

June 2, 2025

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Subject: Submission of BVES's 2026-2028 Wildfire Mitigation Plan Non-Substantive Errata

Dear Mr. Tony Marino,

Pursuant to Section 7 of Office of Energy Infrastructure Safety (Energy Safety) Policy Division Process Guidelines (Process Guidelines), Bear Valley Electric Service, Inc. (BVES) hereby submits its non-substantive errata for the 2026-2028 WMP.

The errata are as follows:

- Attachment 1: Page 68: As shown in Table 5-6 of BVES's 2026-2028 Base WMP, RA-2-A should be titled "Develop wildfire mitigation programs and procedures to support use of integrated models."
- Attachment 2: Pages 63-64: The introductory content directly under Section 5.6 was deleted. This content is provided on pages 64-65 in Section 5.6.1.
- Attachment 3: Page 285: The AFN Plan link was corrected.

The corrections noted above were identified during the discovery process for the 2026-2028 WMP. Please let us know if you need any additional materials or clarifications.

Sincerely,

/s/ Paul Marconi

Paul Marconi President, Treasurer, & Secretary Bear Valley Electric Service, Inc.



5.7.2 RA-1-B. Develop verification and validation documentation for ignition models.

- Problem statement All assets (i.e, arresters and connectors), a more refined vegetation treatment (i.e., separate asset instead of included in the pole asset), and PSPS treatment is necessary.
- **Planned Improvement** Inclusion of additional assets (i.e., arresters and connectors), refinement of vegetation treatment (i.e., separate asset instead of included in the pole asset), and refinement to the PSPS probability
- **Anticipated Benefit** BVES anticipates the benefit to be the ability to have more granularity on each asset and risk component for more refined decision making .
- **Region prioritization (where relevant)** BVES will analyze its entire service territory through this initiative.
- 5.7.3 RA-1-C. Develop verification and validation documentation for ignition models.
- **Problem statement** PEDS is currently not in the DIREXYON Model
- **Planned Improvement** Inclusion of this new risk component.
- **Anticipated Benefit** BVES will be able to understand the benefits and risk associated with the PEDS component of the WMP.
- **Region prioritization (where relevant)** BVES will analyze its entire service territory through this initiative.

5.7.4 RA-2-A. <u>Develop wildfire mitigation programs and procedures to</u> <u>support use of integrated models.</u> Develop verification and validation documentation for ignition models.

- **Problem statement** As BVES transitions to the integrated software suite of DIREXYON and Technosylva, more rigorous internal protocols are necessary.
- **Planned Improvement** Establish data transfer, quality control, and periodicity controls between BVES, Technosylva, and DIREXYON
- **Anticipated Benefit** By establishing internal quality control standards and guidelines. BVES will be able to drive improvements to the process.
- **Region prioritization (where relevant)** BVES will analyze its entire service territory through this initiative.



5.6 Quality Assurance and Quality Control

BVES has utilized third parties such as Technosylva and DIREXYON to review and process its data as it pertains to risk. Both firms use open, peer reviewed data sets, along with BVES data, to develop their models. BVES will continue to explore methods to improve its data gathering, QA/QC processes, and independent review of its data, models, and assumptions.

Internally, the data for BVES's Risk-Based Decision-Making Framework and Fire Safety Circuit Matrix utilize internal data gathered from BVES staff and contractors across the service territory as well as data BVES gathers from the CPUC, other utilities, the US Census Bureau, the National Weather Service, and more. BVES seeks data from these reliable sources and takes pains to ensure the data is accurate, timely, and fit for the purpose to which it is applied.

Technosylva uses the following independent review results (Guide ASTM E 1355) described below:

- The core models implemented in WFA-E form the basis of most operational propagation models in use today (Andrews et al 1980, Gould 1991). They have been implemented in well-known software like NEXUS (Scott and Reinhardt 2001), Fire and Fuels Extension to Forest Vegetation Simulator (FFE-FVS) (Reinhardt and Crookston 2003), FARSITE (Finney 2004), Fuel Management Analyst (FMAPlus) (Carlton2005), FlamMap (Finney 2006) and BehavePlus (Andrews et al.2008). Nevertheless, forest fires are a very difficult phenomenon to simulate that depends on many different factors, therefore typical simulations can predict the source dataset with mean absolute percent errors between 20 and 40% (Cruz et al. 2013).
- One important factor in fire simulation is the definition of the fuel models, with analysis providing different results for different fuels and regions. For example, Sanders (2001) observed a pattern of over-prediction by FARSITE in fuel models 1,2,5 by a large margin, moderate in fuel 10 and some underprediction for fuel model 8. Zigner et al (2020) used two case studies during strong winds revealing that FARSITE was able to successfully reconstruct the spread rate and size of wildfires when spotting was minimal. However, in situations when spotting was an important factor in rapid downslope wildfire spread, both FARSITE and FlamMap were unable to simulate realistic fire perimeters. Ross et al. (2006) used measurements from temperature sensors during prescribed burn in the Appalachian Mountains to recreate the fires and compared fire behavior simulated by FARSITE. They obtain a set of ROS adjustment factor of 1.5 and 2 for fuels 9 and 11 respectively, and a decreasing factor of 0.2 to the fuel type 6.



 Apart from these reviews, Technosylva has been constantly improving the accuracy and performance of the published fire models to better adjust the results to observed fire behavior. This includes a better definition of the fuel types, improved forecast of live fuel moisture content, modifications to the crown fire modeling initialization scheme, and automatic fire adjustment based on data assimilation techniques using ROS adjustment factor. In addition, Technosylva has implemented more than 21 additional models into the WFA-E platform to enhance accuracy and address known limitations of published fire models. These improvements include crown fire analysis, ember and spotting, urban / nonburnable area encroachment, consequence and impact quantification, etc. It is important to note that improvement of the fire modeling platform of choice necessitates not only improvements in mathematical algorithms but substantial improvements in the accuracy and resolution of input data sources. These improvements work in concert to enhance the modeling and outputs to match observed and expected fire behavior. A robust operationalization of fire models requires constant and ongoing research, testing, validation and implementation of both models and data sources.

With more reliance on the integration of Technosylva and DIREXYON software tools and data sources integration with BVES data sets, a risk assessment improvement activity has been added to establish a process and protocol for 1) sharing of data, 2) validating that data used is correct, 3) establishing a data schema such that the correct 'source of truth' is used, and finally setting up a periodicity for data updates such that the data is received in timely manner.

5.6.1 Independent Review

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Internally, the data for BVES's Risk-Based Decision-Making Framework and Fire Safety Circuit Matrix utilize internal data gathered from BVES staff and contractors across the service territory as well as data BVES gathers from the CPUC, other utilities, the US Census Bureau, the National Weather Service, and more. BVES seeks data from these reliable sources and takes pains to ensure the data is accurate, timely, and fit for the purpose to which it is applied.

Technosylva uses the following the independent review results (Guide ASTM E 1355) described below:



Bear Valley Electric Service 2026-2028 Wildfire Mitigation Plan

Medical Baseline Customers	0.62% of total customers	Concentrated in high-risk wildfire zones and remote areas
Individuals with Disabilities	BVES starting tracking these detailed AFN metrics on December 19, 2024	Primarily in residential neighborhoods and AFN communities
Seniors (Ages 65+)	BVES starting tracking these detailed AFN metrics on December 19, 2024	Widely distributed but higher concentrations in rural areas
Populations with Limited English Proficiency (LEP)	BVES starting tracking these detailed AFN metrics on December 19, 2024	Primarily Spanish-speaking and Tagalog-speaking populations
Low-Income & Transportation- Challenged Residents	BVES starting tracking these detailed AFN metrics on December 19, 2024	Higher reliance on community-based support and in-person outreach

(See <u>BVES AFN Plan</u>, Section 3.1 for detailed AFN customer demographic data and geographic distribution trends.)

Challenges & Needs of AFN Populations During Wildfires & PSPS Events

AFN populations experience heightened vulnerabilities before, during, and after wildfire or PSPS incidents due to medical dependencies, mobility constraints, communication barriers, and evacuation challenges. BVES actively works to identify these critical risk factors through customer engagement, stakeholder partnerships, and data analysis.

Challenge	Implications During Wildfires & PSPS Events	
Medical Equipment Dependency	Loss of power disrupts life-sustaining medical devices (e.g., ventilators, CPAP machines, refrigeration for medications).	
Limited Mobility & Transportation Access	Challenges with evacuations, CRC access, and emergency transport assistance during fire threats and outages.	
Communication Barriers	AFN customers require alternative notification formats, text-to-speech options, and ASL interpretation for emergency alerts.	
Language Access Limitations	Customers with Limited English Proficiency (LEP) require translated notifications and in-language support services.	
Digital Divide & Technology Gaps	Many low-income and older adult residents lack internet or smartphone access, requiring phone-based and in-person outreach.	
Evacuation & Shelter Accessibility	Limited availability of ADA-compliant evacuation centers and shelters with AFN accommodations.	
(See BVES AFN Plan, Section 4.1 for a full assessment of AFN challenges and risks.)		

BVES Table 11-10 Key Challenges Identified for AFN Customers

BVES Strategies to Address AFN-Specific Needs