

LASSEN MUNICIPAL UTILITY DISTRICT  
WILDFIRE MITIGATION PLAN  
INDEPENDENT EVALUATION

Prepared and Submitted by:

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OUT OF THE WOODS

FORESTRY AND NATURAL RESOURCE  
CONSULTING

November 28, 2019

Lassen Municipal Utility District (LMUD) is a locally governed Utility and is itself governed as a California Municipal Utility pursuant to the Municipal Utility Act of the State of California. LMUD serves the City of Susanville, and many communities throughout Lassen County. Service territory is 1900 square miles and approximately 10,600 metered services. LMUD is governed by a 5-member Board of Directors who are directly elected to represent Districts within the Utility Service Territory.

On September 21, 2018, Governor Gavin Newsome signed Senate Bill 901. The bill is a comprehensive “Wildfire Hazard Reduction” package that repealed, added, amended and/or replaced numerous Sections of the Civil Code, the Government Code, the Health and Safety Code, the Public Resources Code and the Public Utilities Code.

Specific to this Evaluation are Paragraphs 11 and 12 (Appendix A), which require electrical corporations to “annually prepare and submit a wildfire mitigation plan to the Public Utilities Commission (PUC) for review”, as well as requiring “an independent evaluator to review and assess the electrical corporation’s compliance with its plan”. Additionally, Paragraph 12 requires that the wildfire mitigation plan be discussed in a public meeting, with appropriate notification of the public. This plan was discussed during the LMUD Board of Director’s meeting on November 26, 2019.

As a direct result of Senate Bill 901, Public Utilities Code, Division 4.1, Chapter 6, Section 8387 (Appendix B) provides the specific requirements for LMUD’s Wildfire Mitigation Plan. This section of the Public Utilities Code was the template for LMUD’s plan and for this evaluation.

LMUD’s Wildfire Mitigation Plan (Plan) carefully follows Section 8387 and thus provides a straightforward and comprehensive description of how it intends to address all of the requirements therein, beginning with the Policy Statement:

*“Lassen Municipal Utility District’s (LMUD’s) overarching goal is to provide safe, reliable, and economic electric service to its local community. System safety is paramount to LMUD’s operations. With recent wildfire events in Northern California and around the state, measures have been put in place that require Utilities to develop and maintain Wildfire Mitigation Plans. These plans are intended to prepare procedures to minimize the chance of electrically caused wildfires as well as to establish communications with the Public, Emergency Responders, operators of critical systems such as hospitals, emergency communications centers. In order to meet these goals, LMUD constructs, maintains, and operates its electrical lines and equipment in a manner that minimizes the risk of catastrophic wildfire posed by its electrical lines and equipment. This includes extensive tree trimming programs to maintain clearance between trees and bare electrical conductors, pole brushing (clearing around every pole with electrical installed devices such as switches, fuses, reclosers). Many other measures involving equipment selection and settings are also part of our on-going efforts.”*

A discussion and evaluation of LMUD’s “Safety Culture” as it relates to wildfire indicates a clear intention to provide safe and professional services to its customers and to make every effort to protect them from potential wildfire threats. The following statement was submitted to this evaluator by Assistant General Manager, Pat Holley:

*“Lassen Municipal Utility District works diligently to maintain and promote a culture of safety first as do many other utilities. Personnel in the Electric Utility industry are instilled with a very strong adherence to safe work practices and to protection of themselves, their coworkers, and the public. This safety-first work*

*ethic is very important when working on any aspect of our utility distribution, transmission, and associated electric systems. This safety-first approach carries over to our work with wildfire prevention. Our employees are aware of the dangers posed by malfunctioning, or damaged equipment throughout our system. The employees that are in the field and working with these systems are constantly evaluating and examining, poles, structures, transformers, switches, insulators, conductors, lightning arrestors, breakers, reclosers and every other type of equipment. This in addition to vegetation management guidelines that LMUD has had in place for many years. Brushing to bare earth within 20-foot diameter around every pole or structure with equipment on it capable of producing any source of ignition.*

*Additionally, a professional tree trimming service is constantly evaluating and moving through the distribution and transmission system to maintain proper clearances. These tree trimmers who are under the supervision of LMUD Operations personnel maintain clearances from conductors and evaluate and notify LMUD of any additional hazards or issues that should be addressed. Safety-first is also paramount to the individuals who perform this work and again is part of their training regimen prior to allowing them to work in proximity to high voltage, secondary voltage or any electric infrastructure.*

*The Management, Foremen, and Utility Linemen on all crews exhibit a safety-first approach and we are all committed to these requirements. Discussions were held with The Electric Operations Manager, and the Assistant General Manager to confirm that this is a commitment to electrical safety at all levels including those conditions which could lead to potential ignition or wildfire events.”*

Conclusion:

LMUD has written a thorough plan that will serve as an excellent template to meet the requirements of Senate Bill 901 and to serve and protect its customers and communities from potential wildfire starts and/or threats.

This initial evaluation will serve as a baseline for ongoing annual reviews which will serve to measure the effectiveness of this plan and its implementation strategies.

This Evaluation has been conducted by Mark A. Shaffer, California Registered Professional Forester # 2485. Additional experience and qualifications of the evaluator can be found in Appendix C.

  
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Date: November 28, 2019

Mark A. Shaffer

Independent Evaluator

LMUD WILDFIRE MITIGATION PLAN  
INDEPENDENT EVALUATION  
APPENDIX A

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**Senate Bill No. 901**  
**CHAPTER 626**

An act to add Section 815.11 to the Civil Code, to add Section 65040.21 to the Government Code, to add Section 38535 to the Health and Safety Code, to amend Sections 4213.05, 4290, 4527, 4584, 4589, 4593.2, 4597, 4597.1, 4597.2, 4597.6, and 4799.05 of, to add Sections 4123.5, 4124.7, 4290.1, 4584.1, and 4584.2 to, to add Article 10 (commencing with Section 4205) to Chapter 1 of Part 2 of Division 4 of, to add and repeal Section 4556 of, and to repeal Section 4597.20 of, the Public Resources Code, and to amend Sections 399.20.3, 854, 959, 1731, 2107, 8386, and 8387 of, to add Sections 451.1, 451.2, 748.1, 764, 854.2, 8386.1, 8386.2, 8386.5, and 8388 to, to add Article 5.8 (commencing with Section 850) to Chapter 4 of Part 1 of Division 1 of, and to repeal and add Section 706 of, the Public Utilities Code, relating to wildfires.

[ Approved by Governor September 21, 2018. Filed with Secretary of  
State September 21, 2018. ]

LEGISLATIVE COUNSEL'S DIGEST

SB 901, Dodd. Wildfires.

(11) Existing law authorizes the PUC, after a hearing, to require every public utility to construct, maintain, and operate its line, plant, system, equipment, apparatus, tracks, and premises in a manner so as to promote and safeguard the health and safety of its employees, passengers, customers, and the public. The act requires electrical corporations to annually prepare and submit a wildfire mitigation plan to the PUC for review.

This bill would require each plan to include additional elements, and would require an independent evaluator to review and assess the electrical corporation's compliance with its plan. The bill would authorize the electrical corporation to recover in rates the costs of the independent evaluator. The bill would require the PUC to approve the plan and to consider the independent evaluator's findings, as specified. The bill would require the PUC to assess penalties on an electrical corporation that fails to substantially comply with its plan.

This bill would require an independent 3rd-party evaluator to conduct a safety culture assessment of each electrical corporation, the costs of which would not be recoverable in rates by the electrical corporation.

This bill would require that an electrical corporation that has a contract for private fire safety and prevention, mitigation, or maintenance services, only use those services for the direct defense of utility infrastructure. The bill would require an electrical corporation to make maximum effort to reduce or eliminate the use of contract private fire safety and prevention, mitigation, and maintenance personnel in favor of employing highly skilled and apprenticed

personnel to perform fire safety and prevention, mitigation, or maintenance services in direct defense of utility infrastructure in collaboration with public agency fire departments having jurisdiction.

(12) Under existing law, local publicly owned electric utilities and electrical cooperatives are under the direction of their governing boards. Existing law requires each local publicly owned electric utility and electrical cooperative to construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment. Existing law requires the governing board of a local publicly owned electric utility or electrical cooperative to determine whether any portion of the geographical area where the utility's overhead electrical lines and equipment are located has a significant risk of catastrophic wildfire resulting from those electrical lines and equipment and, if so, requires the utility, at an interval determined by its board, to present to its board for approval those wildfire mitigation measures the utility intends to undertake to minimize the risk of its overhead electrical lines and equipment causing a catastrophic wildfire. Existing law authorizes a governing board of a local publicly owned electric utility or electrical cooperative to determine that a fire prevention plan it prepared and submitted to, and which was approved by, a federal agency as a license condition meets these requirements for those areas covered by the plan.

This bill would require those utilities to prepare wildfire mitigation measures if the utilities' overhead electrical lines and equipment are located in an area that has a significant risk of wildfire resulting from those electrical lines and equipment. The bill would require the wildfire mitigation measures to incorporate specified information and procedures. The bill would require the local publicly owned electric utility or electrical cooperative, before January 1, 2020, and annually thereafter, to prepare a wildfire mitigation plan, except where its governing board determined that its federally approved fire prevention plan met the otherwise applicable requirements. The bill would require specified information and elements to be included in the plan. The bill would require the local publicly owned electric utility or electrical cooperative to present each plan in an appropriately noticed public meeting, to accept comments on the plan from the public, other local and state agencies, and interested parties, and to verify that the plan complies with all applicable rules, regulations, and standards, as appropriate. The bill would require the local publicly owned electric utility or electrical cooperative to contract with a qualified independent evaluator to review and assess the comprehensiveness of its plan.

**LMUD WILDFIRE MITIGATION PLAN**  
**INDEPENDENT EVALUATION**  
**APPENDIX B**

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**PUBLIC UTILITIES CODE - PUC**

**DIVISION 4.1. PROVISIONS APPLICABLE TO PRIVATELY OWNED AND PUBLICLY OWNED PUBLIC UTILITIES [8301 - 8390]**

*( Heading of Division 4.1 amended by Stats. 1988, Ch. 1560, Sec. 2. )*

**CHAPTER 6. Wildfire Mitigation [8385 - 8389]**

*( Chapter 6 added by Stats. 2016, Ch. 598, Sec. 1. )*

**8387.**

(a) Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.

(b) (1) The local publicly owned electric utility or electrical cooperative shall, before January 1, 2020, prepare a wildfire mitigation plan. After January 1, 2020, a local publicly owned electric utility or electrical cooperative shall prepare a wildfire mitigation plan annually and shall submit the plan to the California Wildfire Safety Advisory Board on or before July 1 of that calendar year. Each local publicly owned electric utility and electrical cooperative shall update its plan annually and submit the update to the California Wildfire Safety Advisory Board by July 1 of each year. At least once every three years, the submission shall be a comprehensive revision of the plan.

(2) The wildfire mitigation plan shall consider as necessary, at minimum, all of the following:

(A) An accounting of the responsibilities of persons responsible for executing the plan.

(B) The objectives of the wildfire mitigation plan.

(C) 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.

(D) A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.

(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.

(F) Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.

(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.

(H) Plans for vegetation management.

- (I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.
- (J) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:
- (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities.
  - (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.
- (K) Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.
- (L) A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.
- (M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.
- (N) A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:
- (i) Monitor and audit the implementation of the wildfire mitigation plan.
  - (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.
  - (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.
- (3) The local publicly owned electric utility or electrical cooperative shall, on or before January 1, 2020, and not less than annually thereafter, present its wildfire mitigation plan in an appropriately noticed public meeting. The local publicly owned electric utility or electrical cooperative shall accept comments on its wildfire mitigation plan from the public, other local and state agencies, and interested parties, and shall verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards, as appropriate.
- (c) The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the internet website of the local publicly owned electric utility or electrical cooperative, and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.

*(Amended by Stats. 2019, Ch. 79, Sec. 20. (AB 1054) Effective July 12, 2019.)*

# LMUD WILDFIRE MITIGATION PLAN

## INDEPENDENT EVALUATION

### APPENDIX C

**MARK A. SHAFFER**

#### **Summary of Qualifications**

- **Over 29 years of experience** in the field of Forestry, 24 as a California Registered Professional Forester (RPF #2485).
- **Over 20 years of experience** as a California Licensed Timber Operator (LTO # A 7052).
- **Over 29 years of experience** supervising Logging Operations and administering Logging Contracts on private and public lands.
- Extensive **practical application of the California Forest Practice Rules.**

#### **PROFESSIONAL EXPERIENCE**

##### **June 1, 2018 to August 31, 2019 • Sole Proprietorship: Out of the Woods - Fuel Supply Consultant for HL Power Company / Greenleaf Power**

**Duties include:** Fuel Procurement, Mapping of HHZ areas for Power Purchase Agreement requirements, oversight and administration of contracted logging and/or forest thinning operations for HL Power Company in Wendel, California.

##### **October 10, 2011 to May 31, 2018 • Fuel Supply Manager for HL Power Company / Greenleaf Power**

**Duties include:** Fuel Procurement, Contracting, Mapping of HHZ areas for Power Purchase Agreement requirements, oversight and administration of contracted logging and/or forest thinning operations for HL Power Company in Wendel, California.

##### **January, 2001 to January, 2013 • President / Co-Owner of Evergreen Resource Management.**

**Duties include:** Consulting Forester for the Lassen County Fire Safe Council from June, 2007 to September, 2010 (assisted in administering landscape-scale forest fuel reduction operations near Susanville, CA: included lay-out of harvest area boundaries, set-up of thinning operations and ensuring LTO compliance with the CA Forest Practice Act); Prepared, Submitted and Administered numerous CA Timber Harvest Plans; Contracted with Landowners and Licensed Timber Operators for various Forest Management projects; Oversight of +/- 50 employees / sub-contractors in removing bark-beetle killed trees in and around the Lake Arrowhead area (2002-2005); Worked closely with Local, County and State Agency personnel to develop an effective program to safely remove hazard trees in the Lake Arrowhead area; Coordination of logistics of hazard tree take-downs, removal and marketing of forest products in and around the Lake Arrowhead area; Sub-Contractor for Southern California Edison (Power Line Corridor Tree Removal – 3 Months, 2003); Complying with the California Forest Practice Act as a Licensed Timber Operator (#A7052).

##### **May, 1997 to December, 2001 • Vice President / Co-Owner of Evergreen Resource Management (ERM), and; June, 1990 to June 1997 • Vice President / Forester for Almanor Forest Products (AFP).**



**Duties include:** Various types of financial and economic decision-making; marketing standing timber to prospective sawlog buyers; supervision of two logging crews (AFP), as well as numerous contract loggers used by AFP and ERM; coordinating logistics of logging operations; preparation and administration of Timber Harvest Plans under the California Forest Practice Act; compilation and administration of contracts with landowners and loggers; determining silvicultural prescriptions, timber volume and grade information; designation of harvest and/or leave trees; forest stand evaluation (individual tree and/or stand health); forest and fire ecology; reforestation; mapping; harvest-unit layout; road-system layout; road construction; road maintenance; logging systems (tractor, cable, helicopter); log quality control; soils identification and evaluation; watercourse evaluation and protection; wildlife protection; design and implementation of “fire-safe” areas around homes and communities in Wildland Urban Interface (WUI) areas.

### **EDUCATION:**

September, 1986 to June, 1990:

Bachelor of Science degree in Forest Management from Oregon State University, Corvallis, OR. Work completed and degree received in June, 1990.

September, 1984 to June, 1986:

Lassen Community College. Major - General Education.

### **LICENSES and CERTIFICATES:**

- California Registered Professional Forester # 2485
- California Licensed Timber Operator # B 7052
- Cal-Fire Archeological Training Certificate

### **ORGANIZATIONS AND AFFILIATIONS:**

- 1992 to Present: California Licensed Foresters Association
- March 2018 to Present: Lassen National Forest Resource Advisory Committee
- July, 2018 to January, 2019: Vice Chair, Lassen County Fire Safe Council Board of Directors
- March 2002 to December 2008: Rotary International – (Paul Harris Fellow, February 2006)
- October, 1992 to November, 1994: Lassen County Planning Commissioner, District 4
- October, 1994 to August, 1996: California Farm Bureau Forestry Advisory Committee

### **PRESENTATIONS:**

- HL Power Biomass Plant Tours: USFS, BLM, Various School and Community Groups – 2-3 Tours annually.
- Lassen County Fire Safe Council Presentation at National Firewise Conference, Tampa, Florida, November, 2008.
- Moderator and Speaker for Sierra Cascade Logging Conference, “Lake Arrowhead Panel” – February, 2004.
- Lake Arrowhead Bark Beetle Presentation – Southern California Society of American Foresters, San Bernardino, Ca., Summer, 2003.
- Lake Arrowhead Bark Beetle Field Tour – Southern California Society of American Foresters, Summer, 2003.