WILDFIRE MITIGATION PLAN

ATTACHMENT 1

VERSION 1.1

June 26, 2019
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I. OVERVIEW

A. POLICY STATEMENT

The Mission of Truckee Donner Public Utility District (District) is to provide reliable, high quality water and electrical power services while meeting customer demand, and to manage District resources in a safe, open, responsible, 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.

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 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.

B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan (WMP or Plan) describes the range of activities the District takes to mitigate the threat of District equipment ignited wildfires. Included in within the Plan is an explanation of various programs, practices, and procedures the District utilizes to comply with SB 901.

This Plan is subject to direct approval by the District’s Board of Directors and is implemented by the General Manager. This Plan complies with the requirements of Public Utilities Code Section 8387 for publicly owned electric utilities to prepare a wildfire mitigation Plan by January 1, 2020, and annually review it thereafter.

C. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan includes the following elements:

- Objectives of the Plan;
- Roles and responsibilities for executing the Plan;
II. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

A. MINIMIZING SOURCES OF IGNITION

The primary goal of this Plan is to minimize the probability the District’s distribution system may be an original or contributing source of ignition. 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 explore new opportunities for improving the efficacy of the Plan.

The District utilizes the California Public Utility Commission (CPUC) state-wide Fire Threat Map (Map) adopted January 19, 2018 (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).

B. RESILIENCY OF THE ELECTRIC GRID

The secondary goal of this Plan is to ensure and improve where practicable, system resiliency. System resiliency is defined 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 may reduce the likelihood of a disruption in service or improve the timeline for restoration of service.

To accomplish this, the District utilizes heavy-loading construction standards that are designed to withstand sustained heavy winds; insulated wire (where practicable); FR3 insulating fluid; current limiting fuses; and vegetation management, among other operational practices.

C. MINIMIZING UNNECESSARY OR INEFFECTIVE ACTIONS

The final goal for this Plan is to measure the effectiveness of specific mitigation strategies as they apply to the District. Where a particular action, program, or protocol is determined to be unnecessary or ineffective, the District will evaluate whether modification or replacement is
suitable. This approach will also help determine if more cost-effective measures would produce the same or better results.

III. ROLES AND RESPONSIBILITIES

A. DISTRICT ROLES AND RESPONSIBILITIES

Truckee Donner Public Utility District

The District utilizes a Board/General Manager reporting hierarchy.

Board members are elected at large by District customers to rotating 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 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 Assistant General Manager (AGM) / Public Information Officer (PIO), serves as the District’s public liaison to outside agencies as well as responding to requests for information, including proactively promulgating public awareness outreach or emergency information. The AGM also assumes the operational authority of General Manager in the absence of the General Manager.
The Electric Utility Director has overall functional management of the Electric Utility and provides day-to-day oversight of the Electric Utility. The Director utilizes the Electric Operations Manager and Electric Engineering Manager for division oversight.

The Electric Operations Manager oversees the daily electric utility operations, including; construction; maintenance; energy control; fleet; 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.

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.

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; 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. 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 information website dashboard at https://www.tdpud.org/i-want-to/outagecenter.

D. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM

As a local governmental agency, the District has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System (“SEMS”) Regulations, 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. Pursuant to this structure, the District regularly coordinates and communicates with the relevant safety agencies as well as other relevant local and State agencies.

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 made headed by the Chairman of the Board of Supervisors (or designee). The Operational Area includes local and regional

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1 As defined in Cal. Gov. Code § 8680.2.
2 19 CCR § 2407.
3 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.
organizations that bring relevant expertise to the wildfire prevention and recovery planning process. These participants include:

- Director of Emergency Services;
- 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); and
- Such others as the Council requests be in attendance.

Additionally, a small portion of the District’s service territory resides in Nevada County, overseen by the Nevada County Operational Area Emergency Services Council (NC-ESC). The NC-ESC 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 NC-ESC, 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, 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.

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

A. PARTICULAR RISKS AND RISK DRIVERS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL RISK FACTORS
Within the District’s service territory and the surrounding areas, the primary risk drivers for wildfire are the following:

- Extended drought;
- Vegetation type;
- High winds;
- Mountainous terrain;
- Tree mortality;
- Lightning;
- Traffic; and
- Lack of early fall precipitation.

### B. ENTERPRISEWIDE SAFETY RISKS

The District will use a methodical approach to address/mitigate enterprise safety risks. This approach will utilize Risk Factor Analysis (RFA). RFA is a process to identify and manage potential risks that could undermine core business functions, threaten business continuity or impact recover. RFA will be used to qualitatively analyze safety risks, which include:

- Unavailability of NV Energy’s transmission (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;
- Impacted roadways limiting movement of personnel and equipment; and
- Impacted roadways limiting access to District facilities (Corporation Yard, Headquarters, various substations or pump sites).

### C. CHANGES TO CPUC FIRE THREAT MAP

The District does not recommend any changes to the CPUC state-wide Fire Threat Map, adopted January 19, 2018, at this time. Future changes in District knowledge or recommendations going forward will be communicated as required by statute.

### V. 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, which designates the HFTD. In the map development process, the District

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4 Adopted by CPUC Decision 17-12-024.
served as a territory lead, and worked with District 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 High Fire Threat District into its construction, inspection, operation, maintenance, repair, and vegetation management practices.

B. WEATHER MONITORING

The District 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; and,
- The District will evaluate the cost and benefit of new technologies where practicable.

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:** If the National Weather Service declares a Red Flag Warning (RFW) for any portion of District’s service territory, the District will delay all routine work on energized primary lines (12.47kV & 14.4kV). The District may perform necessary work to preserve facilities or property.

C. 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 a "heavy-loading" district as defined by the CPUC (Exhibit B). 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.

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

D. VEGETATION MANAGEMENT

The District meets or exceeds minimum industry standard(s) for vegetation management practices. 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.

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

(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.)

E. 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 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. The District utilizes GO 95 and GO 165 as its guiding document, as part of a robust asset management/maintenance program.

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.
F. FR3 INSULATING OIL

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

G. NON-EXPULSIONARY CURRENT LIMITING FUSES

The District has undertaken a pilot project to evaluate the suitability of non-expulsionary 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, 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.

District staff will continue to evaluate the efficacy of non-expulsionary fuses and based upon investigatory outcome, may recommend a future capital project for further deployment onto the system.

H. 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 in the content of the WMP; trained in proper use and storage of fire extinguishers; required during 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 identify the closest fire extinguisher.

Any ignition will be reported to management for follow-up.

I. RECLOSER OPERATIONAL PRACTICE

Annually, the District will disable 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 summer months. Summer months are defined as early June through early November.

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.

J. DEENERGIZATION

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). Major considerations included: the District's 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 rivers. 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 minimized.

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 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 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.

K. 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 were permitted pursuant to 14 CCR §1257, the District does not engage in this practice for new installations.

District staff is in the process of developing a recommendation and operational practices to address these legacy attachments. The inclusive recommendation will consider the following:

- Pursuant to 14 CCR §1257, the District will inspect these installations on periodic basis;
- Limbing of a tree used as an attachment point(s) will be consistent with 14 CCR §1257;
- The District may audit tree attachments on a periodic basis; and,
- All new service installations will be fed from an underground source and comply with Article L – Proposed Service Requirements.

L. PROPOSED SERVICE REQUIREMENTS

Since circa 1995, District code has required most new or reconstructed developments to take service from the District via an underground system; however, exceptions do exist in current District Code. 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 L – Proposed Service Requirements.

A. COVERED PRIMARY JUMPER WIRE
The District will be implementing the use of (covered) primary jumper wire to minimize the unintentional contact (with) wildlife. This practice will also help mitigate (the) possibility of a flashover that may result in ignition of electrical facilities and the surrounding areas.

VI. COMMUNITY OUTREACH AND PUBLIC AWARENESS

As a key publicly-owned 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.

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 publically 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, attending dozens of community events each year including: Truckee Day; Truckee Thursday’s; Tahoe Truckee Earth Day; Truckee Home Show; Truckee Farmers Market; Truckee Block Party; 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.

The District also has robust marketing and communication efforts leveraging the website (www.tdpud.org), social media (Facebook/Twitter/YouTube), 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 a new 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 the recent 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 recently 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.

For preparation of the SB 901 Wildfire Mitigation Plan, the District staff worked extensively with Truckee Fire Protection District, CAL FIRE, Town of Truckee, Nevada & Placer Counties, and many other local agencies and stakeholders. The District conducted a publicly 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 Board in July 17, 2019.

VII. RESTORATION OF SERVICE

Although the District does not have a PSPS operational practice, if an outside emergency management/emergency response agency request a power shutdown, or if the District elects to de-energize segments of its system due to extreme weather, 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.

VIII. EVALUATING THE PLAN

A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

The District will track two metrics to measure the performance of this Plan: (1) number of fire ignitions; and (2) wire down events within the service territory.

METRIC 1: FIRE IGINITIONS

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.

In future Wildfire Mitigation Plans, the District will provide the number of fires that occurred that were less than 10 acres in size. Any fires greater than 10 acres will be individually described.

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.

B. IMPACT OF METRICS ON PLAN

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.

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. Additionally, a qualified independent evaluator will present a report on this Plan to the District’s Board.

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.

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 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. 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).

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.

IX. 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 will utilize a process consistent with District Purchasing Code. Additional considerations will include: relevant industry experience; similar work for other municipal utilities or special districts; recognized expertise in line construction and maintenance; responsiveness; and, familiarity with applicable California statues (i.e. GO 95, GO 165, PRC 4292 & 4293, etc.).

The District will submit its draft report to an independent auditor and the auditor’s findings will be presented to the Board at a regular meeting, prior to December 31, 2019.

X. APPENDIX
XI. REFERENCES

14CCR § 1257
July 9, 2019 Memorandum, RE: Current Limiting Fuses
July 9, 2019 Memorandum, RE: Disabling of Automatic Circuit Reclosers (ACRs)
July 9, 2019 Memorandum, RE: Hotline Work during Extreme Weather or RFW Events
July 9, 2019 Memorandum, RE: Mandatory Reporting Requirements – Fire Ignition
July 9, 2019 Memorandum, RE: Mandatory Reporting Requirements – Wire Down
July 9, 2019 Memorandum, RE: Re-Energization of Lines
July 9, 2019 Memorandum, RE: Tree Attachments
Public Resources Code section 4292
Public Resources Code section 4293
Public Utilities Code Section 8387
State of California, General Order 95
State of California, General Order 165
Vegetation Management Plan (VMP)
The data portrayed in the CPUC Fire-Threat Map were developed under Rulemaking 15-05-006, following procedures in Decision (D.) 17-01-009, revised by D.17-06-024, which adopted a work plan for the development of a utility High Fire-Threat District (HFTD) for application of enhanced fire safety regulations. The aforementioned decisions ordered that the HFTD be comprised of two individual map products. One of those map products is this CPUC Fire-Threat Map. The CPUC Fire-Threat Map depicts areas where enhanced fire safety regulations found in Decision 17-12-024 will apply. The final CPUC Fire-Threat Map was submitted to the Commission via a Tier 1 Advice Letter that was adopted by the Commission’s Safety and Enforcement Division (SED) with a disposition letter on January 19, 2018. All data and information portrayed on the CPUC Fire-Threat Map are for the expressed use called out in D.17-12-024, and any other use of this map are not the responsibility or endorsed by the Commission or its supporting Independent Review Team.

For more information about the data and map depicted, or other matters related to Utility wildfire safety, please contact Terrie Prosper at Terrie.Prosp@cpuc.ca.gov.

This map sourced from ESRI (World Imagery).
Territorial Division of the State Of California With Regard To Loading Districts

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.


(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
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.

<table>
<thead>
<tr>
<th>Voltage of Lines</th>
<th>Case 13 of Table 1</th>
<th>Case 14 of Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radial clearances for any conductor of a line</td>
<td>4 feet</td>
<td>12 feet</td>
</tr>
<tr>
<td>operating at 2,400 or more volts, but less than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72,000 volt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radial clearances for any conductor of a line</td>
<td>6 feet</td>
<td>20 feet</td>
</tr>
<tr>
<td>operating at 72,000 or more volts, but less than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110,000 volts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radial clearances for any conductor of a line</td>
<td>10 feet</td>
<td>30 feet</td>
</tr>
<tr>
<td>operating at 110,000 or more volts but less than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300,000 volts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radial clearance for any conductor of a line operating at 300,000 or more volts</td>
<td>15 feet</td>
<td>30 feet</td>
</tr>
</tbody>
</table>
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)

<table>
<thead>
<tr>
<th></th>
<th>Patrol Urban</th>
<th>Patrol Rural</th>
<th>Detailed Urban</th>
<th>Detailed Rural</th>
<th>Intrusive Urban</th>
<th>Intrusive Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transformers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Underground</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Padmounted</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Switching/Protective Devices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Underground</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Padmounted</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Regulators/Capacitors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Underground</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Padmounted</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Overhead Conductor and Cables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Streetlighting</td>
<td>1</td>
<td>2</td>
<td>x</td>
<td>x</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Wood Poles under 15 years</td>
<td>1</td>
<td>2</td>
<td>x</td>
<td>x</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Wood Poles over 15 years which have not been subject to intrusive inspection</td>
<td>1</td>
<td>2</td>
<td>x</td>
<td>x</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Wood poles which passed intrusive inspection</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

(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.