

Revision 0



Submitted by:

Bear Valley Electric Service, Inc.

April 2, 2024



Table of Contents

1. Updates to Risk Models	
1.1 Significant Updates	1
1.1.1 Top Risk-Contributing Circuits, Segments, or Spans	
1.1.2 Qualitative Updates	2
1.2 Non-Significant Changes	
2. Changes to Approved Targets, Objectives, and Expenditures	
2.1 2025 Targets or Target Completion Dates	7
2.2 Initiative Objectives	
2.3 Expenditures Changes	
3. Quarterly Inspection Targets for 2025	12
4. New or Discontinued Programs	13
5. Progress on Areas for Continued Improvement	14



1. Updates to Risk Models

The electrical corporation must report on updates to its risk models. The collective updates to risk models are categorized as either "significant" or "non-significant." The electrical corporation must categorize the collective changes to its risk models as either significant updates or non-significant updates, not both. The proceeding subsections outline the thresholds to determine if updates to risk models are "significant" or "non-significant."

When determining if updates to risk models are "significant" (Section 1.1.1) or "non-significant" (Section 1.1.2), the electrical corporation's analysis must be independent of risk reduction resulting from deployed mitigations described in the approved 2023-2025 Base WMP. For example, if a circuit was undergrounded in late 2023, the analysis would not take that risk reduction into account and would evaluate the risk for that circuit consistent with the point in time represented by WMP Table 6-5 in the approved 2023-2025 Base WMP.

An electrical corporation must analyze its top 5 percent of highest risk circuits, segments, or spans3 to determine whether updates to its risk models are significant. An electrical corporation's top ignition risk circuits, segments, or spans are the top 5 percent of highest ignition risk circuits, segments, or spans when the circuits, segments or spans are ranked individually from highest to lowest circuit-mile-weighted ignition risk. An electrical corporation's top Public Safety Power Shutoff (PSPS) risk circuits, segments or spans are the top 5 percent of highest PSPS risk circuits, segments, or spans when the circuits, segments or spans are ranked individually from highest to lowest circuit-mile-weighted PSPS risk.

1.1 Significant Updates

If an electrical corporation's updates to its risk models are significant, it must:

- Discuss its updated methodology and models (e.g., using a new machine learning algorithm, changing how wildfire consequences are calculated, or changes to assumptions);
- Provide justification for the updates;
- Show how risk has shifted as a result of the updates; and
- Report any resulting changes to prioritization of mitigation initiatives and scheduling and workplans for the implementation of mitigation initiatives resulting from these updates.

The electrical corporation must use the format established by Tables 1-1 and 1-2 of these 2025 WMP Update Guidelines to summarize the updated top 5 percent of highest-risk circuits, segments, or spans.5 If one or both tables are more than 20 lines, then an electrical corporation may submit a spreadsheet as an attachment to the 2025 WMP Update rather than a table to provide the information. Discussions of significant updates to risk models must be limited to 20 pages total. Figures and tables are excluded from the 20-page limit.

1.1.1 Top Risk-Contributing Circuits, Segments, or Spans

Significant updates to risk models are defined as:

- Any change or combination of changes to a risk model that moves 10 percent or more of ignition risk into or
 out of the top ignition risk circuits, segments, or spans,6 and/or
- Any change or combination of changes to a risk model that moves 10 percent or more of PSPS risk into or out of the top PSPS risk circuits, segments, or spans.

The electrical corporation must use the format established by Tables 1-1 and 1-2 of these 2025 WMP Update Guidelines to summarize the updated top 5 percent of highest risk circuits, segments, or spans. If one or both tables are more than 20 lines, then an electrical corporation may submit a spreadsheet as an attachment to the 2025 WMP Update rather than a table to provide the information. Discussions of significant updates to risk models must be limited to 20 pages. Figures and tables are excluded from the 20-page limit.



This section of the 2025 WMP Update is not applicable to BVES as BVES did not conduct significant updates to its risk model used to calculate the risk score for its circuits.

1.1.2 Qualitative Updates

Updates to risk models are also considered significant if any of the following qualitative updates are made:

- Introduction of a new model.
- Discontinuation of an existing model.
- Any change in existing model application or use-case. For example, newly applying an existing vegetation risk model to PSPS decision-making.
- Introduction of new data types. For example, incorporating additional risk drivers into newer versions of a model.
- Changes to data sources. For example, using a new source of data to measure vegetation moisture content.
- Changes to third-party vendors for risk modeling or inputs to risk modeling.

Examples of qualitative updates that are not considered significant updates to risk models include, but are not limited to, the following:

- Updating an existing dataset (e.g., augmenting ignition and outage datasets with 2023 data).
- Fixing code errors.

DIREXYON

BVES collaborated with DIREXYON to introduce a new risk modeling tool to their wildfire risk mitigation practices.

DIREXYON's expertise has empowered numerous organizations to improve their risk management and financial optimization. Leveraging the use of the DIREXYON Solution, this project is dedicated to developing an advanced fire risk model that seeks to bridge critical gaps in BVES's risk modeling capabilities. DIREXYON's focus is on integrating decision-making policies within existing constraints, emphasizing a comprehensive evaluation of the network's conditions. The key areas identified for enhancement are as follow:

- 1. Equipment ignition likelihood;
- Contact from vegetation ignition likelihood;
- 3. Contact by object ignition likelihood;
- Wildfire spread likelihood;
- 5. Wildfire hazard intensity;
- 6. Wildfire exposure potential
- 7. Wildfire vulnerability
- 8. PSPS exposure potential
- 9. Vulnerability of community to PSPS



Figure 1.1.2-1 below provides a high-level schematic of the inputs, the modeling components as well as the outputs and insights generated as part of the first phase of the implementation of DIREXYON.

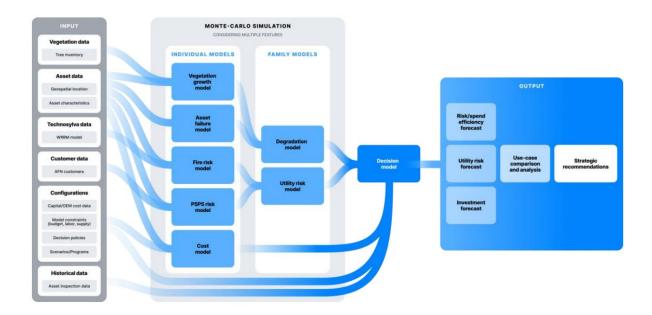


Figure 1.1.2-1: DIREXYON Phase 1 Schematic for BVES Fire Risk Assessment

Fire risk and PSPS components of the model constitute the core of the model. The fire risk assessment integrates multiple factors, including asset related characteristics, equipment ignition, and vegetation contact. Simultaneously, the PSPS risk assessment considers wildfire spread, hazard intensity, exposure potential, and community vulnerability, thus providing a comprehensive overview of the network's resilience to both fire-related incidents and PSPS events.

Three distinct use cases have been outlined to offer comprehensive insights into the necessary investment levels to meet regulatory minimums, ascertain the current state of affairs, assess the short-term and long-term impacts of the existing BVES strategy on network conditions, and explore alternative fire mitigation strategies. Within each use case, DIREXYON considers three weather trends, categorized as optimistic, normal, and pessimistic, based on varying Technosylva percentiles. DIREXYON utilizes Monte-Carlo simulations to calculate a vast array of potential scenarios for asset degradation, cost uncertainties, and other variables, offering a more realistic and robust perspective on the range of possible outcomes.

This approach ensures a thorough examination of scenarios under different climatic conditions, enhancing the robustness of the analysis. In conclusion, this project in the first phase seeks to rectify identified gaps within Bear Valley's 2023 Wildfire Mitigation Plan (WMP) while furnishing users with a tool for testing and appraising diverse fire mitigation strategies.

The results of this analysis indicates that the BVES Strategy's investment approach (use case 2), focusing on more than just meeting the GO 165 minimum requirements (use case 1), demonstrates substantial long-term value by consistently maintaining fire risks at lower levels. By incorporating a variety of mitigation measures such as extensive vegetation management, fire wrap installations, and the proactive replacement of conductors, the strategy realizes a



lower and more stable fire risk. This suggests that a relatively higher initial outlay for comprehensive fire risk mitigation measures can provide significant sustained benefits. The long-term payoff of this approach is clear when compared to Use Case 3, where the strategic choice to replace wood poles with more durable steel poles implies high upfront costs but promises greater savings over time due to reduced maintenance and replacement needs.

Use Case 3 offers an intriguing balance by potentially reducing the need for future interventions, which could be especially compelling given its implications for risk reduction and enhanced network resilience. As infrastructure ages, the investment strategies behind these use cases are crucial, with the proactive and preventative measures of Use Cases 2 and 3 likely resulting in lower average infrastructure ages and correspondingly lower costs and risks in the long run.

The outcomes from the DIREXYON tool empowers BVES with a comprehensive understanding of network conditions, enabling proactive risk management and informed decision-making for a more resilient and secure energy infrastructure.

Solution Methodology

The DIREXYON Solution enables program design activities. Program design requires the combination of all three core capabilities, i.e., asset forecasting, decision-making and portfolio management, and can be viewed as the end result of the approach. The DIREXYON Solution encompasses a powerful asset modelling tool where an unlimited number of models could be configured by simple "drag and drop". Its simplicity allows users to model their asset portfolio without the need for programming. First, sophisticated asset evolution and condition models, risk models, level of services, KPIs and any other relevant indicators can be configured. Then, an unlimited number of intervention options as well as their costs and impacts can be defined. Finally, realistic scenarios can be built by simple configuration of user-defined constraints.

In addition, the DIREXYON Solution is designed to enable the organization to formalize the internal decision-making processes that are driving asset management planning strategies. The entire decision-making process can be realistically modeled using decision trees that are then used to perform a combinatorial analysis. A decision tree represents a series of decisions, and the criteria used, leading to the application of an intervention choice. The criteria can be related to the condition of the assets, the use of the assets, the degradation of the assets, the different risks, constraints, standards, etc. Decision trees also allow to manage unforeseen events, such as equipment failures or defects. The scenario and optimization module of the platform can be used to configure and launch several Monte-Carlo simulations (scenarios), simultaneously when needed, to compare several strategies. This approach allows the evaluation of conditional scenarios (what-if scenarios), sensitivity analysis and the evaluation of the impact of constraints on the ability to deliver programs.

Considering the stochastic nature of asset evolution is a key component of an advanced asset management methodology, the DIREXYON Solution provides a global perspective of the risk associated with the tested strategies. The user is also able to evaluate the impact of the actions undertaken on the probability of achieving the targeted objectives. The decision-making acuity provided by the DIREXYON Solution allows decision-makers to evaluate these options according to their risk tolerance.

Technosylva FPI



In its initial submission of its 2023-2025 Base WMP, BVES discussed plans to develop and implement an FPI model developed by Technoslyva tailored to the BVES service area. As part of its 2025 WMP Update BVES provides an update in Section 6.2.2 related to the implementation and operation of the FPI model and how it is being used daily as an operations tool related to wildfire potential and PSPS.

1.2 Non-Significant Changes

If an electrical corporation's updates to its risk models do not meet the "significant" criteria of Section 1.1.1, the electrical corporation must provide a tabulated summary of changes in risk ranking of the top 5 percent ignition risk and PSPS risk circuits, segments, or spans.

The electrical corporation must use the format established by Tables 1-1 and 1-2 of these 2025 WMP Update Guidelines to summarize the updated top 5 percent of highest risk circuits, segments, or spans. 8 If one or both tables are more than 20 lines, then an electrical corporation may submit a spreadsheet as an attachment to the 2025 WMP Update rather than a table to provide the information.

Energy Safety defines a non-significant update as:

- Any change or combination of changes to the risk model that moves less than 10 percent of ignition risk into
 or out of the top ignition risk circuits, segments, or spans and less than 10 percent PSPS risk into or out of
 the top PSPS risk circuits, segments, or spans; or
- Any change that only moves ignition and PSPS risk within the top risk segments.

Since the submission of its 2023-2025 Base WMP, BVES has not made significant updates to its risk model that generates the wildfire risk score for its top risk circuits (Table 6-5 of its approved 2023-2025 Base WMP). All changes to the risk scores associated with BVES's top risk circuits are related to mitigation efforts that occurred in 2023. The below table highlights the new risk scores of the top risk circuits in BVES's service territory. This table is provided to highlight BVES's mitigation efforts and show the current state risk scoring of the service territory.

Circuit	Wildfire Risk Score	Ignition Risk Score	PSPS Risk Score
Radford	31214.88	60	30
North Shore (Fawnskin)	6603.536667	30	30
Baldwin	6321.91	30	60
Holcomb (Bear City)	4717.87	30	30
Goldmine	4534.8	30	30
Clubview	2642.98	30	30
Pioneer (Palomino)	2447.08	30	30
Sunset	2001.92	30	30
Sunrise (Maple)	1538.99	30	30
Lagonita	1531.14	30	30
Eagle	1510.186667	30	30
Castle Glen (Division)	1481.82	30	30
Georgia	1380.19	30	30
Garstin	1166.4	30	30
Paradise	1139.626667	30	30





Circuit	Wildfire Risk Score	Ignition Risk Score	PSPS Risk Score
Interlaken	1128.55	30	30
Harnish (Village)	794.06	30	30
Boulder	700.22	30	30



2. Changes to Approved Targets, Objectives, and Expenditures

The electrical corporation must report qualifying changes to targets, objectives, and expenditures from its approved 2023-2025 Base WMP. Each change must be justified by lessons learned, internal policy changes, new laws or regulations, corrective actions resulting from Energy Safety's compliance process, 10 or other explanations for the change. Thresholds for qualifying changes to targets, objectives, and expenditures are set forth below.

2.1 2025 Targets or Target Completion Dates

For large volume work (equal to or greater than 100 units), the electrical corporation must report changes of 10 percent or greater to a 2025 target from the electrical corporation's approved 2023-2025 Base WMP.

For small volume work (less than 100 units), the electrical corporation must report changes of 20 percent or greater to a 2025 target from the electrical corporation's approved 2023-2025 Base WMP.

Initiative Activity	Tracking ID	Units	2024 Submitted Target	2024 Updated Target	2024 % Change	2025 Submitted Target	2025 Updated Target	2025 % Change	Meets Requirements	WMP Section
Covered Conductor Installation	GD_1	Circuit miles of lines replace	12.9	12.9	0%	12.9	5.1	60%	Yes	Section 8.1.1.2, Table 8- 3; pg. 116
Covered Conductor Installation	GD_2	Circuit miles of lines replace	0	2.7	100%	0	0	0%	Yes	Section 8.1.1.2, Table 8- 3; pg. 116
Distribution pole replacements and reinforcement s	GD_4	Number of Poles Replace d	200	200	0%	200	100	50%	Yes	Section 8.1.1.2, Table 8- 3; pg. 116
Distribution pole replacements and reinforcement s	GD_5	Number of Poles Replace d	0	70	100%	0	0	0%	Yes	Section 8.1.1.2, Table 8- 3; pg. 116



- GD_1 Covered Conductor Installation: For the 2023-2025 period, BVES targeted a goal to install 38.7 circuit miles of covered conductors. In 2023, BVES installed 20.7 circuit miles of covered conductors, surpassing its initial projection of completing 12.9 circuit miles of installations. In 2024, BVES plans to install 12.9 circuit miles of covered conductors which amounts to its original projection. By installing 5.1 circuit miles of covered conductors in 2025, BVES will meet its three-year objective of installing 38.7 miles of covered conductors.
- GD_2 Covered Conductor Installation: Due to the delay in receiving the USFS permit, which BVES received January 3, 2024, the target of installing 2.7 circuit miles in 2023 will now be shifted to 2024. BVES plans to complete the 2.7 circuit miles of installations in Q3 of 2024.
- GD_4 Distribution Pole Replacements and Reinforcements: The target of replacing 200 poles in 2025 will now be adjusted to 100 pole replacements. In 2023, BVES projected to replace 200 poles but replaced 309 poles. BVES will stick to its 2024 projection and replace 200 poles during the year. The adjustment means that in 2025, BVES will replace 100 poles to reach its 3-year goal of replacing 600 poles.
- GD_5 Distribution Pole Replacements and Reinforcements: As reported above for GD_2, the delay in receiving the USFS
 permit resulted in the 2023 goal of replacing 70 poles being pushed back to 2024. BVES plans to achieve its initial goal and
 replace 70 poles by Q3 of 2024.

2.2 Initiative Objectives

The electrical corporation must report any changes to forecasted initiative objective completion dates in its approved 2023-2025 Base WMP that shift an objective's completion to a different compliance period.11

The electrical corporation may not add or delete 3- and 10-year objectives set forth in its approved 2023-2025 Base WMPs.



Initiative Activity	Units	Tracking ID	Submitted WMP Completion Date	Updated Expected Completion Date	Justification for Change	WMP Section
Other technologies and systems not listed above	Project Milestones for Lake Substation	GD_23	2025	2026	The reprogramming of the substation initiatives is due to work loading and planning constraints. Higher priority initiatives are utilizing more planning resources than projected. Additionally, substation equipment is facing delivery delays of 12 to 15 months due to supply chain issues.	Section 8.1.1.2, Table 8-3; pg. 120
Other technologies and systems not listed above	Project Milestones for Village Substation	GD_24	2025	2027	The reprogramming of the substation initiatives is due to work loading and planning constraints. Higher priority initiatives are utilizing more planning resources than projected. Additionally, substation equipment is facing delivery delays of 12 to 15 months due to supply chain issues.	Section 8.1.1.2, Table 8-3; pg. 120

2.3 Expenditures Changes

The electrical corporation must report any changes to 2025 projected expenditures in its approved 2023-2025 Base WMP that result in an increase or decrease of more than \$10 million or constitute a greater than 20 percent change in an initiative's planned total expenditure in the 2025 compliance period.



WMP Initiative Category	WMP Initiative Activity	Utility Initiative Tracking ID	2024 Percent Change	2025 Percent Change	2024 Projected CAPEX	2024 Projected OPEX	2025 Projected CAPEX	2025 Projected OPEX	2024 Adjusted CAPEX	2024 Adjusted OPEX	2025 Adjusted CAPEX
Grid Design, Operations, and Maintenance	Covered conductor installation	GD_1	0%	60%	4737.29	0	4655.694	0	4737.29	0	1840.623
Grid Design, Operations, and Maintenance	Covered conductor installation	GD_2	100%	0%	0	0	0	0	3513.803	0	0
Grid Design, Operations, and Maintenance	Distribution pole replacements and reinforcements	GD_4	0%	72%	2030.267	0	2789.368	0	2030.267	0	788.838
Grid Design, Operations, and Maintenance	Distribution pole replacements and reinforcements	GD_5	100%	0%	0	0	0	0	1505.916	0	0
Grid Design, Operations, and Maintenance	Microgrids	GD_10	100%	100%	13578.409	0	0	0	0	0	13578.409
Grid Design, Operations, and Maintenance	Microgrids	GD_11	100%	100%	10342.009	0	0	0	0	0	10342.009
Grid Design, Operations, and Maintenance	Other technologies and systems not listed above	GD_22	100%	100%	1777.479	0	0	0	0	0	1777.479

WMP Initiative Category	WMP Initiative Activity	Utility Initiative Tracking ID	2024 Percent Change	2025 Percent Change	2024 Projected CAPEX	2024 Projected OPEX	2025 Projected CAPEX	2025 Projected OPEX	2024 Adjusted CAPEX	2024 Adjusted OPEX	2025 Adjusted CAPEX
Grid Design, Operations, and Maintenance	Other technologies and systems not listed above	GD_23	0%	100%	0	0	2065.781	0	0	0	0
Grid Design, Operations, and Maintenance	Other technologies and systems not listed above	GD_24	0%	100%	0	0	1144.054	0	0	0	0

^{*}Financials in the table are represented in thousands.



3. Quarterly Inspection Targets for 2025

The electrical corporation must define quarterly targets (end of Q2 and end of Q3) for 2025 asset and vegetation inspection targets established as end-of-year targets in its approved 2023-2025 Base WMP. The electrical corporation must use the format established by Table 3-1 to report these quarterly targets. Changes to end-of-year 2025 targets must be reported and explained pursuant to Section 2: Changes to Targets, Objectives, and Expenditures, above.

For its redlined and clean 2023-2025 Base WMP, the electrical corporation must add columns for end of Q2 2025 and end of Q3 2025 targets to its asset inspection and vegetation inspection target tables.12

Following the submission and approval of its 2023-2025 Base WMP, BVES made updates to its GIS data and determined that the overhead system contains 205 circuit miles not the previously used 211 circuit miles. Following that data update BVES adjusted all programs that used the 211 circuit mile metric to the new 205 circuit mile metric. While conducting the 2025 WMP Update BVES also identified that VM_6 had incorrect data in its 2023-2025 Base WMP Submission so it was updated to reflect the appropriate recording metrics. The updated metrics to not represent a change in target, but rather an error in documentation. The above information is captured in more detail in Section 2 of this report.

Initiative Activity	Tracking ID	Units	Target End of Q2 2025	Target End of Q3 2025	End of Year Target 2025	X% Risk Impact 2025
Asset inspections	GD_25	Circuit Miles Inspected	0	20	53	4.36%
Asset inspections	GD_26	Circuit Miles Inspected	102	153	205	4.36%
Asset inspections	GD_27	Circuit Miles Inspected	0	205	205	4.36%
Asset inspections	GD_28	Circuit Miles Inspected	0	205	205	4.36%
Asset inspections	GD_29	Circuit Miles Inspected	0	205	205	4.36%
Asset inspections	GD_30	Circuit Miles Inspected	0	205	205	4.36%
Asset inspections	GD_31	Number of Poles Intrusively Inspected	0	300	850	4.36%
Asset inspections	GD_32	Number of Substations Inspected	72	108	144	4.36%
Vegetation inspections / Detailed Inspection	VM_1	Circuit Miles Inspected	0	20	53	4.36%
Vegetation inspections / Patrol Inspection	VM_2	Circuit Miles Inspected	102	153	205	4.36%
Vegetation inspections / UAV HD Photography / Videography	VM_3	Circuit Miles Inspected	0	205	205	4.36%
Vegetation inspections / LiDAR Inspection	VM_4	Circuit Miles Inspected	0	205	205	4.36%
Vegetation inspections / 3 rd Party Ground Patrol	VM_5	Circuit Miles Inspected	0	205	205	4.36%
Vegetation inspections / Substation Inspection	VM_6	Number of Substations Inspected	72	108	144	4.36%

Page 12



4. New or Discontinued Programs

The electrical corporation must report on the creation of a new program or the discontinuance of a program described in its approved 2023-2025 Base WMP. Each change must be justified by lessons learned, 13 internal policy changes, new laws or regulations, corrective actions resulting from Energy Safety's compliance process, 14 or other explanations for the change.

An electrical corporation's discussion on new or discontinued programs must be limited to 20 pages total. Figures and tables are excluded from the 20-page limit.

BVES introduced two new programs since the acceptance of its 2023-2025 Base WMP. These programs are not in response to a policy, law, or regulation change but rather to continue to improve BVES's Grid Monitoring and Vegetation Management programs. BVES wants to continue to be on the forefront of technology adoption in its wildfire mitigation efforts.

The first program addition is AiDash (Section 8.2.2.7 of the 2023-2025 Base WMP). AiDash software uses satellite imagining providing a rapid assessment of BVES's service territory and insight into whether vegetation should be assessed or moved up in priority for upcoming patrol, detailed, or third-party ground inspections. The AiDash assessment allows BVES to gain a comprehensive understanding of its service territory at a glance. AiDash also provides a complementary review of BVES's vegetation management program. BVES acknowledged the trend in wildfire mitigation towards validation and confirmation of planning associated with Vegetation and Asset based work. AiDash allows BVES to confirm that its planning efforts for vegetation management are not based upon merely institutional knowledge, but rather validated by objective satellite imagery and Ai-based future state modeling and projections.

The second program addition is the GreenGrid iSIU System (Section 8.3.3.1 if the 2023-2025 Base WMP). BVES was approached by GreenGrid to conduct a pilot for its iSIU System. The iSIU System is a camera-based inspection and monitoring device. The device consists of a camera, optical sensors, communication module, processor and power module in one integrated unit. The devices have been strategically placed on poles on the Boulder and North Shore Circuits and allow for autonomous monitoring of the power line infrastructures and advise the remote maintenance, inspections, or operations crews on potentially hazardous events automatically, thus saving operational cost and reducing risks to humans and the environment. Incorporating proprietary artificial intelligence, the cameras are made smart allowing for communication of actionable asset and ignition management information to the end user. While this program is still in its pilot phase, BVES believes the information that is currently providing is beneficial to its asset monitoring. BVES will continue to evaluate the program in 2024 and make a determination on whether it will be expanded in its 2026-2028 Base WMP.

David 42



5. Progress on Areas for Continued Improvement

The electrical corporation must report on progress required by the areas for continued improvement identified in Energy Safety's Decision on the electrical corporation's 2023-2025 WMP.15 The electrical corporation must provide narrative responses to each required progress that specified reporting in the 2025 WMP Update. This narrative response must include:

- Code and title of the area for continued improvement,
- Description of the area for continued improvement,
- Required progress, and
- The electrical corporation's response to the required progress.

The electrical corporation may refer to other sections of its 2025 WMP Update when reporting on areas for continued improvement if there is a duplication of reporting.

Issue #	Title	Description	Required Progress	Status
BVES- 23-01	Target Verification Methods	BVES lists "quantitative" as its targets' verification method. It is not clear from this response what BVES methodology is to verify progress toward and achievement of the target.	In its 2026-2028 Base Wildfire Mitigation Plan (WMP), BVES must include all methods used to verify progress of year-to-year targets within the table. BVES must clearly articulate its verification methods that are effective for supporting the progress and achievement of each target.	BVES, as required by the November 6, 2023, Revision Notice, will include all of the methods used to verify the progress and achievement of year-to-year targets, and increase articulation of the effectiveness of those methods, in its 2026 – 2028 Base WMP.
BVES- 23-02	PSPS and Wildfire Risk Trade-Off Transparency	BVES does not provide adequate transparency regarding PSPS and wildfire risk trade-offs, or how it uses risk ranking and risk buy-down to determine risk mitigation selection.	In its 2025 Update, BVES must describe: - How it prioritizes PSPS risk in its risk-based decisions, including trade-offs between wildfire risk and PSPS risk. - How the rank order of its planned mitigation initiatives compares to the rank order of mitigation initiatives ranked by risk buy-down estimate, along with an explanation for any instances where the order differs.	BVES includes additional descriptions of how it assesses the tradeoff between wildfire risks and PSPS, including how it uses risk ranking and risk buy-down to determine risk mitigation initiative selection in Sections 6 and 7.

Issue #	Title	Description	Required Progress	Status
BVES- 23-03	Cross-Utility Collaboration on Best Practices for Inclusion of Climate Change Forecasts in Consequence Modeling, Inclusion of Community Vulnerability in Consequence Modeling, and Utility Vegetation Management for Wildfire Safety	BVES and the other IOUs have participated in past Energy Safety-sponsored scoping meetings on these topics but have not reported other collaboration efforts.	BVES and the other IOUs must participate in all Energy Safety-organized activities related to best practices for: - Inclusion of climate change forecasts in consequence modeling Inclusion of community vulnerability in consequence modeling Utility vegetation management for wildfire safety. BVES must collaborate with the other IOUs on developing the above-mentioned best practices. In their 2025 Updates, the IOUs (not including independent transmission operators) must provide a status update on any collaboration with each other that has taken place, including a list of any resulting changes made to their WMPs since the 2023-2025 WMP submission.	BVES has recently joined bi-monthly WMP Joint IOU meetings and attends the CalFire Wildfire Mitigation Advisory Committee meetings, covering a range of topics including Climate Change Forecasts in Consequence Modeling, Inclusion of Community Vulnerability in Consequence Modeling, and Utility Vegetation Management for Wildfire Safety. BVES participation and collaboration with adjacent IOUS's is represented in table 8-63 in the WMP. Additionally, the aforementioned subjects are covered within the Risk Modeling working group agenda. BVES has been an active participant in all Energy Safety-led risk modeling workshops since inception and is committed to future involvement all Energy Safety-led risk modeling working group meetings. BVES has attended other Energy Safety-led workshops pertaining to these topics and will continue to attend any future workshops.
			Risk Methodology and Assessment	
BVES- 23-04	Cross-Utility Collaboration on Risk Model Development	BVES and the other IOUs have participated in past Energy Safety-led risk modeling working group meetings. The risk modeling working group meetings facilitate collaboration among the IOUs on complex technical issues related to risk modeling. The risk modeling working group meetings are ongoing.	BVES and the other IOUs must continue to participate in all Energy Safety-led risk modeling working group meetings.	As discussed in Section 6, BVES has participated in every Energy Safety–led risk modeling workshop since the workshop began. BVES will continue to participate in all Energy Safety-led risk modeling working group meetings. BVES participation in risk-modeling workshops is captured in tables 8-63 and 11-2 of the WMP.
BVES- 23-05	Collaboration Between Vendor and Utility Risk Teams	BVES has not shown how its internal team and risk model vendor will share risk modeling duties.	In its 2025 WMP update, BVES must: - Demonstrate how BVES differentiates between activities completed by the internal staff and vendor staff throughout risk modeling narratives. This includes processes, procedures, methodologies, flow charts,	In pursuit of grid modeling efforts, BVES provides the required grid information, while Technosylva and DIREXYON provide the risk modeling information. The details of this collaboration are discussed in Section 6. BVES has written Quality Assurance (QA) and Quality Control (QC) procedures for reviewing risk

Issue #	Title	Description	Required Progress	Status
			schematics, and any explanations that describe collaboration with a risk modeling vendor. Demonstrate how BVES identifies activities that require vendor discretion and state whether final approval from the BVES risk team is required. This includes any decisions that need to be made, such as mitigation selection. Indicate the source of the data where a description of data is required, specifically indicating whether the data is internally generated, or vendor generated. If BVES cannot indicate the source of the data, it must explain why.	modeling protocols. BVES utilizes these models to determine if requirements for initiating Public Safety Power Shutoff (PSPS) events are met, wildfire preventative procedures, and grid hardening initiatives. All decisions regarding actions flowing from the utilization of these models are performed by BVES personnel. Technosylva co-published a paper with Cal Fire in the International Journal of Wildland Fire where they assess the performance of fire spread models for initial attack incidents used in California throughout the analysis of the rate of spread (ROS) of 1853 wildfires. Technosylva retrieved observed growth from the FireGuard (FG) Database, ran an automatic simulation with Wildfire Analyst Enterprise and assed the accuracy of the simulation by comparing observed and predicted ROS with well-known error and bias metrics, analyzing the main factors influencing accuracy. It was deemed that the model errors and biases were reasonable for simulations performed automatically. It was concluded that the fire spread model's performance for California is in line with studies developed in other regions and the models are accurate enough to be used in real time to assess initial attack fires.
			Wildfire Mitigation Strategy Development	
BVES- 23-06	Vendor Fire Risk Model Implementation Milestones and Dates	BVES's operational and planning models may experience many changes once the vendor model implementation is complete. Energy Safety needs more information regarding improvements BVES expects in its operational and planning models along with expected milestones and dates to ensure BVES is being transparent about	In its 2025 Update, BVES must describe how it will use the new vendor risk modeling software to improve operational and/or planning risk analysis and provide a plan with milestones and dates for achieving those improvements.	BVES describes the modifications to existing models as well as new models developed and implemented in 2023 or 2024 in detail in Sections 6.2.2, 7.1.3, and 7.1.4. This includes changes to vendor risk modeling software to improve operational or planning risk analyses made or implemented since last year's 2023-2025 WMP Updates. The Technosylva FireSight (previously named Wildfire Risk Reduction Model (WRRM)) model was implemented in February 2023 and was initially used to create a baseline showing the state of BVES's service territory with no WMP grid hardening initiatives. FireSight was then run taking into account WMP grid hardening initiatives in November 2023. These updated maps for Sub

Issue #	Title	Description	Required Progress	Status
		the state of its model maturity.		Transmission and Distribution are an additional tool used in the prioritization of grid hardening efforts. The updated graphics as outputted by the model can be found in Section 7.1.1 Figures 7-2 through 7-5.
			Grid Design, Operation, and Maintenance	
BVES- 23-07	Risk Informed Prioritization of Grid Hardening Installation	BVES's current covered conductor scope does not demonstrate proper decision-making considerations regarding project prioritization.	In its 2026-2028 Base WMP, BVES must: - Explain how it is focusing its covered conductor and other grid hardening projects in the areas of highest risk based on the most recent and available WRRM output. - Adjust its targets as needed based on its analysis.	BVES decisions of where to add covered conductor have always been based on risk reduction as all of BVES's service territory is designated as at least elevated risk by the CPUC HFTD maps. This is described in the 2023-2025 WMP. In this year's 2025 Update, BVES includes additional detail in Section 8.1 and where targets are adjusted based on analysis. BVES will also address this in the 2026 – 2028 Base WMP. BVES is currently using the Technosylva FireSight model, which integrates equipment failure and ignition probability data for assets with individual fire spread predictions to determine which assets are most likely to fail and cause an ignition, to determine where to install covered conductors.
BVES- 23-08	Covered Conductor Mitigation Selection	BVES's current covered conductor scope does not demonstrate proper decision-making considerations regarding mitigation selection.	In its 2026-2028 Base WMP, BVES must: - Demonstrate how it compares alternative initiatives, mitigations, and combinations of mitigations to covered conductor, and provide the analyses used for such comparisons. - Adjust its targets as needed based on its analysis.	BVES decisions of where to add covered conductor have always been based on risk reduction as all of BVES's service territory is designated as at least elevated risk by the CPUC HFTD maps. This is described in the 2023-2025 WMP. In this year's 2025 Update, BVES includes additional detail in Section 8.1 and where targets are adjusted based on analysis. BVES will also address this in the 2026 – 2028 Base WMP. BVES is currently using the Technosylva FireSight model, which integrates equipment failure and ignition probability data for assets with individual fire spread predictions to determine which assets are most likely to fail and cause an ignition, to determine where to install covered conductors.

Issue #	Title	Description	Required Progress	Status
BVES- 23-09	Radford Line Project	BVES's covered conductor replacement for the Radford Line has been delayed continuously since 2019.	In its 2025 Update, BVES must provide a status update on the completion of the Radford line project, including how it plans to expedite construction after receiving a permit from the USFS and provide a threshold date by which time the lack of a permit would delay completion of the project past 2023. If the permit from USFS continues to delay the project, BVES must provide an update on how it has been working with the USFS to expedite completion of the permit, including a description of all interactions BVES has had with USFS regarding permit issuance. Additionally, BVES must provide plans on how it will reduce impacts and delays for any similar hardening projects moving forward.	BVES obtained a "Letter to Proceed" from the United States Forest Service (USFS) on January 3, 2024. BVES anticipates commencing the project in May 2024, depending on the snowpack, and aims to complete the project by the end of 2024. BVES maintains a good working relationship with the USFS and expects shorter permitting processes in the future. Justification for the delay is reported in Section 7.1.3 of the WMP.
BVES- 23-10	Grid Hardening Pilots	BVES's 2023-2025 WMP lacks discussion of exploration, piloting, and monitoring of new technologies, such as DFA, EFD, and REFCL.	In its 2025 Update, BVES must: - Explain BVES's specific process for monitoring pilot programs being performed by IOUs, including BVES's plan and criteria on how and when to decide which technologies to select. This should include dates of meetings held in which BVES conferred with IOUs on piloted technologies, including specifics on which technologies were discussed. - Provide an update on BVES's assessments of technologies being explored by IOUs, including specifics on DFA, EFD, and REFCL. This should detail why and how BVES is moving forward with any such technologies. Details should include analysis of feasibility and barriers for implementation, and risk mitigation benefits.	In the WMP Joint IOU Covered Conductor (CC) workshops, BVES has participated in discussions on new technologies such as Distribution Fault Anticipation (DFA), Early Fault Detection (EFD), and Rapid Earth Fault Current Limiters (REFCL). It was determined that REFCL applies to a grounded system only, and BVES 34KV subtransmission is a delta system. Therefore, REFCL is not compatible with the BVES grid system. In Mid-2022 BVES initiated a pilot program to install an Online Diagnostic System, which uses continuous monitor sensors to provide usable grid insight information that is measured, reported, and documented on one of its circuits. BVES Online Diagnostic System is similar to DFA and EFD. In 2023, BVES installed the Online Diagnostic System onto two (2) circuits and in 2024 BVES plans to install the system on an additional circuit. The system is designed to pinpoint irregularities, which may be due to degrading/imminent hardware failures, as well as identify objects such as vegetation contacting the lines. This will assist

Issue #	Title	Description	Required Progress	Status
				BVES in rapidly inspecting potential problems before they develop into an ignition source and is described in Section 8.1.
				In late 2023, BVES conducted a second pilot program to install cameras on poles that continuously monitor the pole and associated lines in partnership with Green Grid Inc. BVES installed cameras on two (2) different circuits. This program is described in Section 8.3.3.1. As WMP Joint IOU Covered Conductor (CC) workshops continues in 2024, BVES will be part of
				the discussion with other IOUs on other new technologies that may be suitable to BVES system.
BVES- 23-11	Covered Conductor Inspections and Maintenance	BVES does not incorporate checks in its inspection programs that address failures specific to covered conductor. BVES must tailor its inspection practices to address failure modes specifically related to covered conductor.	In its 2025 Update, BVES must discuss how failure modes unique to covered conductor will be accounted for in its inspections, including water intrusion, splice covers, and surface damage. If BVES determines any or all the above changes are unnecessary, then it must discuss how its current inspection and maintenance processes address covered conductor failure modes.	BVES has not had any covered conductor failures in the system. As part of WMP Joint IOU Covered Conductor (CC) workshops Southern California Edison (SCE), Pacific Gas & Electric (PG&E) and San Diego Gas & Electric (SDG&E) performed testing of CC, to better understand the advantages, operative failure mode, and current state of knowledge regarding CC. Testing scenarios were conducted that included various contact-from-object, wire down, system strength, flammability, water ingress, environmental, service life, UV exposure, degradation, and mechanical strength tests. The testing results are provided in the 2023-2025 WMP Joint IOU Covered Conductor Working Group Report. BVES continues to follow all GO 165 requirements for patrol and detailed inspections. Additionally, BVES exceeds the minimum requirements by including other inspection: 3rd party ground patrol, Unmanned Aerial Vehicles (UAV) Thermography, UAV HD Photography/Videography and LiDAR inspection. For additional details, please refer to section 8.1.3 Asset Inspections of BVES 2023-2025 WMP.

Issue #	Title	Description	Required Progress	Status
				As WMP Joint IOU Covered Conductor (CC) workshops continues in 2024, BVES will be part of the discussion with other IOUs on other IOU best practice on cover conductor inspection and maintenance.
				BVES has participated in discussions with cable manufacturers on the techniques to handle water intrusion and will develop a strategy for this issue.
				BVES assesses that the following inspections, which BVES conducts are able to detect covered conductor issues:
				GO 165 detailed inspections,
				GO 165 patrol (BVES Inspector),
				UAV thermography,
				UAV photography/video, and
				3rd party GO 165 patrol (independent contractor).
			BVES must strive to adopt a risk-based approach by increasing the frequency of detailed inspections on assets that have the highest risk according to its risk model. In its 2025 Update, BVES must either: - Outline a plan to update its detailed inspections in higher risk areas, including:	BVES assesses its existing detailed inspection program adequately addresses risk in the 2023-2025 WMP cycle. BVES will be revising its detailed inspection program in its next WMP cycle by increasing the frequency of detailed inspections on assets that have the highest risk according to its risk model.
BVES- 23-12	Distribution Detailed Inspection	BVES performs the minimum frequency of detailed inspections required by GO 95 and	 An analysis for determining the updated frequency for performing detailed inspections. 	BVES currently performs Detailed Inspections which meets GO 165 requirements based on the time since the previous inspection.
	Frequency	165.	 A description of how it prioritized higher risk areas based on risk analysis and risk model output, including HFTD Tier 3 lands. 	All circuits in the BVES service area are in the HFTD Tier 2 or Tier 3 area and they all have fundamentally similar wildfire risk profiles. Currently, the highest risk factor is the amount of bare wire remaining for each circuit. All 34Kv bare wire in the BVES territory is expected to be replaced with
			o Updates to inspection checklists to account for equipment or	covered wire by 2026. All higher risk BVES's 4K bare wire is scheduled to be replaced with covered conductor by 2031.

Issue #	Title Description	Required Progress	Status
Issue #	Title Description	configurations that may pose greater wildfire risk. A plan to obtain any needed workforce for performing more frequent inspections. OR Provide information demonstrating that its existing inspection program adequately addresses risk, including an analysis of the number of Level 1 or critical issues found during detailed inspections.	As covered wire is installed, the relative risk for each circuit changes significantly. Therefore, risk calculations for circuits change on a yearly basis. For example, the Radford line pre installation of covered conductor has a risk factor of 31,215 and is the highest risk circuit. Post installation of covered conductor on the Radford line will have a risk factor of 522 and will not be in the top 10 of the highest risk circuits. Therefore, as the amount of covered wire installed in the BVES circuits becomes relatively significant, BVES will be revising its detailed inspection program in its next WMP cycle by increasing the frequency of detailed inspections on assets that have the highest risk according to its risk model. For this WMP cycle, BVES will continue scheduling detailed inspections in accordance with GO 165 requirements. It should be noted that in addition to performing the scheduled detailed inspections per GO 165, BVES conducts the following inspections on every above ground circuit (all above ground assets) each year: • GO 165 patrol (BVES Inspector), • LiDAR survey, • UAV thermography, • UAV photography/video, and • 3rd party GO 165 patrol (independent contractor). Analysis of all inspection findings in 2023 (GO 165 detailed inspections, GO 165 patrol (BVES Inspector), LiDAR survey, UAV thermography, UAV photography/video, and 3rd party GO 165 patrol) indicated that:

Issue #	Title	Description	Required Progress	Status
				 There were no Level 1 findings or critical issues found during detailed inspections performed per GO 165,
				The UAV photography inspection uncovered one Level 1 finding, which was immediately remediated, and
				No other inspections conducted yielded any other Level 1 findings or critical issues.
BVES- 23-13	Asset Inspection QA/QC Program	BVES has not implemented a QA/QC process for its asset inspections.	In its 2025 Update, BVES must demonstrate progress toward implementing a comprehensive QA/QC process for each of its asset inspections (detailed, patrol, UAV thermography, UAV photography/video, LiDAR, intrusive pole, and substation inspections), including plans and timelines for the following: - Written procedures for performing each type of inspection. - Standardized inspection forms to be used and completed during each inspection. - A system for timestamping and filing photographs taken during inspections. - Written procedures for performing QA/QC on each type of inspection. In its 2025 Update, BVES must also include the following information regarding its asset inspection QA/QC activities: - Inspection sample size. - Verification methods. - Pass rate targets. - Actual pass rates.	Written procedures are available for all types of inspections. They are specific written procedures or procedures written as part of our signed contracts with our vendors. BVES's inspection practices are detailed in Section 8.1.3 of the 2025 WMP Update. BVES has finalized written QA/QC procedures for the following inspections: Detailed, patrol, UAV thermography, UAV photography/video, LiDAR, intrusive pole, and substation. Standardized inspection forms for each type of inspection are completed during each inspection. Where appropriate, photographs are taken during inspections with timestamping and stored in the IRestore, MyRowKeeper or Milsoft software systems.

Issue #	Title	Description	Required Progress	Status
BVES- 23-14	Non-Exempt Surge Arrester Replacement	BVES states that it is replacing lightning/surge arresters that are not exempted by CAL FIRE with CAL FIRE-exempt arresters¹ but BVES does not provide targets or procedural updates in its 2023-2025 WMP.	In its 2025 Update, BVES must provide its plan to identify and replace currently installed non-exempt lightning arresters with exempt lightning arresters. The plan should include: The progress made identifying currently installed non-exempt arresters. - The number of non-exempt arresters replaced in 2023 A set target for number of arresters to replace in 2024 and 2025 The estimated completion date of the project Adding associated numeric targets as necessary.	In 2023, BVES replaced 43 non-exempt lightning/surge arresters with exempt lightning/surge arresters. Beginning in 2024, BVES plans to replace 58 non-exempt lightning/surge arresters per year with exempt lightning/surge arresters. The project aims to replace the remaining 173 non-exempt lightning/surge arresters by the end of 2026.
BVES- 23-15	Reliability Impacts of Fast Trip Settings	BVES has not demonstrated an understanding of the reliability impacts of using fast trip settings.	In its 2025 Update, BVES must provide the following information for 2023 outages that occurred while fast curve settings were enabled in a spreadsheet format: - Circuit impacted by outage Circuit segment impacted by outage Cause of outage (in line with QDR Table 6 drivers) Number of customers impacted Number of customers impacted belonging to vulnerable populations (such as customers with access and functional needs and Medical Baseline customers) Duration of outage Response time to outage.	BVES operates its devices with fast curve trip settings (fast curve as provided by the manufacture) for all operations all the time. The need for BVES to operate in fast curve trip settings is related to ensuring the reliability of the BVES system due to the Southern California Edison (SCE) power supply lines. If BVES were to adjust its fast curve trip settings to slower trip curve settings and therefore, allow SCE devices to trip prior to BVES devices, then when a localized fault in the BVES system occurs, it would cause a loss of supply to the entire service area instead of limiting it to the group of assets associated with the localize fault. Such a scenario would significantly increase the size of outages in the BVES service area for small localized faults. It should be noted to avoid confusion, unlike other utilities that have established "fast trip settings" (or enhanced powerline safety settings), BVES is using the fast curve setting recommended by the device

¹ Data Request OEIS-P-WMP_2023-BVES-004 (Question1), (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=54419&shareable=true, accessed September 20, 2023).



Issue #	Title	Description	Required Progress	Status			
BVES- 23-16	Vegetation Management Quality Control Personnel Qualifications.	In its response to BVES-22-16, Vegetation Management Quality Control Personnel Qualifications, BVES has not demonstrated that it has considered alternative staffing for its vegetation management quality control checks. BVES has not shown that it has properly identified trained and qualified personnel for its vegetation quality control checks.	In its 2026-2028 Base WMP, BVES must: - Present a plan to improve the utility vegetation management-related qualifications of its QC check personnel Explain and provide the decision-making process on its consideration of alternative staffing for its vegetation management QC checks, including consideration of employing or contracting with certified arborists or registered professional foresters to perform these checks.	BVES added additional qualifications for its Vegetation Management Quality Control Personnel as discussed in Section 8.2 of the 2023-2025 Base WMP. BVES management is trained on Vegetation Quality Control inspections, and members of the management team have been conducting these inspections for years. As a result, BVES will continue having management provide Vegetation Management Quality Control checks. In 2023, BVES added the requirement that a certified arborist must conduct 100% QC checks of tree trimming activities in the BVES territory.			
	Situational Awareness and Forecasting						
BVES- 23-17	Weather Station Maintenance and Calibration	BVES reports having over 20 weather stations in its network that collect weather data. ² Frequent calibration and maintenance of weather stations is critical for ensuring accurate, reliable, and high-quality data. As BVES performs its annual weather station maintenance and calibration, Energy Safety will need BVES to report on the following to verify the integrity of the data collected from its weather station network.	- Continue to maintain and keep a log of all the annual maintenance calibration for each weather station, including the station name, location, and conducted maintenance. The log must include the length of time from initiation of a repair ticket to completion and the corrective maintenance performed to bring the station back into functioning condition In its 2025 Update, provide documentation indicating the number of weather stations that received their annual calibration and the number of stations that were unable to undergo annual	BVES has developed a plan in which two (2) to three (3) weather stations per month will undergo maintenance and calibrations. This plan allows for timely maintenance activities, while maximizing the number of operating weather stations. Sensors will be replaced as specified by the vendor. Records will be maintained that include: - The station name and location The reason for the inability to conduct maintenance and/or calibration The length of time since the last maintenance and calibration The number of attempted but incomplete maintenance or calibration events for these stations in each calendar year. Additionally, all the weather station's data will be reviewed monthly. If a weather station is not operating properly, it will undergo non-scheduled maintenance.			

² BVES's 2023-2025 WMP, page 234.

Issue #	Title	Description	Required Progress	Status
			maintenance and/or calibration due to factors such as remote location, weather conditions, customer refusals, environmental concerns, and safety issues. This documentation must include: o The station name and location. o The reason for the inability to conduct maintenance and/or calibration. o The length of time since the last maintenance and calibration. o The number of attempted but incomplete maintenance or calibration events for these stations in each calendar year.	
BVES- 23-18	Fire Potential Index	BVES reports that it is developing and implementing a FPI through a third-party vendor by the end of 2023. However, BVES's 2023-2025 WMP lacks any specific details concerning the development, validation, or implementation of its future FPI.	In its 2025 Update, BVES must: - Specify the inputs and the data sources used to calculate its FPI. - Describe the methodology and threshold values for varying fire potential levels. - Describe how the FPI will be used in its daily operations and how it plans to validate the predictions measuring against actual wildfire events. - Discuss any planned improvements or future updates on its FPI.	BVES received an FPI model developed by Technolsyva tailored to the BVES service area in December 2023 and is now utilizing it on a daily basis as of Q1 2024. In Section 6.2.2 and 8.3 of the 2023-2025 Base WMP, BVES includes significant details about the FPI, including: - The inputs and the data sources used to calculate its FPI Descriptions of the methodology and threshold values for varying fire potential levels Details on how BVES will be using the FPI in its daily operations and how it plans to validate the predictions measuring against actual wildfire events Planned improvements or future updates on its FPI.