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A Subsidiary of American States Water Company

Via Electronic Mail

July 22, 2024

Shannon O'Rourke
Deputy Director, Electrical Infrastructure Directorate
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Docket #2023-2025-WMPs

**RE: Notice on Errata for Bear Valley Electric Service, Inc. 2025 Wildfire Mitigation Plan Update**

Dear Deputy Director Shannon O'Rourke:

In accordance with the Office of Energy Infrastructure Safety's ("Energy Safety") Notice on Errata for Bear Valley Electric Service, Inc. 2025 Wildfire Mitigation Plan Update ("Notice") issued on July 15, 2024, Bear Valley Electric Service, Inc. ("BVES") hereby submits its revised 2025 Wildfire Mitigation Plan ("WMP") Update and revised 2023-2025 Base WMP (both redlined and clean versions) to correct the substantive and non-substantive errors identified in Appendix A of Energy Safety's Notice.

Sincerely,

/s/ Paul Marconi
Paul Marconi
President, Treasurer, & Secretary
Paul.Marconi@bvesinc.com

# Bear Valley Electric Service 2025 Wildfire Mitigation Plan Update

Revision 2


*Submitted by:*

Bear Valley Electric Service, Inc.

July 22, 2024

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# 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 spans[3] 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.[7]*

*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 BVES's wildfire risk mitigation practices. The model is completed; however, as of the date of this filing the model is not fully implemented. BVES staff are completing training by DIREXYON on the model and BVES will need to set certain modifier values and risk weightings before the model is fully operational. BVES expects the model to be in full operation by Q4 2024. Updates to Appendix B including the addition of the DIREXYON's White Paper have been made as part of BVES Risk Modeling updates. The following paragraphs describe the new risk model.

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;
2. Contact from vegetation ignition likelihood;
3. Contact by object ignition likelihood;
4. 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.

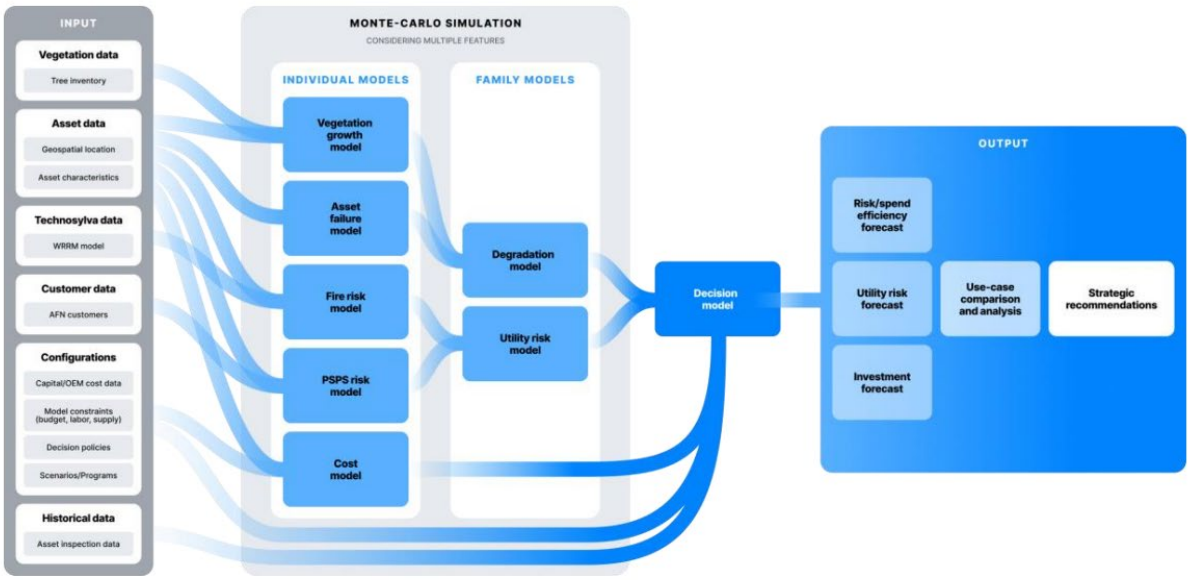


**Figure 1.1.2-1: DIREXYON Phase 1 Schematic for BVES Fire Risk Assessment**

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 result 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 for managing 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 Technosylva 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. Updates to Appendix B including the addition of the Technosylva's White Paper have been made as part of BVES Risk Modeling updates.

## 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 non-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. There were no risk ranking changes to circuits.

# 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,[9] 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 | 2025 Submitted Target | 2025 Updated Target | 2025 % Change | Meets Requirements | WMP Section |
|---|---|---|---|---|---|---|---|
| Covered Conductor Installation | GD_1 | Circuit miles of lines replace | 12.9 | 5.1 | 60% | Yes | Section 8.1.1.2, Table 8-3; pg. 116 |
| Distribution pole replacements and reinforcements | GD_4 | Number of Poles Replaced | 200 | 100 | 50% | Yes | Section 8.1.1.2, Table 8-3; pg. 116 |
| Bear Valley Solar Project | GD_10 | Preform Necessary Project Action | No Action | 100% Project Completion | 100% | Revised Project Timeline | 8.1.2.7 Table 8-2 & Table 8-3 |
| Energy Storage Project | GD_11 | Preform Necessary Project Action | No Action | 100% Project Completion | 100% | Revised Project Timeline | 8.1.2.7 Table 8-2 & Table 8-3 |
| Lake Substation Project | GD_23 | Project Milestones for Lake Substation | 100% Project Completion | No Action | 100% | Revised Project Timeline | 8.1.2.8 Table 8-3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Village Substation Project | GD_24 | Project Milestones for Village Substation | 100% Project Completion | No Action | 100% | Revised Project Timeline | 8.1.2.8 Table 8-3 |

- GD_1 Covered Conductor Installation: The target for 2025 was adjusted from 12.9 to 5.1 circuit miles. 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. Therefore, 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_4 Distribution Pole Replacements and Reinforcements: The target of replacing 200 poles in 2025 was adjusted to 100 pole replacements. In 2023, BVES had targeted to replace 200 poles but replaced 309 poles. BVES will stick to its 2024 projection and replace 200 poles during the year. Therefore, by adjusting the 2025 target to 100 poles, BVES will reach its three-year goal of replacing 600 poles.

## 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 |
| Bear Valley Solar Project | Preform Necessary Project Action | GD_10 | Originally scheduled for completion until after 2025 | Updated expected completion date of 2025 | Revised Project Timeline | 8.1.2.7 Table 8-2 & Table 8-3 |
| Energy Storage Project | Preform Necessary Project Action | GD_11 | Originally scheduled for | Updated expected | Revised Project Timeline | 8.1.2.7 Table 8-2 & Table 8-3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | completion until after 2025 | completion date of 2025 | | |

## 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 | 2025 Percent Change | 2025 Projected CAPEX | 2025 Projected OPEX | 2025 Adjusted CAPEX | 2025 Adjusted OPEX |
|---|---|---|---|---|---|---|---|
| Grid Design, Operations, and Maintenance | Covered conductor installation | GD_1 | 60% | 4655.694 | 0 | 1840.623 | 0 |
| Grid Design, Operations, and Maintenance | Distribution pole replacements and reinforcements | GD_4 | 72% | 2789.368 | 0 | 788.838 | 0 |
| Grid Design, Operations, and Maintenance | Microgrids | GD_10 | 100% | 0 | 0 | 13578.409 | 0 |
| Grid Design, Operations, and Maintenance | Microgrids | GD_11 | 100% | 0 | 0 | 10342.009 | 0 |
| Grid Design, Operations, and Maintenance | Other technologies and systems not listed above | GD_22 | 100% | 0 | 0 | 1777.479 | 0 |
| Grid Design, Operations, and Maintenance | Other technologies and systems not listed above | GD_23 | 100% | 2065.781 | 0 | 0 | 0 |
| Grid Design, Operations, and Maintenance | Other technologies and systems not listed above | GD_24 | 100% | 1144.054 | 0 | 0 | 0 |

**Financials in the table are represented in thousands.*

Justification for changes in explanations for GD_10, GD_11, and GD_22 are:

**GD_10 Bear Valley Solar Project**

BVES has filed the necessary application to the CPUC for the Bear Valley Solar Project and initiated CEQA. The project was not originally scheduled for completion until after 2025. Now that the application and permitting process has progressed, it is possible the project will be completed in 2025; therefore, the spending is now listed under the 2025 Adjusted Capital. The Bear Valley Solar Project is listed in Table 8-2 Grid Design, Operations and Maintenance Objectives (10-year Plan) of the approved 2023-2025 Base WMP.

**GD-11 Energy Storage Project**

BVES has filed the necessary application to the CPUC for the Energy Storage Project and initiated CEQA. The project was not originally scheduled for completion until after 2025. Now that the application and permitting process has progressed, it is possible the project will be completed in 2025; therefore, the spending is now listed under the 2025 Adjusted Capital. The Energy Storage Project is listed in Table 8-2 Grid Design, Operations and Maintenance Objectives (10-year Plan) of the approved 2023-2025 Base WMP.

**GD_22 Partial Safety and Technical Upgrades to Maltby Substation**

Partial Safety and Technical Upgrades to Maltby Substation were originally scheduled for completion in 2024. The substation upgrades have been rescheduled to 2025 due to long lead times for delivery of substation equipment; therefore, the spending is now listed under the 2025 Adjusted Capital. This project is listed in Table 8-1 Grid Design, Operations and Maintenance Objectives (3-year Plan) of the approved 2023-2025 Base WMP.

# 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]

BVES has provided the below table to outline its quarterly targets (Q2 and Q3) for 2025 asset and vegetation inspection.

BVES made updates to its GIS data following submission and approval of its 2023-2025 Base WMP and determined that the overhead system contains 205 circuit miles not 211 circuit miles used in the approved submission. As part of the 2025 WMP Update BVES has adjusted "End of Year Target 2025" for the circuit mile based Inspection programs (GD_26 – GD_30 & VM_2 – VM_5). BVES also identified that VM_6 had incorrect units to its targets in its 2023-2025 Base WMP Submission so it was updated to reflect the appropriate recording units and "End of Year Target 2025" value.

| 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 / 3rd 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%* |

# 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 imaging 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 of 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 provided 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.

# 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.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 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:<br>- How it prioritizes PSPS risk in its risk-based decisions, including trade-offs between wildfire risk and PSPS risk.<br>- 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. | Until the recent introduction of WFA-E, WRRM (renamed FireSight), FPI and DIREXYON models, BVES had limited capability to independently provide PSPS Risk based models. In addition, BVES has never experienced conditions to initiate a PSPS event. Therefore, the main factor for determining risk mitigation selection has been wildfire risk.<br><br>Since BVES has been running FPI on a daily basis, BVES has noticed a very high correlation of relative risk from Wildfire and PSPS. Once BVES fully incorporates the DIREXYON model in Q4 of 2024, BVES will evaluate both wildfire and PSPS based models to determine Utility Risk. Utility risk will then |

| Issue # | Title | Description | Required Progress | Status |
|---|---|---|---|---|
| | | | | be used as a tool for determining risk mitigation selection.<br><br>For each initiative planning decision, BVES recognizes that while risk models have the highest impact on the initiative decision making, there are also other factors that may also affect initiative prioritization, including resource constraints in terms of labor, equipment/material, and capital availability; permitting process; engineering planning and design; and sequencing of related or interconnected initiatives. Risk mitigation impacts will be quantified using risk spend ratio to the most practicable extent.<br><br>Progress on this ACI resulted in reportable updates to the 2023-2025 WMP. See Section 6 (throughout) and Appendix B. |
| 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:<br>- Inclusion of climate change forecasts in consequence modeling.<br>- Inclusion of community vulnerability in consequence modeling.<br>- Utility vegetation management for wildfire safety.<br>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 participates in 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 is represented in Table 8-63 in the WMP.<br><br>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 in 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.<br><br>BVES views the working groups and collaboration efforts as extremely beneficial. While the sharing of best practices from the collaboration efforts has not led to any reportable updates or changes to its 2023-2025 Base WMP, the best practices will help inform the 2026-2028 WMP. |

| Issue # | Title | Description | Required Progress | Status |
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| | | | | Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| 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 8 of the 2023-2025 WMP, BVES 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.<br><br>Progress on this ACI resulted in reportable updates to the 2023-2025 WMP. See Section 8.2.1.3 and Tables 8-63 and 11-2. |
| 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:<br>- 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, schematics, and any explanations that describe collaboration with a risk modeling vendor.<br>- 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.<br>- 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. | BVES provides asset information to the Technosylva and DIREXYON models. BVES also provides local information such as LiDAR inspection results and weather station parameters. Technosylva models provide fire risk (for various consequences), and fire spread and behavior. DIREXYON model provides ignition risk, PSPS risk and utility risk taking as inputs to the Technosylva models (WFA-E and FPI) and takes into account BVES asset conditions, customers locations and type (e.g., vulnerable customers, etc.).<br><br>BVES staff performs all of the risk modeling utilizing the vendor supplied models. BVES provides final approval of grid information and modeling changes.<br><br>Mitigation selection and PSPS decisions are made by BVES personnel using the modeling information as part of the decision process. As an example, BVES runs daily models to determine Fire and PSPS risk. This information is then shared daily with the BVES management team.<br><br>Both DIREXYON and Technosylva provide detailed training on how to understand and operate each |

| Issue # | Title | Description | Required Progress | Status |
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| | | | | model. BVES holds a monthly meeting with the modeling groups to help BVES better understand advances in the modeling protocols and address any questions that BVES has regarding modeling.<br><br>Progress on this ACI resulted in reportable updates to the 2023-2025 WMP. See Section 6 and Appendix B. |
| 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 the state of its model maturity. | 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. This includes changes to vendor risk modeling software to improve operational or planning risk analyses made or implemented since last year's 2023-2025 Base WMP submission. The Technosylva WRRM (renamed FireSight) model was implemented in February 2023 and was initially used to create a baseline showing the state of BVES's service area with no WMP grid hardening initiatives. WRRM was then run taking into account WMP grid hardening initiatives as of November 2023. These updated maps for sub-transmission and distribution systems are an additional tool used in the prioritization of grid hardening efforts.<br><br>BVES has also included the updated graphics as outputted by the WRRM Model as an attachment (BVES-23-06.pdf) to the 2025 WMP Update file submitted to Energy Safety.<br><br>Progress on this ACI resulted in reportable updates to the 2023-2025 WMP. See Sections 6.4.2, 6.5, Table 6-7, and Footnote 1. |
| Grid Design, Operation, and Maintenance | | | | |

| Issue # | Title | Description | Required Progress | Status |
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| 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:<br>- 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.<br>- Adjust its targets as needed based on its analysis. | BVES, as required by the November 6, 2023, Revision Notice, will 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 (renamed FireSight) and will adjust its targets as needed based on its analysis.<br><br>BVES is currently using the Technosylva WRRM model (renamed FireSight), 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.<br><br>BVES will provide a detailed update on this issue as part of its 2026-2028 Base WMP submission.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| 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:<br>- Demonstrate how it compares alternative initiatives, mitigations, and combinations of mitigations to covered conductor, and provide the analyses used for such comparisons.<br>- Adjust its targets as needed based on its analysis. | BVES, as required by the November 6, 2023, Revision Notice, will demonstrate how it compares alternative initiatives, mitigations, and combinations of mitigations to covered conductor, and provide the analyses used for such comparisons and will adjust its targets as needed based on its analysis.<br><br>BVES is currently using the Technosylva WRRM model (renamed FireSight), 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.<br><br>BVES will provide a detailed update on this issue as part of its 2026-2028 Base WMP submission.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |

| Issue # | Title | Description | Required Progress | Status |
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| 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 commenced the project in May 2024, and aims to complete the project by the end of 2024. BVES has established a good working relationship with the USFS.<br><br>BVES included the USFS Permit as an attachment (MTD903A_BVESConstructionPermit2023-28-FD.pdf) to the 2025 WMP Update file submitted to Energy Safety.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 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:<br>- 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.<br>- 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 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).<br><br>It was determined that REFCL applies to a grounded system only, and BVES 34KV sub-transmission is a delta system. Therefore, REFCL is not compatible with the BVES grid system.<br><br>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 |
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| | | | | BVES in rapidly inspecting potential problems before they develop into an ignition source and is described in Section 8.1.<br><br>In late 2023, BVES conducted a second new technology pilot program (iSIU) to install a camera system 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 pilot program is described in Section 8.3.3.1.<br><br>Progress on this ACI resulted in a reportable update to the 2023-2025 WMP. See Section 8.3.3.1. |
| 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. | To date, BVES has not experienced any covered conductor failures in its 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 modes, 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.<br><br>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.<br><br>As WMP Joint IOU Covered Conductor (CC) workshops continue in 2024, BVES will be part of the discussion with other IOUs on other IOU best |

| Issue # | Title | Description | Required Progress | Status |
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| | | | | practice on cover conductor inspection and maintenance.<br><br>BVES has conducted discussions with cable manufacturers on the techniques to handle water intrusion and will develop a strategy for this issue. Additionally, in discussions with manufactures, they recommend that periodic visual inspections that are normally conducted on overhead systems (such as patrols and detailed inspections) should include looking for significant discoloration, bubbling and separation of the outer coating from the covered conductor cable, and signs of abrasions that penetrate through the outer coating. BVES will update its patrol and detailed inspection checklists to in these items.<br><br>BVES assesses that the following inspections, which BVES conducts are able to detect covered conductor issues:<br>• GO 165 detailed inspections,<br>• GO 165 patrol (BVES Inspector),<br>• UAV thermography,<br>• UAV photography/video, and<br>• 3rd party GO 165 patrol (independent contractor).<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| BVES-23-12 | Distribution Detailed Inspection Frequency | BVES performs the minimum frequency of detailed inspections required by GO 95 and 165. | 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:<br>- Outline a plan to update its detailed inspections in higher risk areas, including:<br>o An analysis for determining the updated frequency for performing detailed inspections. | 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.<br><br>BVES currently performs Detailed Inspections as specified in GO 165.<br><br>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 on |

| Issue # | Title | Description | Required Progress | Status |
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| | | | ○ A description of how it prioritized higher risk areas based on risk analysis and risk model output, including HFTD Tier 3 lands.<br>○ Updates to inspection checklists to account for equipment or configurations that may pose greater wildfire risk.<br>○ A plan to obtain any needed workforce for performing more frequent inspections.<br><br>OR<br><br>○ 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. | each circuit. All 34Kv bare wire in the BVES territory is expected to be replaced with covered wire by the end of 2026. All higher risk BVES's 4K bare wire is scheduled to be replaced with covered conductor by 2031.<br><br>As covered wire is installed, the relative risk for each circuit changes significantly. Therefore, risk values for circuits are changing on an annual basis. For example, the Radford Line pre-installation of covered conductor has a risk value of 31,215 risk units (per the fire safety matrix) and is the highest risk circuit. After installation of covered conductor on the Radford Line, it will have a risk value of 522 risk units and will no longer 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 to increase the frequency of detailed inspections on bare wire assets that have the highest risk according to the risk model. This risk-based approach to scheduling detailed inspections will be included in the 2026-2028 WMP.<br><br>For the remainder of this WMP cycle, BVES will continue scheduling detailed inspections in accordance with GO 165 requirements.<br><br>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:<br>• GO 165 patrol (BVES Inspector),<br>• LiDAR survey,<br>• UAV thermography,<br>• UAV photography/video, and<br>• 3rd party GO 165 patrol (independent contractor). |

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| | | | | 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:<br>• There were no Level 1 findings or critical issues found during detailed inspections performed per GO 165,<br>• The UAV photography inspection uncovered one Level 1 finding, which was immediately remediated, and<br>• No other inspections conducted yielded any other Level 1 findings or critical issues.<br>Therefore, BVES assesses that for this WMP cycle, its current Detailed Inspection scheduling policy adequately addresses risk.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| 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:<br>- Written procedures for performing each type of inspection.<br>- Standardized inspection forms to be used and completed during each inspection.<br>- A system for timestamping and filing photographs taken during inspections.<br>- Written procedures for performing QA/QC on each type of inspection.<br>In its 2025 Update, BVES must also include the following information regarding its asset inspection QA/QC activities: | Written procedures are available for each type of asset inspection conducted. These are in the form of specific written procedures or procedures written as part of scope of work in the signed contracts with contractors who perform the inspections.<br><br>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.<br><br>BVES also conducts various annual asset inspections on the entire overhead distribution system, including GO-165 Patrol Inspections, third-party ground patrols, LiDAR surveys, UAV photography/videography, UAV thermography and GO-165 Detailed Inspections per its inspection plan. BVES meticulously cross-checks the inspection results to ensure the quality of each type of assessment. If any discrepancies arise between |

| Issue # | Title | Description | Required Progress | Status |
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| | | | - Inspection sample size.<br>- Verification methods.<br>- Pass rate targets.<br>- Actual pass rates. | inspection methods, the inspector and/or the inspection methodology undergo investigation. Any potential findings discovered during these inspections are promptly investigated and remediated if necessary.<br><br>Where appropriate, photographs are taken during inspections with timestamping and stored in the IRestore, MyRowKeeper or Milsoft software systems.<br><br>BVES has also included the QA/QC Procedures for the above listed inspection types as an attachment (BVES-23-13.pdf) to the 2025 WMP Update file submitted to Energy Safety.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| 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 arresters[1] 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.<br><br>- The number of non-exempt arresters replaced in 2023.<br>- A set target for number of arresters to replace in 2024 and 2025.<br>- The estimated completion date of the project.<br>- Adding associated numeric targets as necessary. | In 2023, BVES replaced 43 non-exempt lightning/surge arresters with exempt lightning/surge arresters.<br><br>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.<br><br>Progress on this ACI did not resulted in a reportable update to the 2023-2025 WMP. |
| BVES-23-15 | Reliability Impacts of Fast Trip Settings | BVES has not demonstrated an understanding of the | In its 2025 Update, BVES must provide the following information for 2023 outages that | 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 |

[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).

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| | | reliability impacts of using fast trip settings. | occurred while fast curve settings were enabled in a spreadsheet format:<br><br>- Circuit impacted by outage.<br>- Circuit segment impacted by outage.<br>- Cause of outage (in line with QDR Table 6 drivers).<br>- Number of customers impacted.<br>- Number of customers impacted belonging to vulnerable populations (such as customers with access and functional needs and Medical Baseline customers).<br>- Duration of outage.<br>- Response time to outage.<br>- Customer minutes of interruption. | 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.<br><br>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 manufacturer. This is different than setting the trip values to a fixed set current value at one tenth of a second. The manufacturer’s fast curve settings are a traditional time-current curve in shape.<br><br>BVES has captured the following outage information for its system. As noted above BVES’s entire service territory operates with its protective curve settings set to fast curve trip settings.<br>- Circuit impacted by outage.<br>- Circuit segment impacted by outage.<br>- Cause of outage (in line with QDR Table 6 drivers).<br>- Number of customers impacted.<br>- Number of customers impacted belonging to vulnerable populations (such as customers with access and functional needs and Medical Baseline customers).<br>- Duration of outage.<br>- Response time to outage.<br>- Customer minutes of interruption. |

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| | | | | This data has been provided as an attachment (BVES-23-15.xlsx) to the 2025 WMP Update file submitted to Energy Safety.<br><br>BVES has held discussions with Pacific Gas and Electric (PG&E) subject matter experts regarding how PG&E sets their fast trip settings. BVES plans on engaging an expert consultant in 2024 to perform an overall evaluation of the BVES device setting policy and provide recommendations to improve settings to reduce the probability of ignitions.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| Vegetation Management and Inspections | | | | |
| 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:<br><br>- Present a plan to improve the utility vegetation management-related qualifications of its QC check personnel.<br>- 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, as required by the November 6, 2023, Revision Notice, will present a plan to improve the utility vegetation management-related qualifications of its QC check personnel and 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.<br><br>BVES added additional qualifications for its Vegetation Management Quality Control Personnel. In 2023, BVES added the requirement that a certified arborist must conduct 100% QC checks of tree trimming activities in the BVES territory.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |
| Situational Awareness and Forecasting | | | | |

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| 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. | In its 2025 Update, BVES must:<br>- 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.<br>- 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 maintenance and/or calibration due to factors such as remote location, weather conditions, customer refusals, environmental concerns, and safety issues. This documentation must include:<br>o The station name and location.<br>o The reason for the inability to conduct maintenance and/or calibration.<br>o The length of time since the last maintenance and calibration.<br>o The number of attempted but incomplete maintenance or | BVES has developed a plan in which two (2) to three (3) weather stations per month 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 are maintained that include:<br>- The station name and location.<br>- The reason for the inability to conduct maintenance and/or calibration.<br>- The length of time since the last maintenance and calibration.<br>- The number of attempted but incomplete maintenance or calibration events for these stations in each calendar year.<br><br>Additionally, all the weather station's data will be reviewed monthly. If a weather station is not operating properly, it will undergo non-scheduled corrective maintenance.<br><br>These records have been provided as an attachment (BVES-23-17.xlsx) to the 2025 WMP Update file submitted to Energy Safety.<br><br>Progress on this ACI did not result in a reportable update to the 2023-2025 WMP. |

[2] BVES's 2023-2025 WMP, page 234.

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| | | | 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:<br>- Specify the inputs and the data sources used to calculate its FPI.<br>- Describe the methodology and threshold values for varying fire potential levels.<br>- Describe how the FPI will be used in its daily operations and how it plans to validate the predictions measuring against actual wildfire events.<br>- Discuss any planned improvements or future updates on its FPI. | BVES received an FPI model developed by Technosylva 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 of the 2023-2025 Base WMP, BVES includes significant details about the FPI, including:<br><br>- The inputs and the data sources used to calculate its FPI.<br>- Descriptions of the methodology and threshold values for varying fire potential levels.<br>- 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.<br>- Planned improvements or future updates on its FPI.<br><br>As a result of implementing FPI, BVES is in the process of updating its PSPS Procedures and BVES expects the procedures to be finalized and approved no later than June 15, 2024. These procedures are being tested in a PSPS tabletop exercise and a full scale exercise.<br><br>Progress on this ACI resulted in reportable updates to the 2023-2025 WMP. See Sections 6.1.1, 6.2.2, 6.3, 8.1.8.1, 8.3.6, 9.2, Figure 6-10, BVES Table 8-4, and Appendix B. |

# Attachment 1: BVES-23-06.pdf

## BVES Progress on Area for Continued Improvement BVES-23-06

WRRM 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. Figure 1 and Figure 2 below shows the expected risk unmitigated for BVES's service territory.

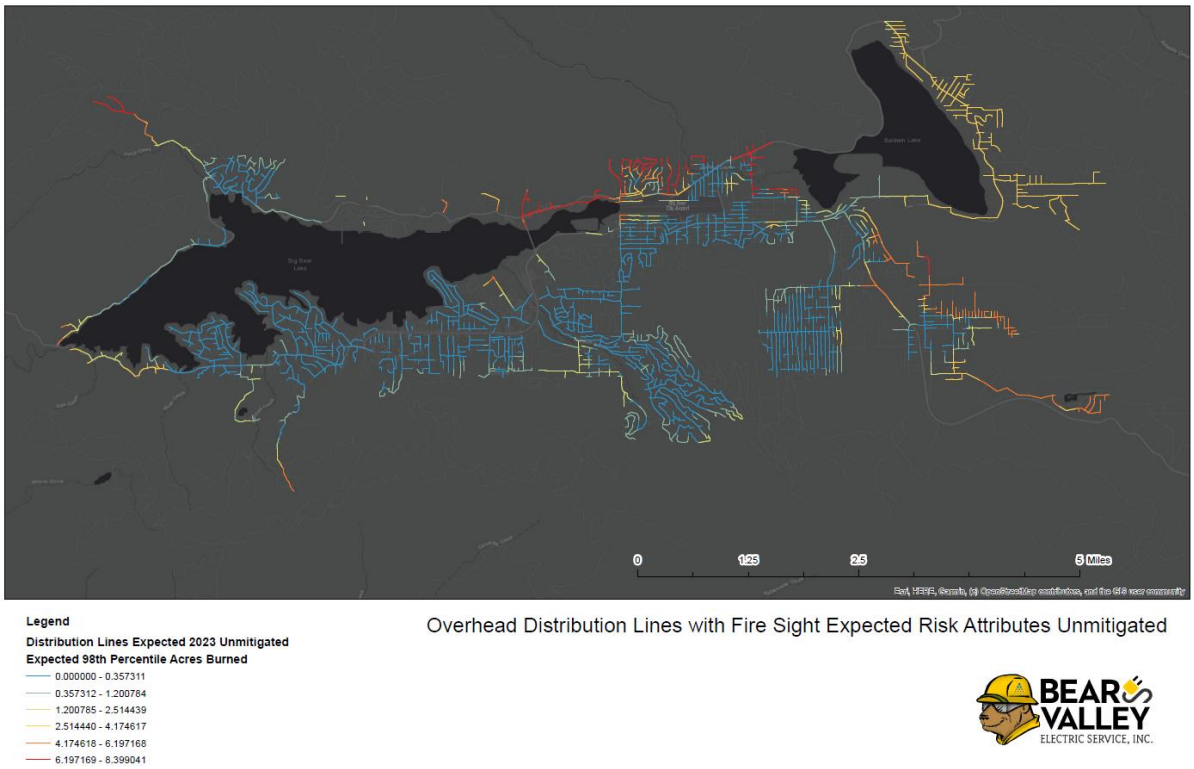



**Figure 1 – Overhead Distribution Line Unmitigated Risk**

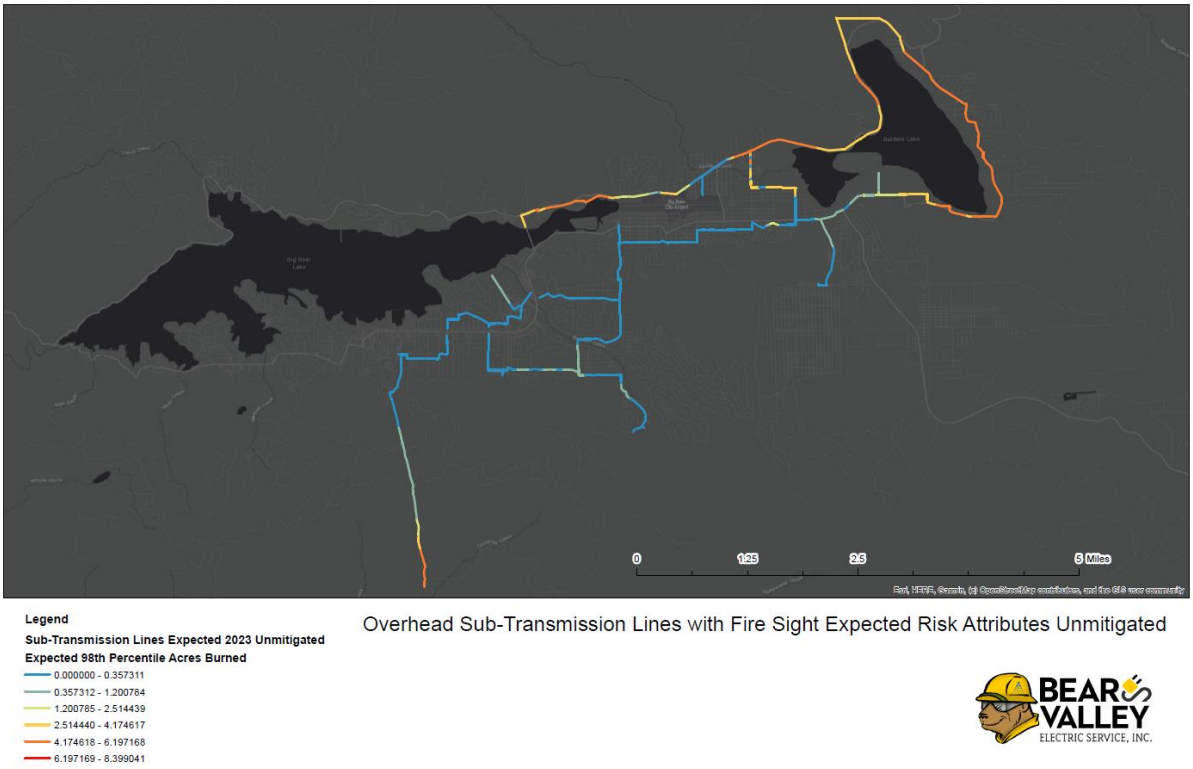



**Figure 2 – Overhead Sub-Transmission Line Unmitigated Risk**

After evaluation of the base case, Technosylva then ran the WRRM model taking into account WMP grid hardening initiatives through November 2023. These updated maps for sub-transmission and distribution are the primary tool used in the prioritization of grid hardening efforts and can be seen in Figure 3 and 4 below. While the updated WRRM information is assisting in mitigation selection, planning, and scheduling, it is important to note other drivers exist that cannot be factored into the model such as permitting, access to materials, and resources.

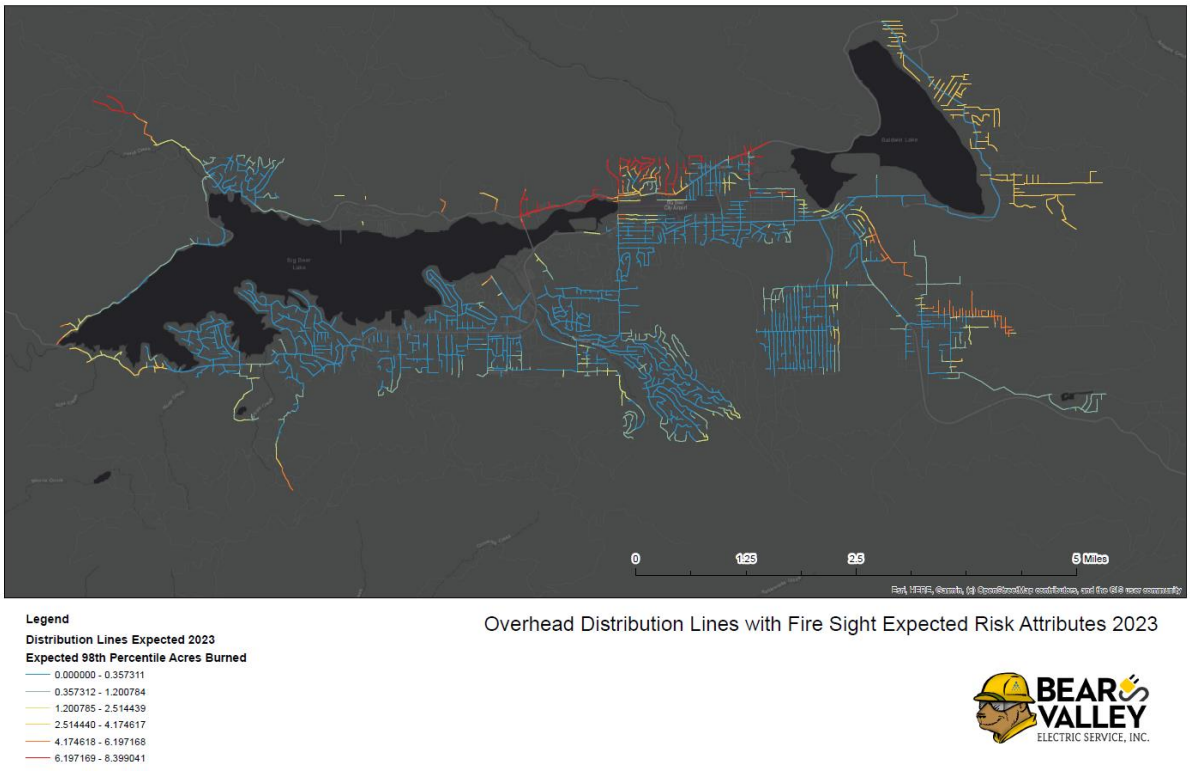



**Figure 3 – Overhead Distribution Line Expected Risk**

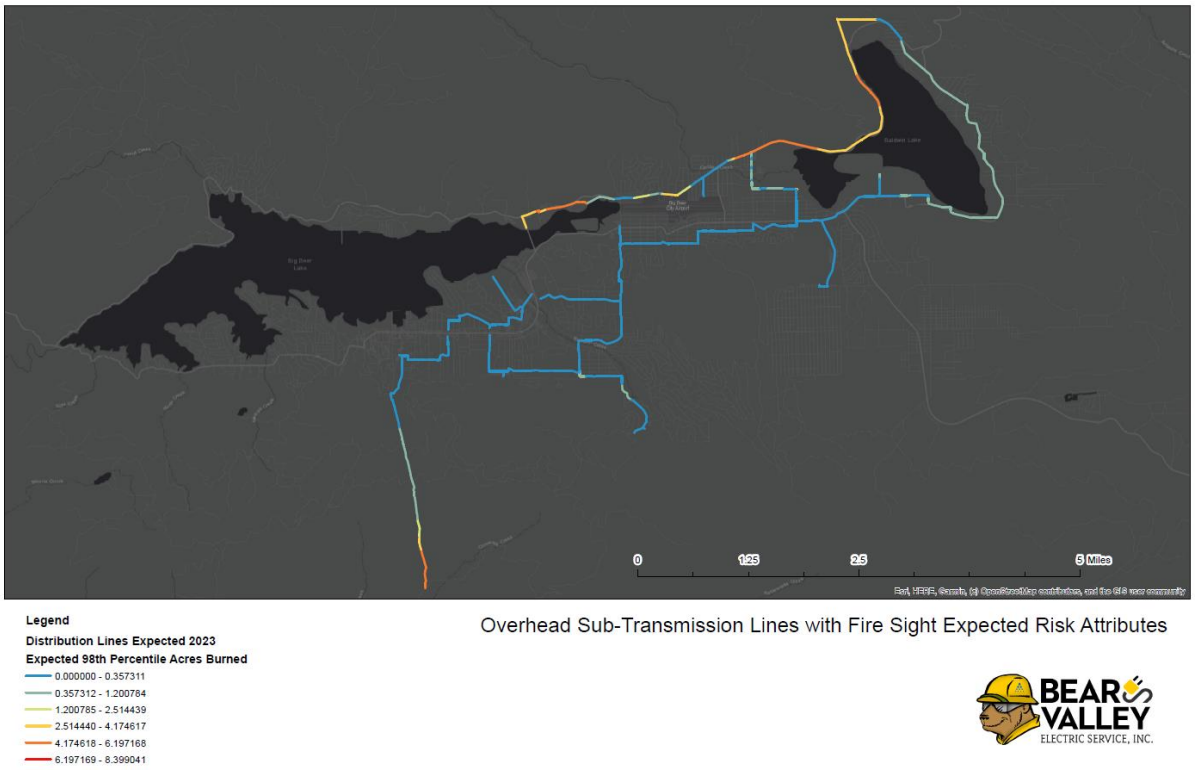



**Figure 4 – Overhead Sub-Transmission Line Expected Risk**

# Attachment 2: MTD903A_BVESConstructionPermit2023-28-FD.pdf

Authorization ID: **MTD903A** FS-2700-4 (09/2020)
Contact Name: **BEAR VALLEY ELECTRIC SERVICE** OMB 0596-0082
Expiration Date: **12/31/2028**
Use Code: **512**

**U.S. DEPARTMENT OF AGRICULTURE**
**FOREST SERVICE**
**SPECIAL USE PERMIT**

Authority: ORGANIC ADMINISTRATION ACT June 4, 1897

**BEAR VALLEY ELECTRIC SERVICE** of **PO BOX 1547 BIG BEAR LAKE CA UNITED STATES 92315** (hereinafter "the holder") is authorized to use or occupy National Forest System lands in the SAN BERNARDINO NATIONAL FOREST or unit of the National Forest System, subject to the terms of this special use permit (the permit).

This permit covers or 2.64 miles in the, T. 2 N., R. 1 E., SAN BERNARDINO MERIDIAN, ("the permit area"), as shown on the map attached as Appendix A. This and any other appendices to this permit are hereby incorporated into this permit.

**This permit issued for the purpose of:**

**Construction Permit for the Radford Line Covered Conductor Replacement Project on the Bear Valley Electric Service Radford Electrical Line on the Mountaintop Ranger District. The Bear Valley Electric Company will replace approximately 79 wood power poles, 14,772' of 3 conductor 35 kilovolt (KV) open wire conductor, and 2,368' of 4 conductor 4 kilovolt (KV) open wire conductor that are within an existing power line that extends from Village Drive in the City of Big Bear Lake on the north to Radford Camp Road in the San Bernardino National Forest on the south, a distance of approximately 2.64 miles. The project will replace open wire high voltage conductors with covered conductors throughout, and wood power poles with ductile iron poles within the San Bernardino National Forest to better withstand high winds and wildfires.**

**Construction must progress in accordance with the stipulations included in the appendices attached to this permit.**

**Appendix A: Map and Diagram of Authorized Activities**
**Appendix B: Project Description as Operating Plan**
**Appendix C: Project Record and SHBO Consultation with design features**

## I. GENERAL TERMS

**A. AUTHORITY**. This permit is issued pursuant to the ORGANIC ADMINISTRATION ACT June 4, 1897 and 36 CFR Part 251, Subpart B, as amended, and is subject to their provisions.

**B. AUTHORIZED OFFICER.** The authorized officer is the Forest or Grassland Supervisor, a District Ranger, or the Station, Institute, or Area Director with delegated authority pursuant to Forest Service Manual 2700.

**C. TERM**. This permit shall expire at midnight on **12/31/2028**. Expiration of this permit shall not require notice, a decision document, or any environmental analysis or other documentation from the date of issuance.

**D. CONTINUATION OF USE AND OCCUPANCY**. This permit is not renewable. Prior to expiration of this permit, the holder may apply for a new permit for the use and occupancy authorized by this permit. Applications for a new permit must be submitted at least 6 months prior to expiration of this permit.

Issuance of a new permit is at the sole discretion of the authorized officer. At a minimum, before issuing a new permit, the authorized officer shall ensure that (1) the use and occupancy to be authorized by the new permit is consistent with the standards and guidelines in the applicable land management plan; (2) the type of use and occupancy to be authorized by the new permit is the same as the type of use and occupancy authorized by this permit; and (3) the holder is in compliance with all the terms of this permit. The authorized officer may prescribe new terms when a new permit is issued.

**E. AMENDMENT.** This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms that may be required by law, regulation, directive, the applicable forest land and resource management plan, or projects and activities implementing the land management plan pursuant to 36 CFR Part 218.

**F. COMPLIANCE WITH LAWS, REGULATIONS, AND OTHER LEGAL REQUIREMENT**S. In exercising the rights and privileges granted by this permit, the holder shall comply with all present and future federal laws and regulations and all present and future state, county, and municipal laws, regulations, and other legal requirements that apply to the permit area, to the extent they do not conflict with federal law, regulation, or policy. The Forest Service assumes no responsibility for enforcing laws, regulations, and other legal requirements that fall under the jurisdiction of other governmental entities.

**G. NON-EXCLUSIVE USE.** The use or occupancy authorized by this permit is not exclusive. The Forest Service reserves the right of access to the permit area, including a continuing right of physical entry to the permit area and the authorized facilities and improvements for inspection, monitoring, or any other purpose consistent with any right or obligation of the United States under any law or regulation. The Forest Service reserves the right to allow others to use the permit area in any way that is not inconsistent with the holder's rights and privileges under this permit, after consultation with all parties involved. Except for any restrictions that the holder and the authorized officer agree are necessary to protect the installation and operation of authorized temporary improvements, the lands and waters covered by this permit shall remain open to the public for all lawful purposes.

**H. ASSIGNABILITY.** This permit is not assignable or transferable.

**I. TRANSFER OF TITLE TO THE IMPROVEMENTS.**

1. Notification of Transfer. The holder shall notify the authorized officer when a transfer of title to all or part of the authorized improvements is planned.

2. Transfer of Title. Any transfer of title to the improvements covered by this permit shall result in termination of the permit. The party who acquires title to the improvements must submit an application for a permit. The Forest Service is not obligated to issue a new permit to the party who acquires title to the improvements. The authorized officer shall determine that the applicant meets requirements under applicable federal regulations.

**J. CHANGE IN CONTROL OF THE BUSINESS ENTITY.**

1. Notification of Change in Control. The holder shall notify the authorized officer when a change in control of the business entity that holds this permit is planned.

(a). In the case of a corporation, control is an interest, beneficial or otherwise, of sufficient outstanding voting securities or capital of the business so as to permit the exercise of managerial authority over the actions and operations of the corporation or election of a majority of the board of directors of the corporation.

(b). In the case of a partnership, limited partnership, joint venture, or individual entrepreneurship, control is a beneficial ownership of or interest in the entity or its capital so as to permit the exercise of managerial authority over the actions and operations of the entity.

(c). In other circumstances, control is any arrangement under which a third party has the ability to exercise management authority over the actions or operations of the business.

2. Effect of Change in Control. Any change in control of the business entity as defined in paragraph 1 of this clause shall result in termination of this permit. The party acquiring control must submit an application for a special use permit. The Forest Service is not obligated to issue a new permit to the party who acquires control. The authorized officer shall determine whether the applicant meets the requirements established by applicable federal regulations.

**II. IMPROVEMENTS**

**A. LIMITATIONS ON USE.** Nothing in this permit gives or implies permission to build or maintain any structure or facility or to conduct any activity, unless specifically authorized by this permit. Any use not specifically authorized by this permit must be proposed in accordance with 36 CFR 251.54 or 251.61. Approval of such a proposed use through issuance of a new permit or permit amendment is at the sole discretion of the authorized officer.

**B. DRAWINGS.** All drawings for development, layout, construction, reconstruction, or alteration of improvements in the permit area, as well as revisions to those drawings, must be prepared by a professional engineer, architect, landscape architect, or other qualified professional acceptable to the authorized officer. These drawings and drawing revisions must have written approval from the authorized officer before they are implemented. The authorized officer may require the holder to furnish as-built drawings, maps, or surveys upon completion of the work.

**C. CONSTRUCTION.** Any construction authorized by this permit shall commence by 01/01/2024 and shall be completed by 12/31/2028.

**III. OPERATIONS.**

**A. PERIOD OF USE.** Use or occupancy of the permit area shall be exercised at least 14 days each year.

**B. CONDITION OF OPERATIONS.** The holder shall maintain the authorized improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this permit. Standards are subject to periodic change by the authorized officer when deemed necessary to meet statutory, regulatory, or policy requirements or to protect national forest resources.

**C. USE OF NATIONAL FOREST SYSTEM ROADS AND NATIONAL FOREST SYSTEM TRAILS**. The holder's use of National Forest System roads and National Forest System trails shall comply with applicable requirements in 36 CFR Part 212, Subpart A; 36 CFR Part 261, Subpart A; and orders issued under 36 CFR Part 261, Subpart B. Motor vehicle use shall be consistent with designations made under 36 CFR Part 212, Subpart B, unless specifically provided otherwise in the operating plan. Over-snow vehicle use shall be consistent with designations made under 36 CFR Part 212, Subpart C, unless specifically provided otherwise in the operating plan.

**D. OPERATING PLAN**. The holder shall prepare and annually revise an operating plan. The operating plan shall be prepared in consultation with the authorized officer or the authorized officer's designated representative and shall cover all operations authorized by this permit. The operating plan shall outline steps the holder will take to protect public health and safety and the environment and shall include sufficient detail and standards to enable the Forest Service to monitor the holder's operations for compliance with the terms of this permit. The operating plan shall be submitted by the holder and

approved in writing by the authorized officer or the authorized officer's designated representative prior to commencement of operations and shall be attached to this permit as an appendix. Any operating plan revisions shall be submitted by the holder and approved in writing by the authorized officer or the authorized officer's designated representative before they are implemented. The authorized officer may require an annual meeting with the holder to discuss the terms of the permit or operating plan, annual use reports, or other concerns either party may have.

**E. MONITORING BY THE FOREST SERVICE.** The Forest Service shall monitor the holder's operations and reserves the right to inspect the permit area and authorized facilities and improvements at any time for compliance with the terms of this permit. The holder shall comply with inspection requirements deemed appropriate by the authorized officer. The holder's obligations under this permit are not contingent upon any duty of the Forest Service to inspect the permit area or authorized facilities or improvements. A failure by the Forest Service or other governmental officials to inspect is not a justification for noncompliance with any of the terms of this permit.

**F. CUTTING, DISPOSAL, AND PLANTING OF VEGETATION.** This permit does not authorize the cutting of trees, brush, shrubs, and other plants ("vegetation"). Vegetation may be cut, destroyed, or trimmed only after the authorized officer or the authorized officer's designated representative has approved in writing and marked or otherwise identified what may be cut, destroyed, or trimmed. The holder shall notify the authorized officer when approved cutting, destruction, or trimming of vegetation has been completed. The Forest Service shall determine in advance of felling the method of disposal of trees felled in the permit area that meet utilization standards. Disposal may be by sale or without charge per 36 CFR Part 223, as may be most advantageous to the United States. Debris from felling that does not meet utilization standards shall also be disposed of according to methods determined by the Forest Service. Planting of vegetation in the permit area must have prior written approval from the authorized officer.

## IV. RIGHTS AND LIABILITIES

**A. LEGAL EFFECT OF THE PERMIT**. This permit, which is revocable and terminable, is not a contract or a lease, but rather a federal license. The benefits and requirements conferred by this authorization are reviewable solely under the procedures set forth in 36 CFR 214 and 5 U.S.C. 704. This permit does not constitute a contract for purposes of the Contract Disputes Act, 41 U.S.C. 601. The permit is not real property, does not convey any interest in real property, and may not be used as collateral for a loan.

**B. VALID EXISTING RIGHTS.** This permit is subject to all valid existing rights. Valid existing rights include those derived under mining and mineral leasing laws of the United States. The United States is not liable to the holder for the exercise of any such right.

**C. ABSENCE OF THIRD-PARTY BENEFICIARY RIGHTS**. The parties to this permit do not intend to confer any rights on any third party as a beneficiary under this permit.

**D. NO WARRANTY OF ACCESS, SITE SUITABILITY, OR SERVICES.** This permit authorizes the use and occupancy of National Forest System lands by the holder for the purposes identified in this permit. The Forest Service does not make any express or implied warranty of access to the permit area, of the suitability of the permit area for the authorized uses, or for the furnishing of road or trail maintenance, water, fire protection services, search and rescue services, or any other services by a government agency, utility, association, or individual.

**E. RISK OF LOSS**. The holder assumes all risk of loss to the authorized improvements and all risk of loss of use and occupancy of the permit area, in whole or in part, due to public health and safety or environmental hazards. Loss to the authorized improvements and of use and occupancy of the permit area may result from but is not limited to theft, vandalism, fire and any fire-fighting activities (including prescribed burns), environmental contamination, avalanches, rising waters, winds, falling limbs or trees, and other forces of nature. If any authorized improvements are destroyed or substantially damaged, the

authorized officer shall conduct an analysis to determine whether the improvements can be safely occupied in the future and whether rebuilding should be allowed. If rebuilding is not allowed, this permit shall terminate. If the authorized officer determines that the permit area cannot be safely occupied due to a public health or safety or environmental hazard, this permit shall terminate. Termination under this clause shall not give rise to any claim for damages, including lost profits and the value of the improvements, by the holder against the Forest Service.

**F. DAMAGE TO UNITED STATES PROPERTY.** The holder has an affirmative duty to protect from damage the land, property, and other interests of the United States that are associated with the use and occupancy authorized by this permit. Damage includes but is not limited to destruction of or damage to National Forest System lands, fire suppression costs, and destruction of or damage to federally owned improvements.

1. The holder shall be liable for all injury, loss, or damage, including fire suppression costs, prevention and control of the spread of invasive species, and the costs of rehabilitation or restoration of natural resources, resulting from the holder's use and occupancy of the permit area. Compensation shall include but not be limited to the value of resources damaged or destroyed, the costs of restoration, cleanup, or other mitigation, fire suppression or other types of abatement costs, and all administrative, legal (including attorney's fees), and other costs. Such costs may be deducted from a performance bond required under clause IV.J.

2. The holder shall be liable for damage to all roads and trails of the United States caused by use of the holder or the holder's heirs, assignees, agents, employees, or contractors to the same extent as provided under clause IV.F.1, except that liability shall not include reasonable and ordinary wear and tear.

**G. HEALTH AND SAFETY.** The holder shall take all measures necessary to protect the health and safety of all persons affected by the use and occupancy authorized by this permit. The holder shall promptly abate as completely as possible and in compliance with all applicable laws and regulations any physical or mechanical procedure, activity, event, or condition existing or occurring in connection with the authorized use and occupancy during the term of this permit that causes or threatens to cause a hazard to the health or safety of the public or the holder's employees, agents, or contractors. The holder shall as soon as practicable notify the authorized officer of all serious accidents that occur in connection with these procedures, activities, events, or conditions. The Forest Service has no duty under the terms of this permit to inspect the permit area or operations of the holder for hazardous conditions or compliance with health and safety standards.

**H. ENVIRONMENTAL PROTECTION.**

1. Compliance with Environmental Laws. The holder shall in connection with the use and occupancy authorized by this permit comply with all applicable federal, state, and local environmental laws and regulations, including but not limited to those established pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. 9601 et seq., the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 et seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., the Oil Pollution Act, as amended, 33 U.S.C. 2701 et seq., the Clean Air Act, as amended, 42 U.S.C. 7401 et seq., the Toxic Substances Control Act, as amended, 15 U.S.C. 2601 et seq., the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, 7 U.S.C. 136 et seq., and the Safe Drinking Water Act, as amended, 42 U.S.C. 300f et seq.

2. Definition of Hazardous Material. For purposes of clause IV.H and section V, "hazardous material" shall mean (a) any hazardous substance under section 101(14) of CERCLA, 42 U.S.C. 9601(14); (b) any pollutant or contaminant under section 101(33) of CERCLA, 42 U.S.C. 9601(33); (c) any petroleum product or its derivative, including fuel oil, and waste oils; and (d) any hazardous substance, extremely hazardous substance, toxic substance, hazardous waste, ignitable, reactive or corrosive materials, pollutant, contaminant, element, compound, mixture, solution or substance that may pose a present or potential hazard to human health or the environment under any applicable environmental laws.

3. Oil Discharges and Release of Hazardous Materials. The holder shall immediately notify all appropriate response authorities, including the National Response Center and the authorized officer or the authorized officer's designated representative, of any oil discharge or of the release of a hazardous material in the permit area in an amount greater than or equal to its reportable quantity, in accordance with 33 CFR Part 153 and 40 CFR Part 302. For the purposes of this requirement, "oil" is as defined by section 311(a)(1) of the Clean Water Act, 33 U.S.C. 1321(a)(1). The holder shall immediately notify the authorized officer or the authorized officer's designated representative of any release or threatened release of any hazardous material in or near the permit area which may be harmful to public health or welfare or which may adversely affect natural resources on federal lands.

4. Remediation of Release of Hazardous Materials. The holder shall remediate any release, threat of release, or discharge of hazardous materials that occurs in connection with the holder's activities in the permit area, including activities conducted by the holder's agents, employees, or contractors and regardless of whether those activities are authorized under this permit. The holder shall perform remediation in accordance with applicable law immediately upon discovery of the release, threat of release, or discharge of hazardous materials. The holder shall perform the remediation to the satisfaction of the authorized officer and at no expense to the United States. Upon revocation or termination of this permit, the holder shall deliver the site to the Forest Service in compliance with all applicable laws and regulations and free and clear of contamination.

**I. INDEMNIFICATION OF THE UNITED STATES.** The holder shall indemnify, defend, and hold harmless the United States for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the holder in connection with the use or occupancy authorized by this permit. This indemnification provision includes but is not limited to acts and omissions of the holder or the holder's heirs, assigns, agents, employees, or contractors in connection with the use or occupancy authorized by this permit which result in (1) violations of any laws and regulations which are now or which may in the future become applicable; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and damages incurred by the United States; or (4) the release or threatened release of any solid waste, hazardous waste, hazardous materials, pollutant, contaminant, oil in any form, or petroleum product into the environment. The authorized officer may prescribe terms that allow the holder to replace, repair, restore, or otherwise undertake necessary curative actions to mitigate damages in combination with or as an alternative to monetary indemnification.

**J. BONDING**. The authorized officer may require the holder to furnish a surety bond or other security for any of the obligations imposed by the terms of this permit or any applicable law, regulation, or order.

**K. STRICT LIABILITY.** The holder shall be strictly liable (liable without proof of negligence) to the United States up to the limit specified in 36 CFR 251.56(d)(2), as amended, per occurrence for any injury, loss, or damage arising in tort under this permit. Liability in tort for injury, loss, or damage to the United States exceeding the prescribed amount of strict liability in tort shall be determined under the law of negligence.

**L. INSURANCE.** The holder shall furnish proof of insurance, such as a certificate of insurance, to the authorized officer prior to issuance of this permit and each year thereafter that this permit is in effect. The Forest Service reserves the right to review the insurance policy and require any changes needed to ensure adequate coverage of the United States in connection with the authorized use and occupancy. The holder shall send an authenticated copy of any insurance policy obtained pursuant to this clause to the authorized officer immediately upon issuance of the policy. Any insurance policies obtained by the holder pursuant to this clause shall include the United States as an additional insured in an endorsement to the policy, and the additional insured provision shall provide for insurance coverage for the United States as required under this clause and to the extent of the full limits of insurance available to the holder. The holder shall give 30 days prior written notice to the authorized officer of cancellation of or any modification to the insurance policy. The certificate of insurance, the authenticated copy of the insurance policy, and written notice of cancellation or modification of insurance policies should be sent to United States C/O San Bernardino National Forest, 602 S Tippecanoe Ave, San Bernardino, CA 92408. Minimum

amounts of coverage and other insurance requirements are subject to change at the sole discretion of the authorized officer on the anniversary date of this permit.

1. The holder shall have in force liability insurance covering losses, including those arising from strict liability, associated with the use or occupancy authorized by this permit arising from personal injury or death and third-party property damage in the minimum amount of $1,000,000 as a combined single limit per occurrence.

2. Depending on the holder's operations, the Forest Service may require the holder to demonstrate the availability of funds to address any release or threatened release of hazardous materials that may occur in connection with the holder's use or occupancy. Any requirements imposed would be established on a case-by-case basis by the authorized officer based on the degree of environmental risk from the holder's operations. The storage and use of normal maintenance supplies in nominal amounts generally would not trigger financial assurance requirements.

## V. RESOURCE PROTECTION

**A. WATER POLLUTION.** No waste or by-product shall be discharged into water in connection with the use and occupancy authorized by this permit except in full compliance with all applicable federal, state, and local environmental and other laws. Storage facilities for materials capable of causing water pollution, if accidentally discharged, shall be located so as to prevent any spillage into waters or channels leading into water except in full compliance with all applicable federal, state, and local environmental and other laws.

**B. SCENIC VALUES**. The holder shall protect the scenic values of the permit area and the adjacent land to the greatest extent possible during construction, operation, and maintenance of the authorized improvements.

**C. VANDALISM.** The holder shall take reasonable measures to prevent and discourage vandalism and disorderly conduct and when necessary shall contact the appropriate law enforcement officer.

**D. PESTICIDE USE.**

1. Authorized Officer Concurrence. Pesticides may not be used outside of buildings in the permit area to control pests, including undesirable woody and herbaceous vegetation (including aquatic plants), insects, birds, rodents, or fish without prior written concurrence of the authorized officer. Only those products registered or otherwise authorized by the U.S. Environmental Protection Agency and appropriate State authority for the specific purpose planned shall be authorized for use within areas on National Forest System lands.

2. Pesticide-Use Proposal. Requests for concurrence of any planned uses of pesticides shall be provided in advance using the Pesticide-Use Proposal (form FS-2100-2). Annually the holder shall, on the due date established by the authorized officer, submit requests for any new, or continued, pesticide usage. The Pesticide-Use Proposal shall cover a 12-month period of planned use. The Pesticide-Use Proposal shall be submitted at least 60 days in advance of pesticide application. Information essential for review shall be provided in the form specified. Exceptions to this schedule may be allowed, subject to emergency request and approval, only when unexpected outbreaks of pests require control measures which were not anticipated at the time a Pesticide-Use Proposal was submitted.

3. Safety Plan. Before applying pesticides in the permit area, the holder shall submit to the authorized officer a safety plan that includes, at a minimum, a precise statement of the treatment objectives; a description of the equipment, materials, and supplies to be used, including pesticide formulation, quantities, and application methods; a description of the lines of responsibility for project planning, project monitoring, and after-action review; a description of any necessary interagency coordination; a copy of the current Pesticide-Use Proposal for the permit; a description of the process by which treatment

effectiveness will be determined; and a spill plan, communications plan, security plan, and when required by applicable local requirements, a provision for prior notification to sensitive individuals.

4. Reporting. By September 30th annually, the holder shall submit to the authorized officer a written report of each pesticide application project completed during the previous 12-month period. The report shall contain information pertaining to the pesticide application projects as requested by the authorized officer.

5. Labeling, Laws, and Regulations. Label instructions and all applicable laws and regulations shall be strictly followed in the application of pesticides and disposal of excess materials and containers. No pesticide waste, excess materials, or containers shall be disposed of in any area administered by the Forest Service.

**E. ARCHAEOLOGICAL AND PALEONTOLOGICAL DISCOVERIES**. The holder shall immediately notify the authorized officer of all antiquities or other objects of historic or scientific interest, including but not limited to historic or prehistoric ruins, fossils, or artifacts discovered in connection with the use and occupancy authorized by this permit. The holder shall leave these discoveries intact and in place until otherwise directed by the authorized officer.

**F. NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA).** In accordance with 25 U.S.C. 3002(d) and 43 CFR 10.4, if the holder inadvertently discovers human remains, funerary objects, sacred objects, or objects of cultural patrimony on National Forest System lands, the holder shall immediately cease work in the area of the discovery and shall leave the discoveries intact and in place. The holder shall follow the applicable NAGPRA protocols for the undertaking provided in the NAGPRA plan of action or the NAGPRA comprehensive agreement; if there are no such agreed-upon protocols, the holder shall as soon as practicable notify the authorized officer of the discovery and shall follow up with written confirmation of the discovery. The activity that resulted in the inadvertent discovery may not resume until 30 days after the authorized officer certifies receipt of the written confirmation, if resumption of the activity is otherwise lawful, or at any time if a NAGPRA plan of action has been executed by the Forest Service following tribal consultation and any preconditions have been met.

**G. PROTECTION OF THREATENED AND ENDANGERED SPECIES, SENSITIVE SPECIES, AND SPECIES OF CONSERVATION CONCERN AND THEIR HABITAT.**

1. Threatened and Endangered Species and Their Habitat. The location of sites within the permit area needing special measures for protection of plants or animals listed as threatened or endangered under the Endangered Species Act (ESA) of 1973, 16 U.S.C. 1531 et seq., as amended, or within designated critical habitat shall be shown on a map in an appendix to this permit and may be shown on the ground. The holder shall take any protective and mitigation measures specified by the authorized officer as necessary and appropriate to avoid or reduce effects on listed species or designated critical habitat affected by the authorized use and occupancy. Discovery by the holder or the Forest Service of other sites within the permit area containing threatened or endangered species or designated critical habitat not shown on the map in the appendix shall be promptly reported to the other party and shall be added to the map.

2. Sensitive Species and Species of Conservation Concern and Their Habitat. The location of sites within the permit area needing special measures for protection of plants or animals designated by the Regional Forester as sensitive species or as species of conservation concern pursuant to FSM 2670 shall be shown on a map in an appendix to this permit and may be shown on the ground. The holder shall take any protective and mitigation measures specified by the authorized officer as necessary and appropriate to avoid or reduce effects on sensitive species or species of conservation concern or their habitat affected by the authorized use and occupancy. Discovery by the holder or the Forest Service of other sites within the permit area containing sensitive species or species of conservation concern or their habitat not shown on the map in the appendix shall be promptly reported to the other party and shall be added to the map.

**H. CONSENT TO STORE HAZARDOUS MATERIALS.** The holder shall not store any hazardous materials at the site without prior written approval from the authorized officer. This approval shall not be unreasonably withheld. If the authorized officer provides approval, this permit shall include, or in the case of approval provided after this permit is issued, shall be amended to include specific terms addressing the storage of hazardous materials, including the specific type of materials to be stored, the volume, the type of storage, and a spill or release prevention and control plan. Such terms shall be proposed by the holder and are subject to approval by the authorized officer.

## VI. LAND USE FEE AND DEBT COLLECTION

**A. LAND USE FEES.** The holder shall pay in advance an annual land use fee in accordance with the fee schedule for communications sites in Forest Service Handbook 2709.11, Chapter 90. The annual land use fee shall be adjusted annually using the Consumer Price Index-Urban (CPI-U).

**B. MODIFICATION OF THE LAND USE FEE.** The land use fee may be revised whenever necessary to reflect the market value of the authorized use or occupancy or when the fee system used to calculate the land use fee is modified or replaced.

**C. LAND USE FEE PAYMENTS.**

1. Crediting of Payments. Payments shall be credited on the date received by the deposit facility, except that if a payment is received on a non-workday, the payment shall not be credited until the next workday.

2. Disputed Land Use Fees. Land use fees are due and payable by the due date. Disputed land use fees, other than land use fees recalculated pursuant to an audit, must be paid in full. Adjustments will be made if dictated by an administrative appeal decision, a court decision, or settlement terms.

3. Late Payments

(a) Interest. Pursuant to 31 U.S.C. 3717 et seq., interest shall be charged on any land use fee amount not paid within 30 days from the date it became due. The rate of interest assessed shall be the higher of the Prompt Payment Act rate or the rate of the current value of funds to the United States Treasury (i.e., the Treasury tax and loan account rate), as prescribed and published annually or quarterly by the Secretary of the Treasury in the Federal Register and the Treasury Fiscal Requirements Manual Bulletins. Interest on the principal shall accrue from the date the land use fee is due.

(b) Administrative Costs. If the account becomes delinquent, administrative costs to cover processing and handling the delinquency shall be assessed.

(c) Penalties. A penalty of 6% per annum shall be assessed on the total amount that is more than 90 days delinquent and shall accrue from the same date on which interest charges begin to accrue.

(d) Termination for Nonpayment. This permit shall terminate if the holder fails to pay any land use fee, interest, or any other charges within 90 calendar days of the due date. The holder shall remain responsible for the delinquent charges.

4. Administrative Offset and Credit Reporting. Delinquent land use fees and other charges associated with this permit shall be subject to all rights and remedies afforded the United States pursuant to 31 U.S.C. 3711 et seq. and common law. Delinquencies are subject to any or all of the following:

(a) Administrative offset of payments due the holder from the Forest Service.

(b) If in excess of 90 days, referral to the United States Department of the Treasury for appropriate collection action as provided by 31 U.S.C. 3711(g)(1).

(c) Offset by the Secretary of the Treasury of any amount due the holder, as provided by 31 U.S.C. 3720 et seq.

(d) Disclosure to consumer or commercial credit reporting agencies.

5. Consolidated Payment. Payment of annual land use fees for up to 5 years shall be consolidated. The first consolidated payment shall be made on date first full payment is due, when the first full annual land use fee payment is due, and thereafter every 5 years from date first full payment is due, until this permit expires.

## VII. REVOCATION, SUSPENSION, AND TERMINATION

### A. REVOCATION AND SUSPENSION.

1. The authorized officer may revoke or suspend this permit in whole or in part:

(a) For noncompliance with federal, state, or local law;

(b) For noncompliance with the terms of this permit;

(c) For abandonment or other failure of the holder to exercise the privileges granted; or

(d) At the discretion of the authorized officer, for specific and compelling reasons in the public interest.

2. The authorized officer may revoke this permit at the request of the holder. Revocation at the request of the holder must be agreed to in writing by the authorized officer. As a condition of revocation of this permit at the request of the holder, the authorized officer has discretion to impose any terms deemed appropriate as provided for in this permit.

3. Prior to revocation or suspension, other than revocation at the request of the holder under clause VII.A.2 and immediate suspension under clause VII.B, the authorized officer shall give the holder written notice of the grounds for revocation or suspension and a reasonable period, typically not to exceed 90 days, to cure any noncompliance.

**B. IMMEDIATE SUSPENSION.** The authorized officer may immediately suspend this permit in whole or in part when necessary to protect public health or safety or the environment. The suspension decision shall be in writing. The holder may request an on-site review with the authorized officer's supervisor of the adverse conditions prompting the suspension. The authorized officer's supervisor shall grant this request within 48 hours. Following the on-site review, the authorized officer's superior shall promptly affirm, modify, or cancel the suspension.

**C. APPEALS AND REMEDIES.** Written decisions by the authorized officer relating to administration of this permit are subject to administrative appeal pursuant to 36 CFR Part 214, as amended. Revocation or suspension of this permit shall not give rise to any claim for damages by the holder against the Forest Service.

**D. TERMINATION.** This permit shall terminate when by its terms a fixed or agreed upon condition, event, or time occurs without any action by the authorized officer. Examples include but are not limited to expiration of the permit by its terms on a specified date and, in the case of a permit issued to a business entity, termination upon change of control of the business entity. Termination of this permit shall not require notice, a decision document, or any environmental analysis or other documentation. Termination of this permit is not subject to administrative appeal and shall not give rise to any claim for damages by the holder against the Forest Service.

**E. RIGHTS AND RESPONSIBILITIES UPON REVOCATION OR TERMINATION WITHOUT ISSUANCE OF A NEW PERMIT.** Upon revocation or termination of this permit without issuance of a new permit, the holder shall remove all structures and improvements, except those owned by the United States, within a reasonable period prescribed by the authorized officer and shall restore the site to the satisfaction of the authorized officer. If the holder fails to remove all structures and improvements within the prescribed period, they shall become the property of the United States and may be sold, destroyed, or otherwise disposed of without any liability to the United States. However, the holder shall remain liable for all costs associated with their removal, including costs of sale and impoundment, cleanup, and restoration of the site.

**F. CONTINUATION OF OBLIGATIONS AND LIABILITIES BEYOND TERMINATION OR REVOCATION.** Notwithstanding the termination or revocation of this permit, its terms shall remain in effect and shall be binding on the holder and the holder's personal representative, successors, and assignees until all the holder's obligations and liabilities accruing before or as a result of termination or revocation of this permit have been satisfied.

## VIII. MISCELLANEOUS PROVISIONS

**A. MEMBERS OF CONGRESS.** No member of or delegate to Congress or resident commissioner shall benefit from this permit either directly or indirectly, except to the extent the authorized use provides a general benefit to a corporation.

**B. CURRENT ADDRESSES.** The holder and the Forest Service shall keep each other informed of current mailing addresses, including those necessary for billing and payment of land use fees.

**C. SUPERIOR CLAUSES.** If there is a conflict between any of the preceding printed clauses and any of the following clauses, the preceding printed clauses shall control.

**D. SURVEY AND MANAGE SPECIES AND THEIR HABITAT** The survey and manage standards and guidelines were established in the 1994 Northwest Forest Plan amendments to all Forest Service land management plans in western Oregon and Washington and northern California, as amended by the January 2001 Record of Decision (2001 ROD). The list of survey and manage species in the 2001 ROD, for which the standards and guidelines apply, has been amended and is subject to periodic amendment by the Forest Service. The holder shall take any protective and mitigation measures specified by the authorized officer as necessary and appropriate to avoid or reduce effects on survey and manage species or their habitat affected by the authorized use and occupancy. The location of sites within the area occupied by survey and manage species or their habitat shall be shown on a map in an appendix to this permit and may be shown on the ground. Discovery by the holder or the Forest Service of other sites within the permit area containing survey and manage species or their habitat not shown on the map in the appendix shall be promptly reported to the other party and shall be added to the map.

**THIS PERMIT IS ACCEPTED SUBJECT TO ALL ITS TERMS.**

BEFORE THIS PERMIT IS ISSUED TO AN ENTITY, DOCUMENTATION MUST BE PROVIDED TO THE AUTHORIZED OFFICER OF THE AUTHORITY OF THE SIGNATORY FOR THE ENTITY TO BIND IT TO THE TERMS OF THIS PERMIT.

ACCEPTED:

12-18-2023

JON PECCHIA, BEAR VALLEY ELECTRIC SERVICE SIGNATURE DATE

APPROVED:

FREDDIE DUNCAN Digitally signed by FREDDIE DUNCAN
Date: 2024.01.03 10:51:46 -08'00'

FREDDIE DUNCAN
DISTRICT RANGER DATE
Mountaintop Ranger District
San Bernardino National Forest
USDA Forest Service

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond, to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. Response to this collection of information is mandatory. The authority to collect the information is the Organic Administration Act, 16 U.S.C. 551. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

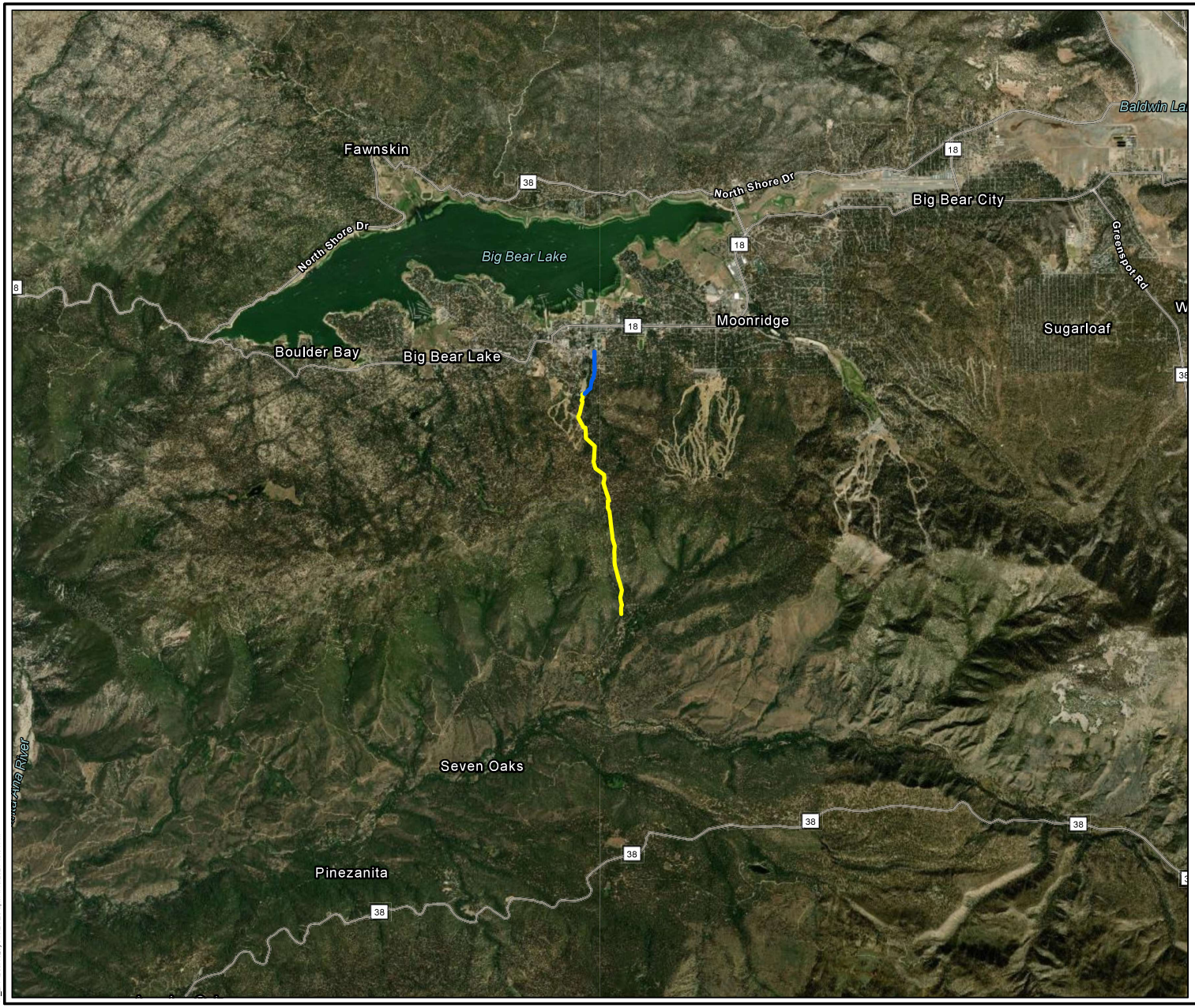
In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

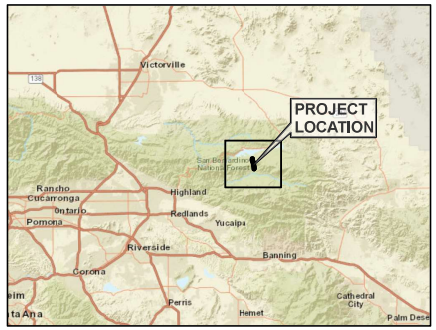
Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TYY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.




**LEGEND:**

Radford 34Kv Powerline

- Segment 1
- Segment 2

## Appendix A: Maps

N

0 1 2 Miles

**BEAR VALLEY ELECTRIC SERVICE**
**RADFORD POWER POLE REPLACEMENT PROJECT & UNDERGROUND ALTERNATIVE**

**Proposed Project Site and Vicinity**

Bear Valley Electric Service | ARCADIS

FIGURE 1

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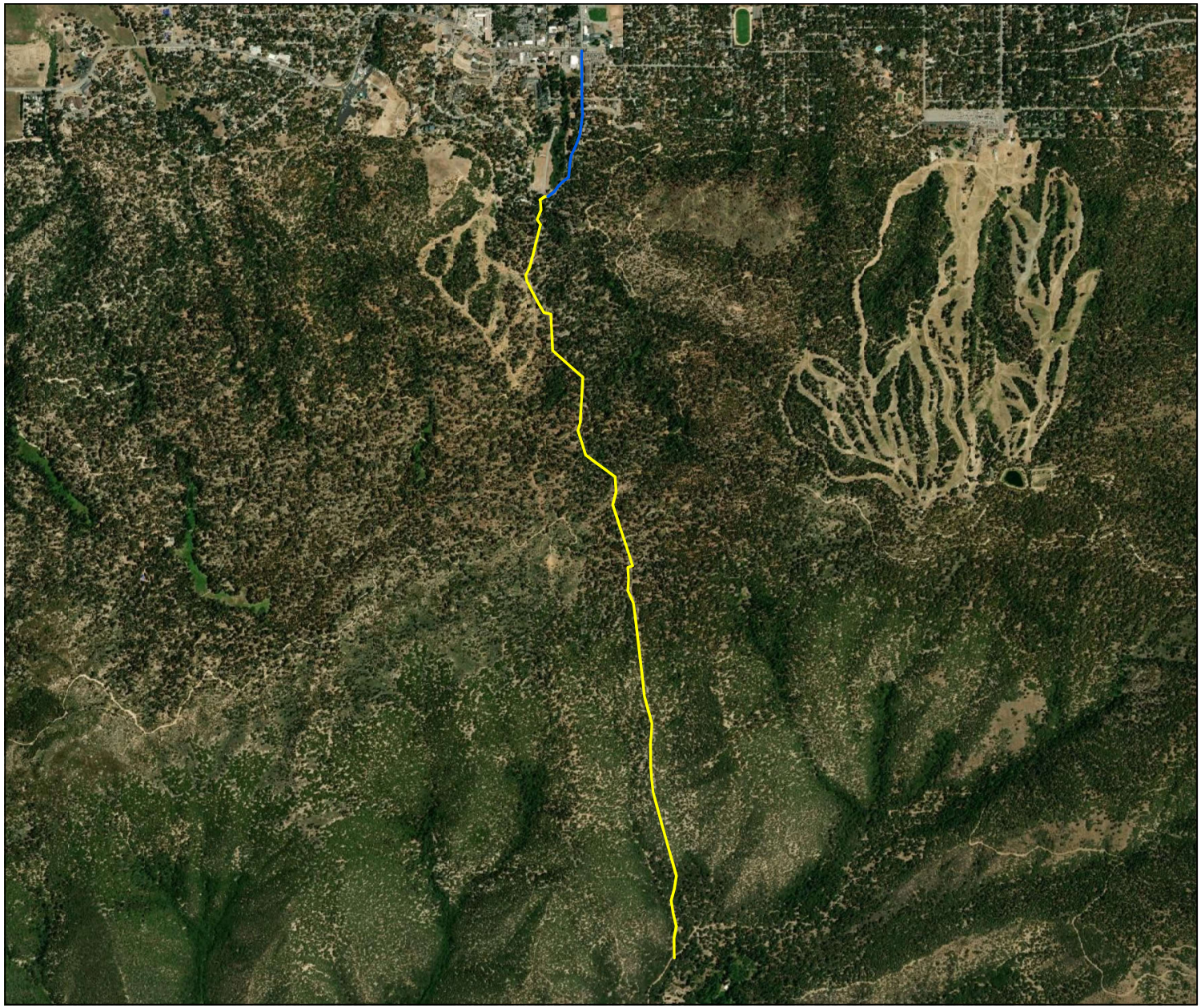

**LEGEND:**

- Segment 1 - Overhead Installation
- Segment 2 - Overhead Installation

0 1,000 2,000 Feet

**BEAR VALLEY ELECTRIC SERVICE**
**RADFORD POWER POLE REPLACEMENT PROJECT & UNDERGROUND ALTERNATIVE**

**Proposed Project**

Bear Valley Electric Service | ARCADIS

**FIGURE 2**

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## Appendix B: Radford Overhead Power Line - Project Description

The Bear Valley Electric Company will replace approximately 79 wood power poles, 14,772' of 3 conductor 35 kilovolt (KV) open wire conductor, and 2,368' of 4 conductor 4 kilovolt (KV) open wire conductor that are within an existing power line that extends from Village Drive in the City of Big Bear Lake on the north to Radford Camp Road in the San Bernardino National Forest on the south, a distance of approximately 2.64 miles. The project will replace open wire high voltage conductors with covered conductors throughout, and wood power poles with ductile iron poles within the San Bernardino National Forest to better withstand high winds and wildfires.

*Village Area*

Power poles extend within the existing street right-of way along the east side of Knickerbocker Drive from Village Drive south to approximately 400 feet south of Seneca Trail. At this point the overhead power lines cross to the west side of Knickerbocker Drive and continue south in the street right-of-way to the northeast corner of the intersection of Cameron Drive at Pine Knot Avenue. At the Cameron Drive and Pine Knot Avenue intersection the power line extends south across Cameron Drive and Cherry Lane into the San Bernardino National Forest (Addressed Below). The total distance of power line in the Village Area from Village Drive to Cameron Drive is approximately 2,300', or a distance of approximately 0.43 miles.

The existing new wood power poles from Village Drive to Cameron Drive at Pine Knot Avenue within the city will remain. Eight (8) existing wood poles would be replaced with new higher strength wood poles due to the additional strain of the 35KV and 4KV covered conductors. In addition to the pole replacement, the existing 35KV and 4KV conductors and arms would be replaced with fiberglass arms and polymer insulator with covered (Avian) hoods.

*National Forest Area*

The existing wood power poles that extend from Cameron Drive at Pine Knot Avenue south through the San Bernardino National Forest to Radford Camp Road would be replaced with ductile iron poles approximately 2.21 miles. The replacement ductile iron poles would be set in the ground within five feet of the existing wood poles. Ground crews would replace approximately 10 power poles in the San Bernardino National Forest that have suitable truck and equipment access via existing Forest Service roads. Due to the rugged terrain and limited access for the use of ground equipment, approximately 61 of the 71 power poles in the San Bernardino National Forest would be replaced with the use of helicopters. Helicopters would drop-off ductile iron poles, ground crews and equipment to the work site, then airlift the new poles into place. Once all the ductile iron poles are in place and the new covered conductors are attached, the wood poles would be removed by helicopter. The existing wood poles range in height from 35' to 60' and the ductile iron poles will be 50' to 60' in height.

The project is scheduled to take approximately 6 months to complete with construction scheduled to start in the spring of 2023 and be completed in the fall of 2023. Removed poles and other equipment are to be stored at Bear Valley Electric Facility in the City of Big Bear to be properly disposed of or recycled. The helicopters would be stationed at the Big Bear Airport that is located in Big Bear Lake approximately four miles northeast of the project and would fly to the project site on a daily basis.

The existing power line alignment was surveyed by a biologist to determine if the project could have any biological resource impacts. Based on the results of the biological survey, there are

Sensitive Species in the region that could occur in the area that is proposed for construction. As a result, it is recommended that a biological monitor with generalist knowledge be onsite full-time for all construction activities. Construction proposed near known Sensitive Specie reproductive areas may be required to be postponed and recommence only after the reproductive season has ended. Throughout the nesting bird season, which is approximately March 1 through September 1 annually, nesting bird surveys will be required prior to the start of any construction activity. It is recommended that BVES consult with the U.S. Forest Service, U.S. Fish and Wildlife Service (USFWS), and/or the California Department of Fish and Wildlife prior to the start of construction to ensure that all proper biological resource mitigation measures are taken prior to the start of construction.

We submitted a cultural survey request in 2019 and permission was granted to conduct the survey on 8/15/2022. The survey was completed on 10/17/2022. There were no resources to exist within the proposed construction area, and a copy of the Cultural survey report will be sent to the San Manuel Band of Mission Indians and the USFS.

United States Department of Agriculture
Forest Service
San Bernardino National Forest
Mountaintop Ranger District
P.O. Box 290
Fawnskin, CA 92333
909-866-3437 (Voice)
909-866-2867 (FAX)
909-866-3233 (TTY)

**File Code:** 2670

# Appendix C

**Date:** 09/20/2023

**Subject:** Project Record for Radford Line Covered Conductor Replacement Project

We have reviewed the proposed action for the Radford Line Covered Conductor Replacement Project for potential effects to Threatened, Endangered, Sensitive, and Watch List species on the San Bernardino National Forest. We recommend the following Design Features be incorporated into the proposed action and included in the implementation/decision.

These Design Features are important in order to reach the determinations of effects below:

*Coordination*

- Project administrators, inspectors, and personnel will be provided information on rare animals, rare plants, and weeds within project areas and provided direction for what to do if those species are encountered (including notification of a district biologist or botanist).
- Crews will be instructed to contact the Forest Service permit administrator as the person responsible for overseeing compliance of protection measures. The permit administrator will coordinate directly with SBNF biologists and botanists as needed to achieve required avoidance and minimization.
- Observations of special-status plant/wildlife species or their diagnostic signs during pre-work surveys or project activities/monitoring will be conveyed to the Forest Service permit administrator or designee within 24 hours of the observation. Observations will be documented and reported to the Forest Service within 5 work days. The documentation will include observation details and photos if possible.

*Project Access*

- Project vehicles/equipment should be parked on existing disturbed areas, staying within existing road prism.

*General Project Activities*

- Nighttime (after dusk and before dawn) work (and use of artificial lighting) will not be permitted.
- No side-casting of materials is permitted.
- Temporary overburden piles would be stored in road bed or other previously-disturbed site/clearing. Exceptions would require Forest Service approval.

*Fire Prevention*

- Work crews will follow all appropriate SBNF fire prevention restrictions and guidelines.

- Care will be exercised when driving and parking vehicles where catalytic converters can ignite dry vegetation. All vehicles will carry a fire extinguisher and shovel. Personnel will not smoke or extinguish cigarettes except in a vehicle or where there is an area cleared to bare mineral soil. Current Forest Service fire restrictions will be followed.

*Vegetation Removal/Trimming*

- Felling of hazard trees and vegetation removal/trimming will only be conducted with prior approval from the Forest Service. To the greatest extent possible, hazard trees will be felled away from riparian areas and healthy trees. The Forest Service will provide instruction on disposal of vegetation/wood.

*Protection of Trees*

- To the greatest extent possible, roots of trees will not be severed during trenching and digging. Where feasible, hand tools will be used to remove dirt under and around roots 3+" in diameter, leaving the root connected.
- Equipment will avoid working within the dripline of trees to minimize impacts of compaction and risk of damage to tree trunks. Where this is not feasible, the use of equipment will be planned carefully in order to limit those impacts.
- Equipment, supplies, materials, and soil/gravel, etc. will not be stored up against living trees.

*Non-Native Species*

- Pursuant to Forest Service Manual (FSM) Section 2081.03 guidelines for weed control, all equipment, vehicles, and tools (*e.g.*, augers, chain saws, hand clippers, pruners, etc.) will be washed with a high pressure water/air system before entering the SBNF and before moving to new project sites. A wash log will be kept with the crew at all times. If a biological monitor is present, they will also retain a copy of the wash log.
- Vehicles must remain within the designated forest service system road prism, unless in a previously designated area, to prevent damage and the further spread of non-native species.
- All material from off-site sources (fill, base material, fill, rock and gravel, straw, mulch, etc.) used for erosion control, rehabilitation of temporary routes/landings, and/or route maintenance must be certified weed-free (S-6, LMP Part 3, p. 5). Fill material will be dry before transporting to the site to minimize the risk of introducing non-native aquatic plants, pathogens, and invertebrates (*e.g.,* snails, mussels, chytrid, etc.).

*Helicopter Use*

- Where helicopters are needed, all helicopter flight paths and landing zones will be delineated prior to implementation in coordination with the District Wildlife Biologist to ensure protection of rare species/habitats. Helicopter flight paths and altitudes for accessing the project area will be coordinated with the biologist to avoid low-level flights over the sensitive wildlife areas (*e.g.,* spotted owl habitat, sites with California condor records, bald eagle habitat, riparian habitat, bighorn sheep habitat, raptor nests, etc.).

- Minimal flight heights will be 345 feet (105 meters) above the treetops (spotted owls, bald eagles) or riparian vegetation (willow flycatcher habitat). The height restriction would be adjusted depending on helicopter type/size.

*Wildlife/Plants*

- Special habitat features of rare animals (*e.g.,* snags, burrows, woodrat nests, downed logs, etc.) should be avoided to the greatest extent feasible.
- Work crews will be provided training on rare animals, rare plants, and weeds within project areas and provided direction for what to do if those species are encountered (including notification of a Forest Service biologist).
- If bird nests are found during project implementation, activities will cease in the immediate area until the Forest Service permit administrator is notified. The biologist will determine whether activities may resume or whether to stop activities until young have fledged and the nest is vacant (as determined by the project biologist).
- All holes and trenches will be covered/filled at the end of every day in order that wildlife will not become trapped. Where it is not possible to cover a trench or hole, it will be equipped with an "escape ramp" (*e.g.,* piece of lumber, stick, etc.) that allows animals to climb out. Holes and trenches will be checked each morning and any animals that have not escaped will be removed immediately.
- Project personnel will not bring pets to the work sites.
- Feeding of all wildlife is prohibited.
- Collecting of any wildlife or plants is prohibited.
- Trash and food shall be contained in closed containers and removed from the job site daily to reduce attractiveness to opportunistic wildlife species. All construction debris will be removed at the end of the job.
- Crews will not intentionally injure or kill wildlife species (including snakes). Instead, animals will be allowed to leave the work area before work resumes.

*Southwestern willow flycatcher*

- Helicopter – Southwestern Willow Flycatcher: Low-level flights (under 345' above the top of vegetation) will be avoided within 500' of suitable habitat during the breeding season (May 1st through August 31st), unless protocol-level surveys indicate that the area is not occupied that year. The intent of the buffer is to avoid rotor downwash and extended disturbance (more than 2 hours) within the nesting habitat. Suitable is assumed occupied unless protocol level surveys are conducted and result in absence.
- No activities within 500' of willow flycatcher habitat during LOP (May 1st through August 31st). Exceptions may be allowed where work at a particular site can be completed within a 2-hour period or where a biologist determines that sound levels associated with the project activities would not raise noise above ambient levels in the suitable habitat. Work within 500 feet of suitable habitat may occur outside the nesting season if there are no impacts to riparian vegetation or aquatic systems.
- No trimming or removal of riparian vegetation would be allowed in suitable or Critical Habitat during the LOP. Exceptions for safety would need District Biologist coordination.
- A biological monitor must be on site (regardless of time of year) during work in southwestern willow flycatcher suitable habitat to ensure that impacts are avoided.

*Bald Eagle*

- Helicopter - Low-level flights will be avoided within ¼ mile of day use areas and nest sites during the season when bald eagles are regularly present.
- Wintering Bald Eagle Night Roosts LOP: Between 12/1 and 4/1 within ¼ mile of known night roosts, no night-time (between ½ hour before sunset to ½ hour after sunrise) work. Exceptions may occur where a Forest Service biologist determines that the type and duration of the work is unlikely to result in substantial disturbance to eagles.
- No daytime work (between ½ hour before sunrise to ½ hour after sunset) within ¼ mile of known day use areas or nests. Exceptions may occur where a Forest Service biologist determines that the type and duration of the work is unlikely to result in substantial disturbance to eagles.
- If nests are located prior to or during implementation, work that could affect breeding behavior would be stopped while appropriate Design Features are developed.

*California Spotted Owl*

- Helicopter - Low-level daytime flights over Nest Stands (NS), Protected Activity Centers (PACs) and Home Range Cores (HRCs) will be avoided during LOP (February 1st through August 15th) if the territory is occupied. Where avoidance is not possible, the project manager will coordinate with the biologist prior to implementation.
- A LOP (February 1st through August 15th) will be observed where work is planned in within ¼ mile of nest trees (unless the Forest Service biologist determines that the LOP is not needed due to lack of occupancy or noise attenuation).
- No removal or trimming of vegetation (including dead trees) in mapped spotted owl habitat unless pre-approved by the Forest Service. Directional felling should be used to minimize impacts to nest groves.

*Rare Reptiles and Amphibians*

- If materials and/or equipment will be stored in the work/staging areas that could shelter rare snakes and amphibians, barrier-type fencing will be installed around those sites to reduce the likelihood of those animals moving onto the sites. Coordinate with the Forest Service biologist to determine the need for this type of barrier once the specifics about how the staging areas will be used have been determined.
- In order to reduce the risk of running over slow-moving animals, project personnel will do visual checks for snakes and other animals prior to moving parked equipment and vehicles.
- Project personnel will not intentionally kill any animals, including snakes.
- If southern rubber boas, San Bernardino mountain kingsnakes, or ensatina are found in the project area, work will stop in the immediate area until the Forest Service biologist has been notified and provides direction or the animals have moved to a safe area on their own.
- Personnel will be instructed to avoid moving or disturbing downed logs and rock outcrops in order to protect small animal habitats. If disturbance is unavoidable, a

biologist will be present to monitor for sensitive species during disturbance of the habitat. Equipment, supplies, materials, and soil/gravel, etc. will not be stored on or against logs or rock outcrops.

- A biological monitor will be on-site when work is conducted in suitable habitat for southern rubber boas.

Determinations/Findings

The proposed project would have temporary and short-term disturbance effects during construction and maintenance activities. Because the site is already highly disturbed, it would not result in any additional loss of wildlife/plant habitat. Assuming the incorporation of the proposed Design Features during implementation, it is my determination that:

- *For Threatened/Endangered Species and Critical Habitat*: that implementation of the proposed action as described would not affect any federally-listed plants or animals or designated Critical Habitat for any of T/E animals and plants. No Endangered Species Act Section 7 consultation is necessary for this project.
- *For Region 5 Sensitive Species*: that implementation of the proposed action would have no effect or may affect individuals, but is not likely to result in a trend toward Federal listing, of the Sensitive animal or plant species on the current SBNF list.
- *For all Species, including SBNF Watch List Species*: the project would not interfere with maintenance of viable plant and animal populations well-distributed across the SBNF, including T/E, Sensitive, and Watch-list species.
- *Migratory Birds*: Implementation of the Proposed Action may result in unintentional impacts to individuals. The likelihood of effects is considered very low. The project complies with the Migratory Bird Executive Order (Jan, 11, 2001).

This proposed project is not expected to add to the reasonably foreseeable cumulative effects for TESW plants and animals in the San Bernardino Mountains.

/s/ Julie Donnell

Julie Donnell, District Wildlife Biologist

/s/ Joseph Esparza

Joseph Esparza, Botanist

**Consultation**

Tribal Consultation: Morongo Band of Mission Indians (MBMI) and Yuhaaviatam of San Manuel Nation YSMN)

MBMI requests:

- Tribal Monitors for ground disturbing project work within the accessible portions of the project area. BVES will work directly with MBMI for Tribal Monitoring Services Agreement.
- Notification, continuing consultation, and opportunity to provide input on unanticipated discoveries should pre-contact cultural resources be discovered during project activities, and that NAGPRA protocols will be followed in the event of human remains of Native American origin are encountered.

YSMN requests:

- Notification, continuing consultation, and opportunity to provide input on unanticipated discoveries should pre-contact cultural resources be discovered during project activities, and that NAGPRA protocols will be followed in the event of human remains of Native American origin are encountered.

Forest Response:

- Forest agrees to MBMI request for Tribal Monitoring and will require BVES to hire Tribal Monitors for the areas within the APE the Tribe requests to monitor. BVES will work directly with MBMI for this service.
- Forest agrees to continue consultation, notify, and provide both Tribes with opportunity for input on unanticipated discoveries of pre-contact cultural resources and is required to follow NAGPRA protocols if human remains of Native American origin are encountered.
- Forest stipulates a 100' buffer around the area of unanticipated discovery to allow for assessment of the find that also accommodates each Tribes' requested buffer area.

SHPO Consultation:

SHPO concurs with Forest finding that the Radford Line, site FS 05-12-52-1616, is not eligible for the National Register of Historic Places, and does not object to the Forest assuming eligibility for the four sites bisected by or adjacent to the APE for the purposes of this undertaking and using Approved Standard Protection Measures under Appendix E of the R5PA to avoid adverse effects (USFS_2023_0919_002).

# Attachment 3: BVES-23-13.pdf

| | | |
|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_25 Detailed Inspection** | **Revision: 00**<br>**Effective: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_25 Detailed Inspections Quality Assurance/Quality Control (QA/QC)

## 2. Responsibilities and Authorities

The Operations Supervisor is responsible for management of the GD_25 Detailed Inspections.

The BVES Inspector will be conducted the detailed inspections.

The Project Manager will maintain records of the Detailed Inspections.

## 3. References

BVES Compliance Plan Inspection Procedures for General Order 165, July 1, 2020

GO- 165

BVES Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of QA/QC procedures will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

The Utility Engineer & Wildfire Supervisor will review the BVES Inspector background, BVES Compliance Plan Inspection Procedures for General Order 165, and GO-165 on an annual basis and will modify procedures as necessary.

## 6. QC Procedures

The BVES Inspector will inspect each segment based on the schedule outlined in inspection procedures. Detailed inspections requirements are outlined in the inspection procedures and the inspector will record detailed inspection findings in the iRestore software application. The BVES Inspector Technician will provide feedback to Project Manager on all discrepancies found. Records will be maintained for any corrections required based on detailed inspection.

Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 13:56:38 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
| | | | | |

| | | |
|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_26 Patrol Inspections** | **Revision: 00**<br>**Effective: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_26 Patrol Inspections QA/QC procedures.

## 2. Responsibilities and Authorities

The Operations Supervisor is responsible for management of the GD_26 Patrol Inspections.

The BVES Inspector will be conducted the detailed inspections.

The Project Manager will maintain records of the Patrol Inspections.

## 3. References

BVES Compliance Plan Inspection Procedures for General Order 165, July 1, 2020

GO- 165

BVES Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of QA/QC procedures will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

The Utility Engineer & Wildfire Supervisor will review the BVES Inspector background, BVES Compliance Plan Inspection Procedures for General Order 165, and GO-165 on an annual basis and will modify procedures as necessary.

## 6. QC Procedures

The BVES Inspector will inspect each segment based on the schedule outlined in inspection procedures. Detailed inspections requirements are outlined in the inspection procedures and the inspector will record detailed inspection findings in the iRestore software application. The BVES Inspector Technician will provide feedback to Project Manager on all discrepancies found. Records will be maintained for any corrections required based on detailed inspection.

Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 13:58:46 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
| | | | | |

| BEAR VALLEY ELECTRIC SERVICE, INC. | QA/QC Procedures for GD_27 UAV Thermography | Revision: 00<br>Effective: 04/14/24 |
|---|---|---|

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_27 UAV Thermography Quality Assurance/Quality Control.

## 2. Responsibilities and Authorities

Wildfire Mitigation and Reliability Engineer is responsible for management of the GD_27 UAV Thermography QA/QC program.

BVES contracted UAV inspection team is responsible for completing the inspection.

BVES Field Inspector is responsible for confirming and remediating any findings.

## 3. References

UAV Inspection Contract No: 3152 - 000

iRestore Software

GO-95

MyROWkeeper

Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of UAV Inspection will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

BVES will annually verify that the personnel conducting the inspections have the proper licensing and training.

BVES will annually verify that the project has all necessary permits for flying.(when applicable)

## 6. QC Procedures

After the completion of the UAV thermography inspection, all photos will be uploaded into MyROWkeeper along with an Excel sheet with report of findings. Once BVES receives all of the findings, the Wildfire Mitigation and Reliability Engineer will select any potential findings and report them to the BVES field inspector. The field inspector will specify any remediation that is deemed necessary outlined in GO-95 standards.

Inspection finding will be recorded in the iRestore software along with an Excel spreadsheet. Discrepancies are tracked by the Wildfire Mitigation and Reliability Engineer. Pass through rates are calculated with the data in the iRestore software and will be reported. If any trends are identified, the Wildfire Mitigation and Reliability Engineer will inform the Utility Manager.

## Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 14:00:47 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
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|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_28 UAV Photography/ Videography** | **Revision: 00**<br>**Effective: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_28 UAV Photography/Videography Quality Assurance/Quality Control (QA/QC).

## 2. Responsibilities and Authorities

Wildfire Mitigation and Reliability Engineer is responsible for management of the GD_28 UAV Photography/Videography QA/QC program.

BVES contracted UAV inspection team is responsible for completing the inspection.

BVES Field Inspector is responsible for confirming and remediating any findings.

## 3. References

UAV Inspection Contract No: 3152 - 000

iRestore Software

GO-95

MyROWkeeper

Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of UAV Inspection will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

BVES will annually verify that the personnel conducting the inspections have the proper licensing and training.

BVES will annually verify that the project has all necessary permits for flying.(when applicable)

## 6. QC Procedures

After the completion of the UAV thermography inspection, all photos will be uploaded into MyROWkeeper along with an Excel sheet with report of findings. Once BVES receives all of the findings, the Wildfire Mitigation and Reliability Engineer will select any questionable findings and report them to the BVES field inspector. The field inspector will specify any remediation that is deemed necessary outlined in GO-95 standards.

Inspection finding will be recorded in the iRestore software along with an Excel spreadsheet. Discrepancies are tracked by the Wildfire Mitigation and Reliability Engineer. Pass through rates are calculated with the data in the iRestore software and will be reported. If any trends are identified, the Wildfire Mitigation and Reliability Engineer will inform the Utility Manager.

## Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 14:03:53 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
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|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_29 LiDAR Inspections** | **Revision: 00**<br>**Effective: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_29 LiDAR inspections Quality Assurance/Quality Control (QA/QC).

## 2. Responsibilities and Authorities

Wildfire Mitigation and Reliability Engineer is responsible for management of the GD_29 LiDAR inspections QA/QC program.

BVES Contracted LiDAR team is responsible for completing the inspection.

BVES Field Inspector is responsible for confirming and remediating any findings.

## 3. References

LiDAR inspection contract 3079-001

iRestore Software

GO-95

Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion LiDAR inspections will be maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

BVES will annually verify that the LiDAR equipment was properly calibrated to industry standards.

BVES will annually verify that when LiDAR is being conducted by a UAV, the personnel have the proper licensing and training.

Records will be maintained

## 6. QC Procedures

All potential findings will be reported to the Wildfire Mitigation and Reliability Engineer in an Excel and KMZ file provided by the LiDAR contractor. Potential findings will then be verified by the BVES field inspector and then remediated in the proper timeframe outlined in GO-95.

Inspection findings will be recorded in the iRestore software. Discrepancies are tracked by the Wildfire Mitigation and Reliability Engineer. Pass through rates are calculated with the data in the

iRestore software and will be reported. If any trends are identified, the Wildfire Mitigation and Reliability Engineer will inform the Utility Manager.

## Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 14:05:53 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
| | | | | |

| | | |
|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_31 Intrusive Pole Inspections** | **Revision: 00**<br>**Effectivity: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_31 Intrusive Pole Inspections Quality Assurance/Quality Control (QA/QC)

## 2. Responsibilities and Authorities

BVES contracted Intrusive Pole inspection team is responsible for completing the inspection.

BVES Engineering Department will review all Intrusive pole Inspections.

BVES Field Inspector is responsible for confirming and prioritizing any findings by level.

## 3. References

Intrusive Pole Inspections Contract Number 3157

iRestore Software

BVES GO 165 Compliance Plan

2020 BVES Intrusive Parameter

Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of Intrusive Pole Inspection will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

BVES will annually verify that the contractor and personnel conducting the inspections have the proper licensing, training and equipment calibration.

A review of the Intrusive Pole Inspections will be completed by the Engineering Department.

Records of the review will be maintained.

## 6. QC Procedures

After the completion of the Intrusive Pole inspection by the contractor, all photos and report will be uploaded into iRestore software along with an Excel sheet with report of findings. Once BVES receives all of the findings, the Electric Distribution Systems Engineer will select any potential findings and report them to the BVES field inspector. The field inspector will prioritize any findings by level 1, 2, or 3.

Inspection finding will be recorded in the iRestore software along with an Excel spreadsheet. Findings are tracked and followed up by the Electric Distribution Systems Engineer to schedule design/replacement and will inform the Utility Engineer and Wildfire Mitigation Supervisor. After finding are resolved, the correction will then be logged into the iRestore application as completed.

## Revisions

| Rev | Issued To | Title | Date | Signed By |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 14:09:48 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
| | | | | |

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|---|---|---|
| BEAR VALLEY ELECTRIC SERVICE, INC. | **QA/QC Procedures for GD_32 Substation Inspections** | **Revision: 00**<br>**Effective: 04/14/24** |

## 1. PURPOSE AND SCOPE

The purpose of this procedure is to detail BVES's responsibilities, activities and documentation when required to perform GD_32 Substation Inspections Quality Assurance/Quality Control (QA/QC).

## 2. Responsibilities and Authorities

The is Operations Supervisor is responsible for management of the GD_32 Substation Inspections

The Substation Technician will be conducted monthly inspections of each substation.

The Project Manager will maintain records of the Substation Inspections.

## 3. References

BVES Operations and Planning Department Policy and Procedure 15: Substation Inspection Program

GO-174

BVES Document & Electronic Data Management Policy

## 4. Record Keeping

All records documenting completion of QA/QC procedures will be a maintained in accordance to the Document & Electronic Data Management Policy.

## 5. QA Procedures

The Utility Engineer & Wildfire Supervisor will review the Substation Technician background, BVES Procedure 15, and GO-174 on an annual basis and will modify procedures as necessary.

## 6. QC Procedures

The Substation Technician will inspect each substation on a monthly basis. Inspection produces outlined in BVES Procedure 15 will be followed and the GO-174 inspection spreadsheet will be completed and signed. The spreadsheet will be sent to the Project Manager who will maintain the records for substation inspections. The substation Technician will provide feedback to BVES Operations Supervisor and Utility Engineer & Wildfire Supervisor on all discrepancies found. Records will be maintained for any corrections required for substations.

Revisions

| Rev | Issued by | Title | Date | Signed |
|---|---|---|---|---|
| Rev 0 | | | Jon Pecchia | Digitally signed by Jon Pecchia<br>Date: 2024.04.14 14:11:34 -07'00' |
| Rev 1 | | | | |
| Rev 2 | | | | |
| | | | | |

# Attachment 4: BVES-23-15.xlsx

| Outage Date | Circuit | Substation | Location (Street Address) | Area | Response Time | Number of Customers Out | AFN Customers Out | Outage Duration | Customer Minutes Out | Event SAIDI | Daily SAIDI | Outage Cause Category | Wire Down | Protective Device Actuated | Description of Cause |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/9/23 | Erwin Lake | Maltby Substation | 416 San Martin | Sugarloaf | <5 Minutes | 5 | 0 | 96 | 480 | 0.019652801 | 0.019652801 | Vegetation contact | Yes | ELF Blown | A tree fell and broke the #2 str. H.T. that feeds the area. |
| 1/10/23 | Boulder | Village Substation | 39771 Forest | Big Bear Lake | <5 Minutes | 8 | 0 | 120 | 960 | 0.039305601 | 3.276981657 | Vegetation contact | Yes | No | High winds blew a tree down leading to contact with the lines. |
| 1/10/23 | North Shore | Fawnskin Substation | 40006 North Shore | Fawnskin | <5 Minutes | 1523 | 46 | 49 | 74627 | 3.055478218 | | Vegetation contact | No | AR/Switch Actuated | High Winds lead to vegetation contact with the lines. |
| 1/10/23 | Boulder | Village Substation | 749 Cienega | Big Bear Lake | <5 Minutes | 50 | 1 | 89 | 4450 | 0.182197838 | | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | The TripSaver opened. The cause of the opening is unknown |
| 1/19/23 | Erwin Lake | Maltby Substation | 357 Greenspot | Big Bear City | <5 Minutes | 11 | 0 | 247 | 2717 | 0.11124304 | 0.11124304 | Equipment / facility failure or damage- Conductor | No | No | There was a bad primary connection at cut-out of transformer. |
| 1/21/23 | Sunrise | Maple Substation | 190 Victoria Ln | Sugarloaf | <5 Minutes | 8 | 0 | 150 | 1200 | 0.049132001 | 0.049132001 | Equipment / facility failure or damage- Cutout | No | ELF Blown | Elf fuse opened for unknown reasons. |
| 1/22/23 | North Shore | Fawnskin Substation | BB track lease #311 | Fawnskin | <5 Minutes | 3 | 0 | 347 | 1041 | 0.042622011 | 0.042622011 | Equipment / facility failure or damage- Transformer | No | TripSaver Actuated | There was a bad 5kVA transformer, which lead to a fuse opening |
| 2/14/23 | Pioneer | Palomino Substation | 454040 3rd | Big Bear City | <5 Minutes | 3 | 0 | 113 | 339 | 0.01387979 | 0.01387979 | Equipment / facility failure or damage- Connection Device | No | No | Due to high winds a Neutral broke off transformer. |
| 2/21/23 | Sunset | Maple Substation | 600 block of Orange s/o Barton | Sugarloaf | <5 Minutes | 1629 | 61 | 180 | 293220 | 12.00540452 | 18.93154274 | Wire-to-wire contact | No | AR/Switch Actuated | High winds lead to line to line contact (slap) of the primary phases |
| 2/21/23 | North Shore | Fawnskin Substation | Rim of the World 1/4 mile beyond pavement | Fawnskin | <5 Minutes | 1353 | 27 | 120 | 162360 | 6.647559777 | | Vegetation contact | Yes | AR/Switch Actuated | Wind event caused down tree which broke the primary line |
| 2/21/23 | North Shore | Fawnskin Substation | Rim of the World 1/4 mile beyond pavement | Fawnskin | | 12 | | 567 | 6804 | 0.278578447 | | Vegetation contact | | | Same outage as above |
| 2/22/23 | Paradise | Maltby Substation | 437 Sugarloaf | Big Bear City | 5-10 Minutes | 4 | 0 | 118 | 472 | 0.019325254 | 0.019325254 | Vegetation contact | Yes | No | A tree fell due to snow and wind taking down service and secondary lines |
| 4/18/23 | Erwin Lake | Maltby Substation | Woodland x 7th | Erwin Lake | <5 Minutes | 2015 | 61 | 60 | 120900 | 4.950049132 | 4.895694839 | All Other | No | AR/Switch Actuated | Line crews contaced phases during work, which created an outage. |
| 5/5/23 | Erwin Lake | Maltby Substation | 2129 1st Ln | Erwin Lake | <5 Minutes | 14 | 0 | 92 | 1288 | 0.052735015 | 0.052155955 | Equipment / facility failure or damage- Fuse | No | ELF Blown | Elf fuse opened for unknown reasons. |
| 6/19/23 | Baldwin | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear City | <5 Minutes | 6802 | 683 | 108 | 734616 | 30.07762856 | 126.9049296 | All Other | No | AR/Switch Actuated | Southern California Edison had a fault at the Substation that feeds BVES. This caused the supply of energy to drop. |
| 6/19/23 | Baldwin | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear City | | 4907 | | 2 | 9814 | 0.401817884 | | All Other | | | Same outage as above |
| 6/19/23 | Baldwin | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear City | | 4 | | 10 | 40 | 0.001637733 | | All Other | | | Same outage as above |
| 6/19/23 | Shay | SCE Goldhill Substation | 34kV Shay IR3440 | Big Bear Lake | | 7644 | | 184 | 1406496 | 57.5866361 | | All Other | | | Same outage as above |
| 6/19/23 | Garstin | SCE Goldhill Substation | 34kV Shay IR3440 | Big Bear Lake | | 1056 | | 111 | 117216 | 4.799213888 | | All Other | | | Same outage as above |
| 6/19/23 | Garstin | SCE Goldhill Substation | 34kV Shay IR3440 | Big Bear Lake | | 1040 | | 17 | 17680 | 0.723878153 | | All Other | | | Same outage as above |
| 6/19/23 | Garstin | SCE Goldhill Substation | 34kV Shay IR3440 | Big Bear Lake | | 1020 | | 44 | 44880 | 1.837536849 | | All Other | | | Same outage as above |
| 6/19/23 | Garstin | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 1056 | | 9 | 9504 | 0.38912545 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 880 | | 120 | 105600 | 4.323616115 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 850 | | 4 | 3400 | 0.139207337 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 840 | | 8 | 6720 | 0.275139207 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 810 | | 18 | 14580 | 0.596953816 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 800 | | 22 | 17600 | 0.720602686 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 880 | | 9 | 7920 | 0.324271209 | | All Other | | | Same outage as above |
| 6/19/23 | Interlaken | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 100 | | 145 | 14500 | 0.593678349 | | All Other | | | Same outage as above |
| 6/19/23 | Fox Farm | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear Lake | | 35 | | 182 | 6370 | 0.26080904 | | All Other | | | Same outage as above |
| 6/19/23 | Erwin Lake | SCE Goldhill Substation | 34kV Baldwin IR3430 | Big Bear City | | 2533 | | 230 | 582590 | 23.8531772 | | All Other | | | Same outage as above |
| 7/1/23 | Eagle | Pineknot Substation | s/e corner Finch x Swallow | Big Bear Lake | <5 Minutes | 50 | 1 | 53 | 2650 | 0.108499836 | 0.108499836 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened and needed to be replaced. |
| 7/9/23 | Shay | Moonridge Substation | 896 Clubview Dr | Big Bear Lake | <5 Minutes | 15000 | 378 | 61 | 915000 | 37.463151 | 98.60792663 | Object contact- Land Vehicle Contact | No | AR/Switch Actuated | A car hit the guy wire and cracked the pole. The vehicle incident also broke a 34kV cross arm two spans away. |
| 7/9/23 | Shay | Moonridge Substation | 896 Clubview Dr | Big Bear Lake | | 3800 | | 393 | 1493400 | 61.14477563 | | Object contact- Land Vehicle Contact | | | Same outage as above |
| 7/12/23 | Erwin Lake | Maltby Substation | C ln x Juniper | Erwin Lake | <5 Minutes | 18 | 0 | 120 | 2160 | 0.088437602 | 0.147396004 | All Other | No | Other | Outsource had a planned outage and the crew didn't hook up one transformer on primary lead. |
| 7/12/23 | Erwin Lake | Maltby Substation | Oak x D ln | Erwin Lake | | 16 | | 90 | 1440 | 0.058958402 | | All Other | | | Same outage as above |
| 7/22/23 | Shay | | PS3436IR Shay w/o Barranca | Service Area Wide | <5 Minutes | 16599 | 683 | 89 | 1477311 | 60.48603832 | 60.48603832 | Equipment / facility failure or damage- Other | No | AR/Switch Actuated | Switch opened because of an imbalence. Sensing equipment was found to be bad and needed replacement. |
| 8/13/23 | Garstin | Meadow Substation | 562 Ponderosa x Brownie | Big Bear Lake | <5 Minutes | 8 | 0 | 83 | 664 | 0.027186374 | 0.068784802 | Lightning | No | ELF Blown | 25kVA transformer ELF blew because of lightning. |
| 8/13/23 | Castle Glen | Division Substation | 1209 Juniper | Big Bear City | <5 Minutes | 11 | 0 | 74 | 814 | 0.033327874 | | Lightning | No | ELF Blown | 15kVA transformer ELF blew because of lightning. |
| 8/13/23 | Castle Glen | Division Substation | 626 McAlister | Big Bear City | <5 Minutes | 2 | 0 | 101 | 202 | 0.008270554 | | Lightning | No | ELF Blown | 15kVA transformer ELF blew because of lightning. |
| 8/30/23 | Interlaken | Meadow Substation | Club View Dr | Big Bear Lake | <5 Minutes | 3014 | 95 | 61 | 183854 | 7.527595807 | 7.650425811 | All Other | No | AR/Switch Actuated | Outsource crew contacted phase Interlaken servicing Goldmine and portion of Club View circuits |
| 8/30/23 | Interlaken | Meadow Substation | Club View Dr | Big Bear Lake | | 150 | | 20 | 3000 | 0.122830003 | | All Other | | | Same outage as above |
| 9/12/23 | North Shore | Fawnskin Substation | 1023 Fawnskin Dr | Fawnskin | <5 Minutes | 8 | 0 | 90 | 720 | 0.029479201 | 0.029479201 | Unknown | No | ELF Blown | Uknown reason for outage. |
| 9/16/23 | Baldwin | Fawnskin Substation | Fawnskin Substation | Big Bear City | <5 Minutes | 8700 | 207 | 58 | 504600 | 20.66000655 | 22.39252375 | Object contact- Animal contact | No | AR/Switch Actuated | A hawk contacted the Baldwin 34kV line at Fawnskin Sub. No damage was reported. |
| 9/16/23 | Baldwin | Fawnskin Substation | Fawnskin Substation | Big Bear City | | 2015 | | 21 | 42315 | 1.732517196 | | Object contact- Animal contact | | | Same outage as above |
| 9/21/23 | Castle Glen | Division Substation | 1161 Sugarpine Dr | Big Bear City | 5-10 Minutes | 14 | 0 | 51 | 714 | 0.029233541 | 0.029233541 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened and needed to be replaced. |
| 11/12/23 | Erwin Lake | Maltby Substation | Malabar/Zaca | Big Bear City | <5 Minutes | 25 | 1 | 63 | 1575 | 0.064485752 | 0.063777662 | Unknown | No | TripSaver Actuated | The TripSaver opened on 0 amps (fault) and had 13 amps when it reclosed |
| 11/16/23 | Goldmine | Moonridge Substation | Wolf x Villa Grove | Big Bear Lake | <5 Minutes | 2660 | 61 | 25 | 66500 | 2.722731739 | 4.549623321 | Object contact- Other | No | AR/Switch Actuated | Line crews contaced phases during work, which created an outage. |
| 11/16/23 | Goldmine | Moonridge Substation | Wolf x Villa Grove | Big Bear Lake | | 2000 | | 13 | 26000 | 1.064526695 | | Object contact- Other | | | Same outage as above |
| 11/16/23 | Goldmine | Moonridge Substation | Wolf x Villa Grove | Big Bear Lake | | 2660 | | 7 | 18620 | 0.762364887 | | Object contact- Other | | | Same outage as above |
| 11/17/23 | Goldmine | Moonridge Substation | 828 Tehama | Big Bear Lake | <5 Minutes | 30 | 0 | 137 | 4110 | 0.168277104 | 0.166429328 | Unknown | No | TripSaver Actuated | Tripsaver fuse opened for unknown reasons. |
| 11/19/23 | Baldwin | | 2 spans e/o Bear Loop | Big Bear Lake | <5 Minutes | 11,621 | 318 | 72 | 836712 | 34.25777923 | 37.75843433 | Object contact- Land Vehicle Contact | Yes | AR/Switch Actuated | A car made cntact with a pole. The associated report is listed below. CHP report # 9865 |
| 11/19/23 | Baldwin | | 2 spans e/o Bear Loop | Big Bear Lake | | 75 | | 1140 | 85500 | 3.500655093 | | Object contact- Land Vehicle Contact | | | Same outage as above |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/20/23 | SCE Goldhill Ute Lines | SCE Goldhill Substation | SCE Goldhill Substation | Service Area Wide | <5 Minutes | 21203 | 683 | 4 | 84812 | 3.472486079 | 3.472486079 | All Other | No | No | Southern California Edison had a fault at the Substation that feeds BVES. This caused the supply of energy to drop. |
| 12/21/23 | Clubview | Moonridge Substation | 42736 Sonoma | Big Bear Lake | <5 Minutes | 50 | 1 | 78 | 3900 | 0.159679004 | 0.159679004 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | A TripSaver opened but the cause of the opening is unknown |
| 12/22/23 | Goldmine | Moonridge Substation | Primrose x Primrose Ct. Pole 3566BV | Big Bear Lake | <5 Minutes | 30 | 1 | 140 | 4200 | 0.171962005 | 7.208074026 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened and needed to be replaced. |
| 12/22/23 | | Village Substation | Village Substation: 4kV Bouder, Harnish & Lagunita circuits | Big Bear Lake | <5 Minutes | 3437 | 232 | 50 | 171850 | 7.036112021 | | Equipment / facility failure or damage- Other | No | AR/Switch Actuated | 34kV Radford IR3470 opened but the reason is unknown. The switch over to Shay Line did not occur on it's own. |
| 12/23/23 | | Village Substation | Village Substation: 4kV Bouder, Harnish & Lagunita circuits | Big Bear Lake | | 2046 | | 31 | 63426 | 2.596871929 | 2.662872584 | Equipment / facility failure or damage- Other | | | Same outage as above |
| 12/23/23 | Clubview | Moonridge Substation | 42935 Dogwood | Big Bear Lake | <5 Minutes | 13 | 0 | 124 | 1612 | 0.066000655 | | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened and needed to be replaced. |
| 12/25/23 | Erwin Lake | Maltby Substation | 1208 Big Bear Bl. | Big Bear City | <5 Minutes | 1000 | 121 | 121 | 121000 | 4.954143465 | 4.954143465 | Equipment / facility failure or damage- Connection Device | No | AR/Switch Actuated | Possible bad connector on transformer on 13739BV Big Bear Blvd / Barranca |
| 12/27/23 | North Shore | Fawnskin Substation | 42402 Golden Oak | Big Bear Lake | <5 Minutes | 100 | 2 | 59 | 5900 | 0.241565673 | 0.417826728 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened and needed to be replaced. |
| 12/27/23 | Interlaken | Meadow Substation | 200 N Teakwood | Big Bear Lake | | 50 | | 75 | 3750 | 0.153537504 | | Equipment / facility failure or damage- Fuse | | | Same outage as above |
| 12/27/23 | Sunrise | Maple Substation | 240 Los Angeles | Sugarloaf | <5 Minutes | 15 | 0 | 37 | 555 | 0.022723551 | | Equipment / facility failure or damage- Other | No | ELF Blown | There was a blown 6 amp ELF fuse. The 10kVA transformer and 6 amp ELF fuse were replaced with a 12 amp ELF fuse |
| 12/29/23 | Castle Glen | Division Substation | corner of Grove x Division | Big Bear Lake | <5 Minutes | 25 | 0 | 90 | 2250 | 0.092122502 | 0.092122502 | Equipment / facility failure or damage- Fuse | No | TripSaver Actuated | Tripsaver fuse opened for unknown reasons. |

# Attachment 5: BVES-23-17.xlsx

# Bear Valley Electric Service / Weather Station Maintenance Log 2023

| # | Station | Status | Location | Maintenance Type | Offline | Last Maintenance | # Incomplete Maintenances | Notes: |
|---|---|---|---|---|---|---|---|---|
| 1 | BIG BEAR DAM | | 34.24588032,-116.8858058 | ANNUAL | N/A | 7/2/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 2 | NORTH SHORE | | 34.26318578,-116.7906527 | ANNUAL | N/A | 7/2/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 3 | FAWNSKIN | | 34.24532883,-116.9734118 | ANNUAL | N/A | 7/2/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 4 | LAKE VIEW | | 34.24732716,-116.9351533 | ANNUAL | N/A | 7/2/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 5 | DIVISION | | 34.232107,-116.845663 | ANNUAL | N/A | 7/2/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 6 | PARADISE | | 34.23298191,-116.7921129 | ANNUAL | N/A | 7/3/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 7 | BALDWIN | | 34.24027965,-116.8680024 | ANNUAL | N/A | 7/3/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 8 | PIONEER | | 34.267380, -116.880145 | ANNUAL | N/A | 7/3/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 9 | ERWIN LAKE | | 34.25554307,-116.8238292 | ANNUAL | N/A | 7/3/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 10 | ERWIN | | 34.20184,-116.905513 | ANNUAL | 6/12/2022 | 7/3/2023 | 1 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 11 | LAKE WILLIAMS | | 34.29375365,-116.8131084 | ANNUAL | N/A | 7/4/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 12 | SUNRISE | | 34.2429703,-116.8006365 | ANNUAL | N/A | 7/4/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 13 | SUGARLOAF | | 34.23198312,-116.7733238 | ANNUAL | N/A | 7/4/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 14 | GOLDMINE | | 34.24301379,-116.8373972 | ANNUAL | N/A | 7/4/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 15 | CLUBVIEW | | 34.26652527,-116.8401382 | ANNUAL | N/A | 7/4/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 16 | GARSTIN | | 34.26186422, -116866593 | ANNUAL | N/A | 7/5/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 17 | RADFORD HARNISH | | 34.26380082,-116.9344643 | ANNUAL | N/A | 7/5/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 18 | RADFORD AR | | 34.2386084,-116.9376263 | ANNUAL | N/A | 7/5/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 19 | LAGONITA | | 34.24227667,-116.9776174 | ANNUAL | N/A | 7/5/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |
| 20 | BOULDER | | 34.216491,-116.907331 | ANNUAL | N/A | 7/5/2023 | 0 | Inspection performed. No inspection findings. No manufacture maintenance required. |

# Bear Valley Electric Service / Weather Station Maintenance Log 2023

| # | Station | Location | Maintenance Type | Inability to conduct maintenance | Offline | Online | Notes: |
|---|---|---|---|---|---|---|---|
| 1 | **BIG BEAR DAM** | 34.24588032,-116.8858058 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 2 | **NORTH SHORE** | 34.26318578,-116.7906527 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 3 | **FAWNSKIN** | 34.24532883,-116.9734118 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 4 | **LAKE VIEW** | 34.24732716,-116.9351533 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 5 | **DIVISION** | 34.232107,-116.845663 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 6 | **PARADISE** | 34.23298191,-116.7921129 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 7 | **BALDWIN** | 34.24027965,-116.8680024 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 8 | **PIONEER** | 34.267380, -116.880145 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 9 | **ERWIN LAKE** | 34.25554307,-116.8238292 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 10 | **ERWIN** | 34.20184,-116.905513 | Annual | Waiting for Interface Module to arrive. | 6/12/2022 | | |
| 11 | **LAKE WILLIAMS** | 34.29375365,-116.8131084 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 12 | **SUNRISE** | 34.2429703,-116.8006365 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 13 | **SUGARLOAF** | 34.23198312,-116.7733238 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 14 | **GOLDMINE** | 34.24301379,-116.8373972 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 15 | **CLUBVIEW** | 34.26652527,-116.8401382 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 16 | **GARSTIN** | 34.26186422, -116866593 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 17 | **RADFORD HARNISH** | 34.26380082,-116.9344643 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 18 | **RADFORD AR** | 34.2386084,-116.9376263 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 19 | **LAGONITA** | 34.24227667,-116.9776174 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |
| 20 | **BOULDER** | 34.216491,-116.907331 | Annual | Inspection performed, no maintenance required at this time. | N/A | **X** | **Device is operational** |

# Bear Valley Electric Service / Weather Station Maintenance Log 2024

| # | Station | Status | Coordinates | Maintenance Type | Offline | Last Maintenance | # Incomplete Maintenances | Notes: |
|---|---|---|---|---|---|---|---|---|
| 1 | BIG BEAR DAM | | 34.24227667,-116.9776174 | ANNUAL | N/A | 4/15/2024 | 0 | PTU Sensor Replaced |
| 2 | NORTH SHORE | | 34.24532883,-116.9734118 | ANNUAL | N/A | 4/15/2024 | 0 | PTU Sensor Replaced |
| 3 | FAWNSKIN | | 34.26380082,-116.9344643 | ANNUAL | N/A | 4/12/2024 | 0 | PTU Sensor Replaced |
| 4 | LAKE VIEW | | 34.267380, -116.880145 | ANNUAL | N/A | 4/12/2024 | 0 | PTU Sensor Replaced |
| 5 | DIVISION | | 34.26186422, -116866593 | ANNUAL | N/A | 4/12/2024 | 0 | PTU Sensor Replaced |
| 6 | PARADISE | | 34.26652527,-116.8401382 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 7 | BALDWIN | | 34.29375365,-116.8131084 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 8 | PIONEER | | 34.26318578,-116.7906527 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 9 | ERWIN LAKE | | 34.2429703,-116.8006365 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 10 | ERWIN | | 34.23298191,-116.7921129 | IMPROMPTU | 6/12/2022 | 10/15/2023 | 2 | ORDER PLACED FOR INTERFACE MODULE. Maintenance Type Change to Impromptu until module is received and station is put back in operation. |
| 11 | LAKE WILLIAMS | | 34.23198312,-116.7733238 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 12 | SUNRISE | | 34.25554307,-116.8238292 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 13 | SUGARLOAF | | 34.24301379,-116.8373972 | ANNUAL | N/A | 4/12/2024 | 0 | PTU Sensor Replaced |
| 14 | GOLDMINE | | 34.232107,-116.845663 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 15 | CLUBVIEW | | 34.24027965,-116.8680024 | ANNUAL | N/A | 4/13/2024 | 0 | PTU Sensor Replaced |
| 16 | GARSTIN | | 34.24588032,-116.8858058 | ANNUAL | N/A | 10/2/2023 | 0 | PTU Sensor Replaced |
| 17 | RADFORD HARNISH | | 34.216491,-116.907331 | ANNUAL | 4/1/2024 | 4/10/2024 | 0 | PTU Sensor Replaced **OFFLINE DUE TO LINE RECONDUCTORING** |
| 18 | RADFORD AR | | 34.20184,-116.905513 | ANNUAL | 4/1/2024 | 4/10/2024 | 0 | PTU Sensor Replaced **OFFLINE DUE TO LINE RECONDUCTORING** |
| 19 | LAGONITA | | 34.24732716,-116.9351533 | ANNUAL | N/A | 4/15/2024 | 0 | PTU Sensor Replaced |
| 20 | BOULDER | | 34.2386084,-116.9376263 | ANNUAL | N/A | 4/15/2024 | 0 | PTU Sensor Replaced |

# Bear Valley Electric Service / Weather Station Maintenance Log 2024

| # | Station | Location | Maintenance Type | Inability to conduct maintenance | Offline | Online | Notes: |
|---|---|---|---|---|---|---|---|
| 1 | BIG BEAR DAM | 34.24227667,-116.9776174 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 2 | NORTH SHORE | 34.24532883,-116.9734118 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 3 | FAWNSKIN | 34.26380082,-116.9344643 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 4 | LAKE VIEW | 34.267380, -116.880145 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 5 | DIVISION | 34.26186422, -116866593 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 6 | PARADISE | 34.26652527,-116.8401382 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 7 | BALDWIN | 34.29375365,-116.8131084 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 8 | PIONEER | 34.26318578,-116.7906527 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 9 | ERWIN LAKE | 34.2429703,-116.8006365 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 10 | ERWIN | 34.23298191,-116.7921129 | IMPROMPTU | **Waiting for Interface Module to arrive (Awaiting Equipment)** | 6/12/2022 | | **Needs Interface Module to be operational. Maintenance Type Change to Impromptu until module is received and station is put back in operation.** |
| 11 | LAKE WILLIAMS | 34.23198312,-116.7733238 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 12 | SUNRISE | 34.25554307,-116.8238292 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 13 | SUGARLOAF | 34.24301379,-116.8373972 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 14 | GOLDMINE | 34.232107,-116.845663 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 15 | CLUBVIEW | 34.24027965,-116.8680024 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 16 | GARSTIN | 34.24588032,-116.8858058 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 17 | RADFORD HARNISH | 34.216491,-116.907331 | ANNUAL | **Line currently being reconductored** | 4/1/2024 | | **Replaced PTU Sensor (Maintenance Performed 4/10)** |
| 18 | RADFORD AR | 34.20184,-116.905513 | ANNUAL | **Line currently being reconductored** | 4/1/2024 | | **Replaced PTU Sensor (Maintenance Performed 4/10)** |
| 19 | LAGONITA | 34.24732716,-116.9351533 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |
| 20 | BOULDER | 34.2386084,-116.9376263 | ANNUAL | Maintenance performed. Device is operational | N/A | X | **Replaced PTU Sensor** |