Each pole owner must be able to determine all other pole owners on poles it owns. Each pole owner must be able to determine all authorized entities that attach equipment on its portion of a pole.

Note: Added August 20, 2009 by Decision No. 09-08-029 and revised January 12, 2012 by Decision No. 12-01-032, December 21, 2017 by Decision No. 17-12-024.

EXHIBIT G


# Vegetation Management Plan

**Revised: May 23, 2022**

# INDEX

# VEGETATION MANAGEMENT PLAN

## Truckee Donner Public Utility District

**Mission Statement – District Code, Title 1, Section 1.05.010**
*The Mission of Truckee Donner Public Utility District is to provide reliable, high quality utility and customer services while managing the District's resources in a safe, open, responsible, and environmentally sound manner at the lowest practical cost.*

### Introduction

The Truckee Donner Public Utility District (the District) has a responsibility to maintain vegetation so as not to threaten the safety and integrity of electric facilities. The District's Vegetation Management Plan (the Plan) is an important part of the District's effort to deliver safe, reliable and cost-effective electric service to customers. The goals of the Vegetation Management Plan include: (1) ensuring the safety of District Personnel and the public, (2) reduction of fire risks due to tree contacts or electrical sparks igniting vegetation (3) the prevention of customer outages due to tree contacts, and (4) aesthetics. The Plan is designed to meet the goals and objectives of the District, as well as State and Federal requirements, as they relate to maintenance of electric facilities in Public Utility Easements (PUE).

### Service Area

The District is a Public Utility District of the State of California engaged in the distribution, sale and delivery of electric power and energy. The District is a transmission-dependent utility connected to NV Energy's transmission system and is located high on the eastern slope of the Sierra Nevada. The District is not interconnected with any other utility. The District's electric service territory is comprised of approximately 44 square miles in eastern Nevada County and approximately 1.5 square miles in adjacent Placer County. The electric system includes approximately 135 miles of 12.47 kV and 14.4 kV overhead distribution lines, and about one-half mile of 60kV overhead transmission lines. The District has approximately 5,490 poles in its service territory, making the tree trimming budget one of the largest annual operational expenses for the District.

### Plan Description

The District is required by State and Federal laws and regulations to prune or remove vegetation close to energized electrical facilites for public safety and electric system reliability. The District adheres to all applicable vegetation clearance requirements and performs regular vegetation managment in accordance with State and Federal requirements, industry standards, and other procedures that help to prevent outages and fires due to tree contact.

District staff are responsible for preparing work plans for annual vegetation management operations. In addition, staff routinely performs quality control (QC) audits for ongoing work for adherance to clearance requirements and to track progress throughout the year. Circuits are

patrolled and maintained on an ongoing basis, enabling the District to cover all overhead electiric lines on a rotating five-year cycle.

While conducting routine vegetation management operations, the District removes any identified high-risk fuel source vegetation, as required. The District also performs inspections of vegetation concerns for customers or when vegetation management contractors identify at-risk vegetation while performing day-to-day operations. Staff is constently evaluating methods to improve and enhance inspection procedures and vegetation operations. Vegetation management generally consists of removing, cutting, trimming, and clearing away of trees, tree limbs, branches, bushes, vines, foliage, the removal of hazard trees, and inspection of legacy tree attachments in proximity to electrical lines, substations, and other District property within the PUE.

Vegetation removal is performed by mechanical trimming in and around transmission and distribution circuits, from the substations to the end of the each feeder circuit. An emphasis is placed on the removal of tree branches and trees that are located within clearance limits, ground-level clearing around poles, vegetation clearance within the PUE, plus the removal of hazard trees that may be located inside or outside of the PUE. The District does not perform vegetation removal operations in the following areas:

1. **Supply Service Drops**

   Supply service drops, or service wires, are defined as the overhead conductor from the District's distribution pole line to the customers' service entrance or meter base equipment. These overhead supply lines are generally energized at 240 volts. The District does not perform vegetation management operaions along customer supply service drops. Tree triming and maintaining the health of trees on private property is the customer's or property owner's responsibility. The customer or property owner shall maintain a 4 foot clearance at time of trim and a minimum 2 foot clearance from supply service drops to trees and other vegetation at all times. Upon request, and during normal business hours, the District will temporarily de-energize or remove the customer's overhead secondary service line at no charge to the customer, thereby allowing for tree trimming or maintenance work to be performed safely.

2. **Padmounted Equipment**

   In areas served by underground electric facilities, padmounted equipment, including transformers and switchgear, are placed at customer locations or select intervals along main electric lines near streets and roads. Per District code, employees must be able to access this equipment at any time for routine maintenance, troubleshooting, or emergency repairs. This equipment must be visually and phyisically accessable to District crews at all times. A clear working area must be maintained on all sides of padmounted equipment. The door side shall have a 10 foor minimum clear working area. The non-door sides shall have 3 foot minimum clear working area. Clear working area shall mean no fences, shrubs, trees, landscape rocks or other obstructions. The customer or property owner shall maintain these clear working areas for District access.

## Plan Personnel

District crews consisting of licensed Journeymen Linemen perform tree trimming operations on an as-needed basis. The majority of the Plan work is performed by licensed tree contractors specializing in vegetation management operations for electric utiltities. Contracts for Vegetation Management are signed for one year, with up to three, one year extensions.The District has very strict requirements for selecting a tree contractor following the public procurement process. The contractor's field supervisor must be a certified arborist with the International Society of Arboriculture. The Contractor must employ only qualified line clearance tree trimming personnel meeting the requirements of OSHA 29 CFR 1910.269, ANSI Standard Z133.1, and California Code of Regulation Title 8 Article 38 standards and requirements. In addition, the contractor must have a category D-49 Tree Service Contractor license issued by the California Contractors State License Board and be a State of California issued Licensed Timber Operator (LTO).

## Plan Operation Elements

### 1. General

Vegetation management operations are performed by mechanical trimming or removal of trees and other vegetation along distribution and transmission line circuits. These operations are performed in a manner which creates minimum disturbance to the surrounding natural vegetation and landscape not directly involved in the work. Ingress and egress to work areas are via existing roads, driveways, access roads, etc. The work is performed so as to cause the least possible obstruction and inconvenience to public traffic. Public vehicular and pedestrian traffic is allowed to travel through the work area with a minimum of interruption or impedance unless otherwise required for safety concerns. All traffic control and related devices conform to requirements set forth by the Town of Truckee.

### 2. Scheduled Maintaince Cycle

Trees and vegetation are cleared from District facilities on a scheduled maintenance cycle. The District's maintenance cycle goal is 5 years for all facilites. This means that trimming operations are performed on the same portion of a distribution or transmission line typically once every 5 years. The intent of the scheduled maintenance cycle is to perform trimming necessary to obtain clearance that will last for the duration of the cycle. Other benefits include improved access to electric facilities and reduced future maintenance costs. Facilities are worked in a systematic approach. Operations are recorded by staff on the District's Geographical Information Systems (GIS) mapping database to track maintenance cycle goals.

### 3. Public Utility Easement (PUE) Clearing

The District has the right of access to PUEs and other dedicated electric service easements for purposes related to vegetation management including pole clearing, tree trimming, tree removal, and easement clearing. In the event a recorded easement does not exist, easements by prescription, also called prescriptive easements under California Law, give the District the same rights as recorded easements for access to District facilities. Any tree regardless of size, that’s

located in the PUE may be removed due to present or future conflicts with electrical facilities as determined by District staff. PUE maintenance includes pole clearing, cutting and trimming of all trees and shrubs to the extent necessary to keep electric facilities clear of vegetation and to provide access for electric system operations and maintenance. Refer to Exhibits for a graphical depiction of clearance requirements and PUE clearing activities.

## 4. Notification of Customers and/or Property Owners

Customers and/or property owners are notified a minimum of twenty-four hours prior to any scheduled vegetation management operations adjacent to private property. The notificaion includes the type of work to be performed, including the trimming or removal of trees and the disposal of logs and/or brush. This is typically done by placing “door hangers” or using other communication methods to notify customers of impending work.

The work may also require temporary power interuptions or planned outages to be performed safely. This work shall be reviewed and authorized by the Electric Operations Manager or their designee prior to the commencment of work. The customer notification contains information such as contractor name, address, contact name, phone number, approximate time and duration of planned outage, and District contact information.

## 5. Types of Trimming

Natural pruning techniques are performed as recommended by the International Society of Arboriculture and ANSI Standard A300. Operations avoid practices that can cause damage or injury to the tree while achieving the required clearance objectives. Wherever possible, natural pruning cuts are made to direct future growth and sprouting away from electric facilities.

a. **Pruning:** Tree pruning is performed so as to maintain the minimum clearance requirements from electric conductors as shown in the Clearances section of this document. Dead branches overhanging conductors are removed. Portions of dead or decaying trees or portions of trees weakened by decay or disease that may contact conductors from the side or by falling are pruned to eliminate the hazard.

b. **Crown Reduction:** Trees directly under conductors are pruned and shaped. The tree crown is typically reduced and rounded into a symmetrical appearance as much as possible. Conifers are pruned in a natural manner that allows them to retain as much of their natural shape as possible.

c. **Side Prunes:** Where line clearance tree pruning adversely alters the shape of a tree, additional pruning is performed to give such trees a better shape and appearance.

## 6. Tree Removal

Tree removal is performed for all trees that do not meet the clearance requirement from the tree trunk to energized conductors and also for hazard trees. Hazard trees are trees with the potential to fail and threaten the reliability of the District’s overhead electric facilities. Hazard trees may be

located inside or outside of the PUE. The District will notify and obtain approval from property owners when tree removal work is outside of the PUE. Hazard trees are defined as any tree or portion of a tree that is dead, split, rotten, decayed or diseased and which may fall into or onto electric facilities or trees leaning towards lines. Tree removal includes the falling of the entire tree or crane removal. It also consists of the removal and disposal of trunks, limbs and branches. Following best forest management practices, trees are cut off at ground level to leave a stump height of no more then 3 inches to promote natural decay. The District is not responsible for the removal of stumps.

## 7. Pole Clearing

The pole clearing program is an annual requirement to clear vegetation around poles that contain electric apparatus in addition to wires in compliance with California Public Resources Code Section 4292. This Code applies to a majority of District poles. The District will notify and obtain approval from property owners when vegetation removal work is outside of the PUE.

In addition, ground level vegetation clearance and removal is performed to provide the required firebreaks and to minimize new spring growth which are essential steps in reducing impacts to the electrical distribution system due to wildland fires. Refer to Exhibits for a graphical depiction of clearance requirements and PUE clearing activities.

## 8. Tree Attachments (Legacy Attachments)

The District has legacy attachments to trees that consist of: service drop(s); secondary conductor(s); or, security lighting. Although these installations are permitted pursuant to California Code 14CCR § 1257, the District does not engage in this practice for new installations.

In order to ensure the integrity of these attachments, the District performs the following:

- Inspect legacy tree attachments and correct any hazardous condition found such as tree growth around conductors, physical signs of damage, etc;
- Remove tree limbs on trees used as an attachment point(s) consistent with 14CCR § 1257;
- Accurately record attachment point(s) on GIS mapping database for audit purposes.

## 9. Control of Material and Clean Up

Tree branches and other vegetation less than 5 inches in diameter are chipped and removed from the work area. Wood larger than 5 inches in diameter is cut into lengths for safe lifting purposes. Wood larger than 5 inches in diameter is made available to District customers before removal by the contractor. Customers on whose property a tree or trees have been removed or who are adjacent to such work will have the first opportunity to use the wood collected from such trees before removal by the contractor. The work is performed in an environmentally responsible manner with regards to any and all material generated by the work.

The District may store timber logs temporaraly at the work site while efforts are made to arrange for removal and transport to the mill or final storage facility. Upon completion of the work, the area is cleaned to a condition at least equal to that which existed prior to the commencement of the work. During winter storm restorations, these logs may be left for an extended period of time due to heavy snow fall making them inaccesable to load after power restoration efforts are complete. In these situations the District or its contractors will do their best to minimize impacts to customers by stacking material off of the roadyway or other accessible public walkways.

**Clearance Requirements**

The following table reflects the District's current minimum clearances required between conductors and vegetation:

**Clearance of Conductors to Vegetation**

| Type of Conductor | Voltage | Trimmed Clearance | Minimum Clearance |
|---|---|---|---|
| Secondary Supply Conductors | 0 to 750v | **4 ft.** | **2 ft.** |
| Primary Supply Conductors | 750v to 22,500v | **12 ft.** (1, 3) | **4 ft.** (2,3,4&5) |
| Primary Supply Conductors | 22.5kV to 72.5kV | **12 ft.** (1, 3) | **4 ft.** (2,3& 4) |

**Notes:**

1. GO 95 Appendix E, Guidelines to Rule 35, Case 14, High Fire Threats

2. GO 95 Rule 35, Vegetation Management; Table 1, Case 14, High Fire Threats

3. CPUC Fire Threat Map: The CPUC has identified the District's service territory as a Tier 2 High Fire Threat District (HFTD), with the Tahoe Donner Subdivision identified as a Tier 3, HFTD. Therefore, greater clearance requirements apply as compared to being in a non-fire threat area.

4. California PRC Section 4293

5. The minimum clearance may be reduced to 6 inches for tree trunks and major limbs *"of sufficient strength and rigidity to prevent the trunk or limb from encroaching upon the 6 inch minimum clearance under reasonable foreseeable wind and weather conditions"*; GO 95 Rule 35, Tree Trimming, Exception No. 4.

**Regulatory Requirements**
The District performs vegetation managment in accordance with State and Federal requirements. In addition, the District follows industry standards, and other procedures that help to prevent outages and fires due to tree contact. These requirements, standards, and procedures include:

- **California General Order No. 95, Rule 35 – Vegetation Management**
  This rule specifies the minimum radial clearance that must be maintained at all times from energized conductors to vegetation.

- **California General Order No. 95, Appendix E – Guidelines to Rule 35**
  This rule specifies the minimum radial clearance that must be maintained from energized conductors to vegetation at time of trimming.

- **California General Order No. 95, Rule 21.2 D – High Fire Threat District**
  This rule specifies the use of California Public Utility Commission (CPUC) Fire Threat Map to identify fire threat level zones.

- **California General Order No. 95 Rule 35, Vegetation Management; Table 1, Case 13, Radial Clearance requirments**
  Radial clearance of bare line conductors from tree branches or foliage.

- **California General Order No. 95 Rule 35, Vegetation Management; Table 1, Case 14, High Fire Threats**
  Radial clearance of bare line conductors from vegetation in Extreme and Very High Fire Threat Zones.

- **California Public Utility Commission (CPUC) Fire Threat Map**
  This is the CPUC's statewide Fire Threat Map identifing areas of the state at an elevated (Tier 2) or extreme (Tier 3) risk of power line ignitied wildfire.

- **California Public Resources Code Section 4292**
  This law is administered by the California Department of Forestry and Fire Protection (CALFIRE). The law requires the maintenance of a 10 foot radial firebreak around electric utility poles that contain switches, fuses, transformers, or other electric equipment.

- **California Public Resources Code Section 4293**
  This law is administered by CALFIRE. The law specifies the minimum clearance between energized conductors and vegetation. It also requires the removal of dead, deseased, or dying trees, or trees that could fall into electric lines. Such trees may be located inside or outside of the right-of-way or easement areas.

- **California Administrative Code, Title 8, Article 37 - Proximity to Overhead Lines**
  This code specifies minimum clearances between personnel and equipment working in close proximity to overhear electric facilities.

- **California Administrative Code, Title 8, Article 38 - Line Clearance Tree Trimming Operations**
  This code specifies requirements for personnel performing line clearance tree trimming operations.

- **California General Order No. 165 – Inspection Requirements for Electric Distribution and Transmission Facilities**
  This rule specifies the minimum cycle times for inspection of electric distribution and transmission lines.

- **ANSI A300.1 – Tree Care Operations - Pruning**
  This national standard addresses pruning practices for tree trimming operations.

- **ANSI Z133 - Standard for Safety Requirements in Arboricultural Operations**
  This national standard addresses arboriculture safety requirements for pruning, repairing, maintaining and removing trees, and for using equipment in such operations.

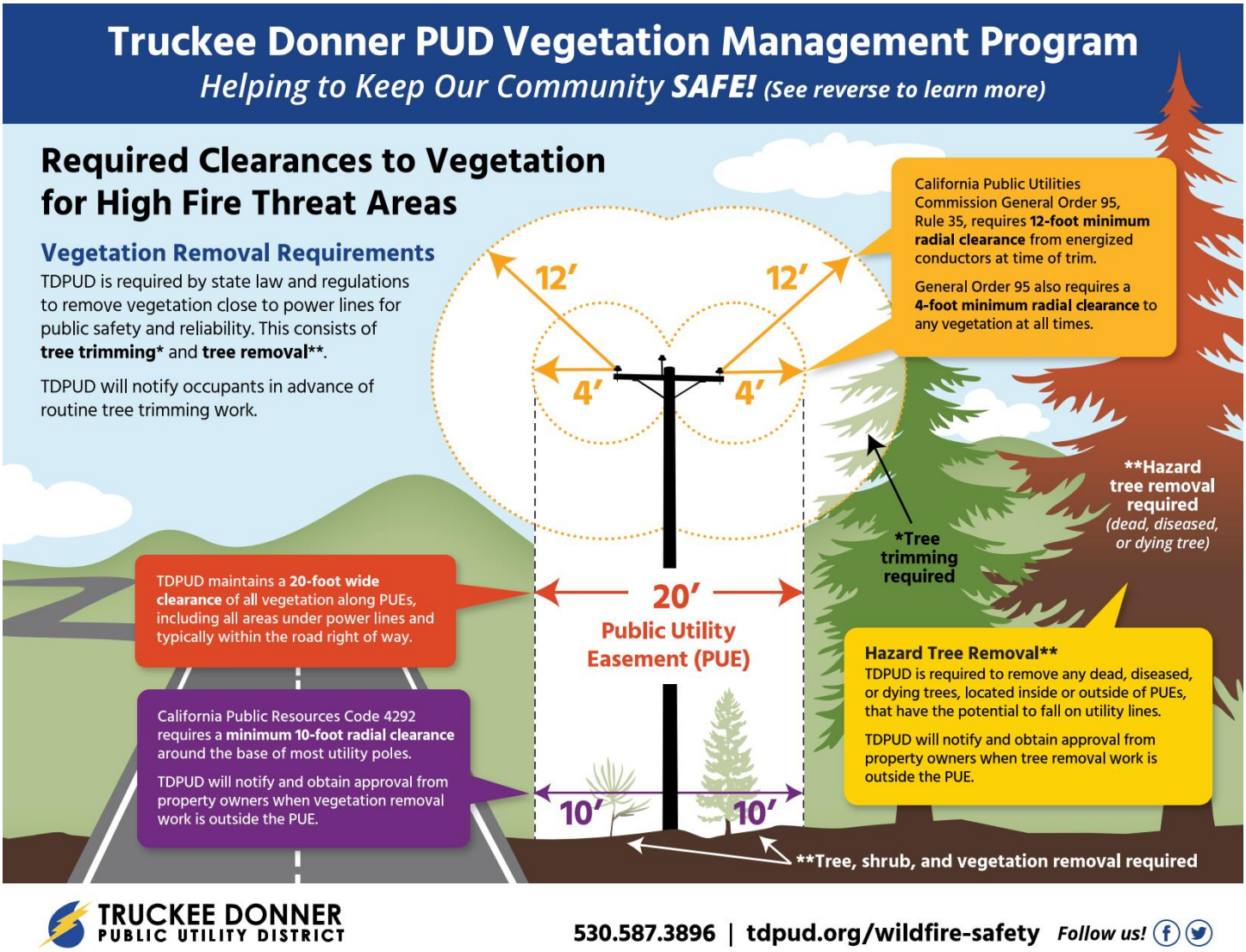
- **OSHA 29 CFR 1910.269 - Electric Power Generation, Transmission, and Distribution**
  This federal standard specifies requirements for worker safety in the electric power industry.

- **ISA Best Management Practices – Vegetation Managment**
  The International Society of Arboriculture (ISA) developed this BMP for the selection and application of methods and techniques for vegetation control for electric rights-of-way.

- **District and other standards as referenced in this document**.

**Exhibits**

**Vegetation Management Handouts**



# ARE YOU PREPARED FOR *wildfire* SEASON?

## Ongoing Vegetation Management Work

Truckee Donner PUD's dedicated staff and contractors are busy conducting vegetation management including, tree trimming and removal of hazard trees around power lines, and maintaining defensible space on properties owned by TDPUD.

Please do your part to protect your home or business and our community. Visit **tdpud.org/wildfire-safety** for information and links to resources.

## Sign up for emergency alerts and notifications

Does TDPUD have your updated customer contact information? Do you want to be notified during **wildfire safety outages (PSOM)** and **emergency situations?** TDPUD customers can customize email and text notifications, as well as push alerts by visiting **tdpud.org** and clicking on the **My Account** button.

TDPUD has partnered with Nixle to provide targeted alerts to TDPUD customers, community members, and the public. Everyone can sign up for TDPUD Nixle emergency alerts by **texting TDPUD** to **333111.**

## Are you prepared for power outages?

TDPUD has taken steps to make our electrical system more safe during wildfire season, but the result is more and longer outages.

Go to **tdpud.org/wildfire-safety** to learn more.


TRUCKEE DONNER PUBLIC UTILITY DISTRICT | 530.587.3896 tdpud.org/wildfire-safety *Follow us!*

# EXHIBIT H

## Pole Replacement Ranking Tool

BACKGROUND

In March 2017 District staff initiated a project to prioritize utility pole replacements based on quantitative data. Prior to that, pole replacements associated with Master Plan line upgrades were given priority and other replacements were prioritized by operation staff intuition with limited logical rationale. Staff recognized the importance of prioritizing projects considering Safety, Reliability and Code Compliance.

There are approximately 5400 poles maintained by the District. Assuming a service life of 30-50 years approximately 100 to 180 poles should be replaced annually for an asset management/preventative maintenance program. Planning is required to achieve this rate of annual pole replacements and insure engineering, vegetation management, and joint pole planning proceed at a similar rate in advance of the replacement.

The Pole Replacement Ranking Tool was developed in response to this need for a project planning and prioritization tool. Originally developed in 2017, the Tool is reviewed and updated periodically. The Tool was most recently updated in February 2020.

THE TOOL

The Pole Replacement Ranking tool uses GIS feature attributes to assign a score to each pole feature based on the equation:

Replacement Score = Age Score + Condition Score + Critical Asset Score

This score then becomes an attribute of the pole feature in GIS. The replacement score attribute is then mapped in GIS to provide a visual report of pole replacement priority. The score factors and associated weights are:

| | |
|---|---|
| Age | 20% |
| Condition | 60% |
| Critical Asset | 20% |

The maximum score for a pole is 100 pts (100%). The weight assigned to each score represents the estimated risk associated with leaving a given pole in service. Age and Condition establish a 'health' score for the pole, while the Critical Asset factor establishes a relative safety and reliability risk of facilities.

AGE Poles under 35 years old are considered low risk and are assigned an age score of zero. As poles age the Age score increases as noted below.

| Age (years) | | SCore |
|---|---|---|
| 60 or older | Oldest | 20 |
| 55-59 | | 16 |
| 50-54 | | 12 |

| | | |
|---|---|---|
| 45-49 | | 8 |
| 40-44 | | 4 |
| 35-39 | | 2 |
| 0-34 | Newest | 0 |

CONDITION There are two elements to the Condition score: GO165 intrusive inspection results and annual patrol inspection results. The Condition: Intrusive Inspection result is a rating from 1 (best) to 5 (worst) recorded in the GO165 inspection Poles Requiring Replacement reports.

Intrusive Inspection

| Rating | | | Score |
|---|---|---|---|
| 1 | Best | Pole OK | 0 |
| 2 | | Decay/Mechanical Damage | 8 |
| 3 | | Recommend Change Out | 16 |
| 4 | | Reject - Reinforceable | 24 |
| 5 | Worst | Priority Pole | 32 |

The Condition: Patrol Inspection result is a rating from 1 (best) to 5 (worst) based on the annual visual inspection of 100% of the poles in the District.

Patrol Inspection

| Rating | | | Score |
|---|---|---|---|
| 1 | Best | recommend future action | 5 |
| 2 | | Future action 3 categories | 10 |
| 3 | | Intrusive tag + 2 categories | 15 |
| 4 | | Urgent Action | 20 |
| 5 | Worst | Urgent Action +2 categories | 28 |

CRITICAL ASSET The Critical Asset factor ranks facilities based on the impact an event on a given pole could have on Safety, Reliability and Compliance.

| Attribute ID | Asset | Score |
|---|---|---|
| 1 | Distribution | 20 |
| 2 | Secondary | 15 |
| 4 | Guy | 5 |
| 3 | Street Light | 0 |
| 5 | Transmission | 0 |
| 6 | Broadband | 0 |
| 7 | Tree | 0 |

While an event on a Transmission pole could have a significant impact on the distribution system, these facilities are not owned by the DISTRICT and are not included in the pole replacement tool. Currently the tool assigns the Tree asset a zero score as trees typically have secondary/service attachments and, if the tree fails, then the impact on the distribution system is limited. With the increased emphasis on wildfire mitigation and the District's stance on tree attachments, this weighting may be reconsidered.

The final Replacement Score is mapped in GIS by range.

| Score Range | Color |
|---|---|
| 61-100 | Red |

| | |
|---|---|
| 51-60 | Orange |
| 41-50 | Yellow |
| 31-40 | Light Green |
| <=30 | Dark Green |

2020 REVISION

The 2017 version of the tool used the equation:

*Replacement Score = Age Score + Condition Score + Critical Asset Score + Reliability Score*

The Reliability score was to be based on outage management system (OMS) data and reflect the frequency of events on a given device. The Reliability score was not included in the 2017 version of the tool while staff evaluated the parameters. Since then, staff determined the OMS data does not correlate to pole health or the safety/reliability risk of leaving a pole in service. As a result, this factor was not included in the 2020 revision. The OMS data is important to safety and reliability and is considered in planning and prioritizing other engineering and operations activities.

In the 2020 version of the Tool, staff identified Condition as the most important indicator of health and reallocated scoring accordingly. Less emphasis was given to Age, more emphasis given to Condition and Critical Asset emphasis remained unchanged. Staff also determined annual Patrol Inspection results were available. This data is important and up-to-date information related to pole health and has been added the Condition factor scoring.

FUTURE TOOL IMPROVEMENTS

Coordinate the patrol inspection data collection tool with the pole ranking tool to more accurately identify, rank/prioritize and record pole health.

TRUCKEE DONNER Public Utility District

11570 Donner Pass Rd.
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Phone: 530-587-3896 Fax: 530-587-1189

# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Current Limiting Fuses & Discontinuance of Load-Break Cutouts**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

One such area that will be impacted is the use of load-break cutouts. Effective immediately, all new installations requiring cutouts will utilize a non-load-break type cutout; these cutouts can be field retro-fitted at a later date with non-expulsionary current-limiting fuses, which can be operated with a loadbuster tool.

Adjustments to stock for current-limiting fuses and non-load-break cutouts will be made effective immediately.

Engineering Staff will update District Construction Standards in 2019 to reflect this change.

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Disabling of Automatic Reclosers (one-shot operation)**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

One such area that will be impacted is the disabling of automatic reclosing operations on the system. Moving forward on an annual basis, District staff will disable automatic station & system reclosers, (one shot operation), for the duration of the summer months. Summer months are defined as early June through early November. During this time period all automatic reclosing will not be re-enabled.

Operational needs may change due to extended/early winter conditions within the service district. During these types of weather events the Electric Operations Manager or his designee may suspend the summer one shot operation practice and return the automatic system reclosures to normal operation.

TRUCKEE DONNER Public Utility District

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Hotline Work during Extreme Weather or Red Flag Warnings**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

One such area that will be impacted is hotline work on energized overhead primary conductor during extreme weather events or Red Flag Warnings (RFW).

In the case of extreme weather as defined within the WMP, hotline work on the District's overhead primary system will be minimized and only performed after consultation with the Electric Operations Manager or designee. Work may be performed as necessary to protect facilities, life or property.

During RFWs, all hotline work on overhead energized primary conductor will be delayed until the RFW has been lifted by the issuing agency. Work may be performed as necessary to protect facilities, life or property.

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Mandatory Reporting Requirements - Fire Ignition**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

As part of the District's WMP, it is required to collect data on fire ignition. Effective immediately, any ignition that is caused or believed to be caused by District equipment will be immediately reported to the Electric Operations Manager or designee. In the event of an emergency, staff should still contact the appropriate emergency service(s) via the 911-emergency system and notify the Electric Operations Manager or designee as soon as practicable.

For the purpose of defining the mandatory reporting requirements, a fire ignition is defined as follows:

- A District facility (i.e. piece of equipment, wire, etc.) was associated with the fire;
- The fire was self-propagating and of a material other than electrical;
- The fire traveled greater than one linear meter from the point of ignition; and,
- The District has knowledge the fire occurred.

Any questions regarding mandatory reporting requirements should be directed to the Electric Operations Manager.

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Mandatory Reporting Requirements – Wire Down**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

Although this is currently done in practice, this memo serves to formalize the required reporting to the Electric Operations Manager or designee of wire-down events as soon as practicable once life and property have been deemed safe.

As part of the District's WMP, it is required to collect data on wire down events. For the purpose of reporting, a wire down event is defined as: any instance where primary overhead distribution conductor falls to the ground or on to a foreign object. A foreign object includes, but is not limited to: another phase; downguy; crossarm; phone; or cable.

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Tree Attachments**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

Legacy assets (existing installations) within the District that have been attached to trees include: secondary conductors; service drops; and, night/security lights. Although these installations were permitted pursuant to 14 CCR § 1257, the District does not engage in this practice for new installations.

Downed lines due to fallen tree/s may not be reattached to existing trees and will require the installation of a secondary utility pole. Repairs to/restoration of existing installations will be considered temporary and reviewed by the Electric Operations Manager.

Going forward, the District will not attach to trees for any reason for new service(s), secondary conductors or night/security lights. All new service installations will be fed from an underground source and comply with WMP Article L – Proposed Service Requirements.

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# Memorandum

To: All Operations and Engineering Staff

CC: Sanna Schlosser, Electric Engineering Manager
Megan Campe, GIS Coordinator;

From: Stephen Moore, Electric Operations Manager
Joe Horvath, Electric Utility Director

Date: July 23, 2019

Subject: **Re-Energization after preemptive power shutdown during Fire Season**

---

The District presented the Wildfire Mitigation Plan (WMP) to the Board on July 17, 2019 and was adopted. The WMP incorporates operational and material changes that will impact District operations going forward as work procedures and material specifications are reviewed or modified as needed to align with the WMP.

On occasion, outside emergency management/emergency response agencies may request the District to preemptively de-energize a portion of its system, the District may exercise its authority to de-energize its system due to extreme weather or other unique circumstances. The Districts transmission provider, NV Energy, has implemented Public Safety Outage Management (PSOM) and may proactively shut off all or a portion of the transmission system which would shut off power to the District's substations. In these cases, prior to re-energization, the following procedure will apply:

- All portions of overhead line that have been de-energized will be patrolled and be visually inspected;
- Any portion of overhead line that cannot be patrolled will not be re-energized and must be isolated or remain de-energized; and
- Suspect equipment will be isolated or taken off-line until such time the equipment can be tested/validated