Independent Evaluator Annual Report on Compliance

BVES 2022 Wildfire Mitigation Plan Compliance Assessment

Prepared for

Bear Valley Electric Services, Inc.

Prepared by Sargent & Lundy

Report SL-017808

Final

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Project 14346.003

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VERSION LOG

Version	Issue Date	Notes
Draft A	June 16, 2023	Initial issue for Office of Energy Infrastructure Safety review
Final	June 30, 2023	Final report for public comment

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition/Clarification
ARC	Annual Report on Compliance
BVES	Bear Valley Electric Services, Inc.
BVSEP	Bear Valley Solar Energy Project
CALFIRE	California Department of Forestry and Fire Protection
CAPEX	Capital Expenditures
CPUC	California Public Utilities Commission
CUEA	California Utilities Emergency Association
Energy Safety	California Office of Energy Infrastructure Safety
FLISR	Fault Localization Isolation and System Restoration
GIS	Geographical Information System
GOs	General Orders
GPS	Global Positioning System
HD	High Definition
HFTD	High Fire-Threat District
IBEW	International Brotherhood of Electrical Workers
LiDAR	Light Detection and Ranging
LMS	Learning Management System
NA	Not Applicable
NFDRS	National Fire Danger Rating System
NMC	Nickel Manganese Cobalt
OPEX	Operational Expenditures
PSPS	Public Safety Power Shutoff
QA/QC	Quality Assurance/Quality Control
QEW	Qualified Electrical Worker
QIU	Quarterly Initiative Update
RFI	Request for Information
RSE	Risk Spend Efficiency Analysis
S&L	Sargent & Lundy

Acronym/Abbreviation	Definition/Clarification
SCADA	Supervisory Control and Data Acquisition
SME	Subject Matter Expert
T&D	Transmission and Distribution
UAV	Unmanned Aerial Vehicle
USFS	US Forest Service
VM	Vegetation Management
WMP	Wildfire Mitigation Plan
WRR	Wildfire Risk Reduction Model

EXECUTIVE SUMMARY

Bear Valley Electric Services, Inc. (BVES) is an investor-owned electric utility in the mountain resort community of Big Bear Lake, California. BVES provides service to approximately 23,000 customers in a service area of approximately 32 square miles.

In accordance with the California Office of Energy Infrastructure Safety (Energy Safety) wildfire mitigation requirements, BVES engaged Sargent & Lundy (S&L) to perform an independent evaluation of BVES's compliance with its 2022 Wildfire Mitigation Plan (WMP) on March 14, 2022. As part of this evaluation, S&L performed site visits, using subcontractor ICON Utility Services, and desktop reviews of the WMP initiatives. S&L followed the scope of work outlined in the Energy Safety's "Independent Evaluator Kick-Off" presentation dated April 12, 2023, as well as in the 2022 WMP IE ARC Outline & Expectations[1].

The evaluation reviewed and assessed BVES's compliance with its WMP. This included the verification of compliance with initiative targets, verification of funding for each identified WMP activity, and validation and descriptions of any relevant BVES quality assurance/quality control (QA/QC) programs in place for WMP compliance.

S&L's evaluation was based on reviews of: (i) the BVES 2022 WMP; (ii) the BVES 2022 annual report on compliance (ARC); (iii) quarterly reports (including the quarterly initiative update [QIU]); (iv) BVES-provided, initiative-specific documentation; (v) interviews with BVES subject matter experts (SMEs); and (vi) input from site visits regarding WMP utility initiatives specific to BVES assets. Four International Brotherhood of Electrical Workers (IBEW) QEWs from S&L's subcontractor, ICON Utility Services, performed field visits May 15–19, 2023. S&L held interviews with BVES SMEs between May 31, 2023, and June 16, 2023. A list of all meetings and interviews with BVES SMEs are provided in Appendix A.

WMP ACTIVITY COMPLETION

S&L reviewed the WMP activities with specific quantifiable or qualitative performance goals and/or targets as indicated in the WMP for compliance. BVES divided the relevant WMP initiatives into the following five assessment categories:

[1] 2022 WMP IE ARC Outline & Expectations_20230419.pdf.

Table ES-1 — WMP Assessment Categories

Assessment Category	Energy Safety Definition	Number of BVES Initiatives
Large Field Verifiable	Large volume (≥100 units) + quantifiable goal/target + field verifiable WMP activities	6
Large Non-Field Verifiable	Large volume (≥100 units) + quantifiable goal/target + non-field verifiable WMP activities	13
Small	Small volume (<100 units) + quantifiable goal/target WMP activities	9
Qualitative	Qualitative goal/target WMP activities	56
Not Applicable	"Not Applicable" or no goal/target WMP activities	17

For each activity, S&L assessed WMP compliance in multiple dimensions, including work completion, work quality, and adherence to applicable protocols and procedures. For field-verifiable WMP initiative activities (in both the large- and small-volume categories), S&L completed site visits (via ICON Utility Services) to a sample of assets to verify completion of installation, adherence to applicable protocols, and work quality. For all WMP initiative activities, S&L reviewed publicly available documents, as well as documents provided by BVES, and conducted SME interviews as needed to confirm the performance of the WMP initiative activities and adherence to applicable protocols and procedures. A list of each initiative and the relevant assessment category is provided in Appendix B.

For the assessment, S&L employed a statistical sampling methodology from which results were extrapolated to determine whether BVES met the performance goal specified in the WMP. For small-volume initiative activities, S&L reviewed and validated approximately 10–100% of available and relevant documents, quality records, and assets; this was largely dependent on document availability and time constraints. For large-volume initiative goal values, S&L attempted to review and validate approximately 5–20% of relevant documents, quality records, and assets.

With respect to the WMP activity completion, of the 101 total initiatives, S&L found that BVES complied with their plan and met the indicated target and/or goals for all but 4 of those WMP initiatives:

- 7.3.2.2.2: Online Diagnostic System Pilot / Continuous monitoring sensors
- 7.3.3.3.3: Covered conductor installation / Covered Conductor Replacement Program - Radford
- 7.3.3.6.2: Distribution pole replacement and reinforcement, including with composite poles / Covered Conductor Project - Radford Line
- 7.3.4.14: Quality assurance / quality control of inspections

The “online diagnostic system pilot” project was delayed past 2022 due to procurement and subcontractor delays. Therefore, the goal was not met. The relevant equipment arrived mid-2023 and will be installed soon. The two Radford related initiatives (7.3.3.3.3 and 7.3.3.6.2) did not meet their goals due to delays in receiving permitting from the US Forest Service pushing the Radford covered conductor installation and distribution pole replacement / reinforcement past 2022 with no significant progress despite BVES effort and expenditures being made for permitting and related activities. With regard to the “quality assurance / quality control of inspections” initiative (7.3.4.14), BVES was completing quality control activities; however, objective evidence of quality assurance overview of the activities being performed was not provided and, therefore, the goal was not met.

Additionally, BVES did not have specific target goals or relevant activity for 15 of the 101 2022 initiatives spanning both the Qualitative and Not Applicable assessment categories. Since the primary scope of this independent evaluation was to determine if BVES was in compliance with its 2022 WMP target goals and since there were no specific 2022 goals (quantitative or qualitative) established for these WMP initiatives, S&L generally concluded that BVES was in compliance with the WMP for these initiatives after review of any relevant documentation and, as necessary, BVES SME interviews. Despite more rapid access to requested records and documentation this year, a general lack of more granular documentation and detailed quality plans, processes, and procedures was also identified for many of the WMP initiatives. This made the review of some initiatives heavily reliant on BVES SME interviews, clarifications, and verbal or informal explanations to determine how BVES controls relevant initiative activity. Nevertheless, the S&L assessment team found that BVES strove to comply with each of the WMP initiative goals to the best of their ability and appears to be proactive in the process of improving compliance-related documentation, record controls, staffing, and expanding capabilities for future WMP activities.

FUNDING VERIFICATION

S&L reviewed the 2022 WMP budget and actual spend for each initiative, considering CAPEX and OPEX separately. Overall, BVES spend for wildfire mitigation in 2022 was above the total budget forecast. However, S&L identified 7 initiatives for which actual CAPEX was less than the budgeted amount and 13 initiatives for which actual OPEX was less than the budgeted amount. S&L reviewed the explanations provided by BVES for each instance of CAPEX and OPEX underspend which may indicate underfunding. For all but two of the initiatives, the initiative was still met. The variance for the initiatives where there was underspending was mainly due to a difference in assumptions for the initiative budget compared to the actual amount required to perform the activities.

The two instances for the unmet initiatives were with “Covered Conductor Project – Radford Line” (Initiative 7.3.3.3. and 7.3.3.6.2.). As mentioned previously, the project has been delayed beyond 2022 due to delayed

permitting. Therefore, S&L concludes that the risk reduction intent for the initiatives was not met; however, BVES made progress towards the initiative.

VERIFICATION OF QA/QC PROGRAMS

S&L reviewed available documentation and conducted interviews of BVES SMEs to assess the BVES QA/QC programs for WMP compliance. Following an initial S&L request for QA/QC programs related to the WMP initiatives, BVES indicated that, in general, they do not have formal written QA/QC procedures, processes, or programs for controlling most of their WMP activities. BVES SME interviews and review of available documentation confirmed that—with the exceptions of the vegetation management, risk management, and emergency preparedness programs—the lack of written programs was prevalent throughout all 10 target WMP categories. Despite this, S&L also found that BVES's utilization of informal procedures and team communication to govern and control the majority of their WMP compliance activities was effective; however, it was also clear that detailed written programs and processes would provide enhanced quality controls as well as a more granular understanding of how WMP initiative-specific documents and records are generated, maintained, and updated as well as what specific quality records (or lower-tier documents) may be used to populate them. In general, implementation of new database software (e.g., iRestore) and further updates to the geographic information system (GIS) seems to have significantly improved access to detailed BVES records and documentation. Additionally, BVES indicated that further software and database improvements are ongoing and additional QA/QC programs, plans, and processes for WMP activities are planned for future years.

CONCLUSION

Of the 101 total initiatives, BVES adequately met 80 WMP initiatives, did not meet 4, and 17 were not applicable to BVES. The 17 initiatives were not applicable because BVES does not own any transmission level assets (thereby making the related transmission line initiatives irrelevant) or were not applicable because the activities for the related initiatives were completed in prior years of the current three-year WMP cycle. Where the goals or targets were not met, or for initiatives that were not fully funded, BVES appeared to often meet the intent of the initiative or made considerable progress. For this year, two of the four initiatives that did not meet their goals were due to delays in receiving permitting from the US Forest Service pushing the Radford covered conductor installation and distribution pole replacement / reinforcement past 2022 with no significant progress despite effort and expenditures being made for permitting and related activities. The "online diagnostic system pilot," this project was delayed past 2022 due to procurement and subcontractor delays. The relevant equipment arrived mid-2023 and will be installed soon. With regard to the "quality assurance / quality control of inspections" initiative (7.3.4.14), BVES was completing quality control activities; however, objective evidence of quality assurance overview of the activities being

performed was not provided and, therefore, the goal was not met. Additional formal written QA/QC programs and procedures in future years will also help validate the BVES WMP.

In general, S&L found BVES to be cooperative, responsive, transparent, and knowledgeable during the WMP compliance assessment. BVES did not hesitate to have one or several SMEs attend virtual interviews and respond to clarifications with short notice. In previous years, the most common obstacle encountered by S&L evaluators during the BVES assessment was lack of documentation availability and long turnaround times, especially for more granular quality records and inspection reports. However, this year, these documents were provided for review by BVES relatively quickly upon request. Implementation of new database software (e.g., iRestore) and further updates to the GIS seems to have significantly improved access to detailed BVES records and documentation. Overall, the S&L assessment team found that BVES genuinely supported the S&L WMP review efforts to the best of their ability.

1. INTRODUCTION

Bear Valley Electric Services, Inc. (BVES) is an investor-owned electric utility in the mountain resort community of Big Bear Lake, California. BVES provides service to approximately 23,000 customers in a service area of approximately 32 square miles.

In accordance with the California Office of Energy Infrastructure Safety (Energy Safety) wildfire mitigation requirements, BVES engaged Sargent & Lundy (S&L) to perform an independent evaluation of BVES's compliance with its 2022 Wildfire Mitigation Plan (WMP) on March 14, 2022. As part of this evaluation, S&L performed site visits by qualified electrical workers, using subcontractor ICON Utility Services, and desktop reviews of the WMP initiatives. S&L followed the scope of work outlined in the Energy Safety's "Independent Evaluator Kick-Off" presentation dated April 12, 2023, as well as in the 2022 WMP IE ARC Outline & Expectations[2].

The evaluation reviewed and assessed BVES's compliance with its WMP. This included the verification of compliance with initiative targets, verification of funding for each identified WMP activity, and validation and descriptions of any relevant BVES quality assurance/quality control (QA/QC) programs in place for WMP compliance.

S&L's evaluation was based on reviews of: (i) the BVES 2022 WMP; (ii) the BVES 2022 annual report on compliance (ARC); (iii) quarterly reports (including the quarterly initiative update [QIU]); (iv) BVES-provided, initiative-specific documentation; (v) interviews and subsequent clarification meetings with BVES subject matter experts (SMEs); and (vi) input from site visits regarding WMP utility initiatives specific to BVES assets. Four International Brotherhood of Electrical Workers (IBEW) QEWs from S&L's subcontractor, ICON Utility Services, performed field visits May 15-19, 2023. S&L held interviews with BVES SMEs between May 31, 2023, and June 16, 2023. A list of all meetings and interviews with BVES SMEs are provided in Appendix A.

[2] 2022 WMP IE ARC Outline & Expectations_20230419.pdf.

2. INDEPENDENT EVALUATOR REVIEW OF COMPLIANCE

As part of this scope of work, S&L reviewed BVES's WMP activities for completion, verified WMP funding, and reviewed QA/QC programs applicable to the WMP. The review was based on available documents, reports, interviews with BVES SMEs, and site visits to multiple assets.

2.1. WMP ACTIVITY COMPLETION

S&L reviewed the WMP activities with specific quantifiable or qualitative performance goals and/or targets, as indicated in the WMP, for compliance. BVES divided the relevant WMP initiatives into four assessment categories as defined by Energy Safety, as well as one additional "Not Applicable" (NA) category:

- Large volume (≥100 units) + quantifiable goal/target + field verifiable WMP activities
- Large volume (≥100 units) + quantifiable goal/target + non-field verifiable WMP activities
- Small volume (<100 units) + quantifiable goal/target WMP activities
- Qualitative goal/target WMP activities
- Not Applicable (BVES does not own the relevant WMP initiative assets or there was no specific 2022 goal/target or progress for the associated initiative—primarily due to completion of the related initiative project activities in prior years of the current 3-year WMP cycle)

Of the 101 BVES 2022 WMP initiative activities, 6 are considered large volume and field verifiable, 13 are considered large volume and non-field verifiable, 9 are considered small volume, 56 are considered qualitative, and 17 are considered not applicable (NA). A list of each initiative and the relevant assessment category is provided in Appendix B.

For each activity, S&L assessed WMP compliance in multiple dimensions, including work completion, work quality, and adherence to applicable protocols and procedures. For field-verifiable WMP initiative activities (in both the large- and small-volume categories), S&L completed site visits (via a QEW from ICON Utility Services) to a sample of assets to verify completion of installation, adherence to applicable protocols, and work quality. For all WMP initiative activities, S&L reviewed publicly available documents, as well as documents provided by BVES, and conducted SME interviews as needed to confirm the performance of the WMP initiative activities and adherence to applicable protocols and procedures.

A list of initiative activities considered for each category is provided in Appendix D.

2.1.1. Sampling Methodology and Discussion

The sampling methodology employed for quantitative, non-field-verifiable initiative documentation inspections (desktop reviews) during the assessment consisted of selecting a portion of each of the 2022 actualized quantitative initiative activity targets for review, inspection, and validation based on the goal volume (small versus large), document and quality record availability, asset accessibility, schedule limitations, and priority focus. S&L extrapolated results to determine whether BVES met the performance goal specified in the WMP.

For the small-volume initiative activities, S&L reviewed approximately 10-100% of available documentation. For the smaller populations, the sample size's percentage range typically included most of the population except when schedule limitations, access, or document availability issues were encountered. For large-volume initiative goal values, S&L attempted to review and validate approximately 5–20% of relevant documents, quality records, and assets. For larger populations, the sample size's percentage range is generally considered substantial enough to be statistically significant while providing reasonable confidence that the results of the sample reviews will be representative of the entire population. Since the entire BVES service area is located in a high fire-threat district (HFTD) and consists almost exclusively of Tier 2 (elevated-risk) areas (with the exception of the Tier 3 Radford line area, where little 2022 BVES WMP activity occurred), priority, fire-threat, and risk-based sample selection was largely irrelevant. As a note, Radford line assets were verified whenever possible. A summary of the quantifiable WMP activities that are not field verifiable (both large and small) along with the associated activity quantity and sample size (i.e., desktop review samples) are shown in Table 2-1.

Table 2-1 — Summary of 2022 BVES WMP Desktop Review Samples by Initiative

No.	Target #	Category / Subject / Program	UtilityInitiativeName	Approach / Review Category	Quant Target Units	Quant Target	Quant Actual	Sample Size	Actual Sample	Sample Percent
1	7.3.4.1	Asset Management & Inspections	Detailed Inspection Program [Primary]	L. Volume No Field	Circuit Miles Inspected	29	32.41	Review WOs / Records	SME database demo & photos	N/A
2	7.3.4.4	Asset Management & Inspections	UAV Thermography Program	L. Volume No Field	Circuit Miles Inspected	211	211	Review WOs / Records	SME database demo & photos	N/A
3	7.3.4.6	Asset Management & Inspections	Intrusive Pole Inspection Program	L. Volume No Field	Number of Poles Assessed	850	853	Review WOs / Records	SME database demo & photos	N/A
4	7.3.4.7	Asset Management & Inspections	LiDAR Inspection Program [Primary]	L. Volume No Field	Circuit Miles Surveyed	211	211	Review WOs / Records	SME database demo & photos	N/A
5	7.3.4.9.1	Asset Management & Inspections	Third Party Ground Patrol	L. Volume No Field	Circuit Miles Inspected	211	211	Review WOs / Records	20 Records	N/A
6	7.3.4.9.2	Asset Management & Inspections	UAV Thermography Program	L. Volume No Field	Circuit Miles Inspected	211	211	Review WOs / Records	SME database demo & photos	N/A
7	7.3.4.11	Asset Management & Inspections	Patrol Inspection Program [Primary]	L. Volume No Field	Circuit Miles Inspected	211	211	Review WOs / Records	18 Records	N/A
8	7.3.4.13	Asset Management & Inspections	Pole Loading & Replacement Program	L. Volume No Field	Number of Poles Assessed	225	381	Review WOs / Records	27 WOs	N/A
9	7.3.4.15	Asset Management & Inspections	GO-174 Substation Inspection Program [Primary]	Small Volume	Number of Monthly Substations Inspected	144	152	Review WOs / Records	152	100%
10	7.3.5.2	Vegetation Management & Inspections	Detailed Inspection Program	L. Volume No Field	Circuit Miles Inspected	29	32.41	Review WOs / Records	SME database demo & photos	N/A
11	7.3.5.6	Vegetation Management & Inspections	Quality Control of Inspections	Small Volume	Number of Vegetation Management Audits	4	4	4	4	100%
12	7.3.5.7	Vegetation Management & Inspections	LiDAR Inspection Program	L. Volume No Field	Circuit Miles Surveyed	211	211	Review WOs / Records	SME database demo & photos	N/A
13	7.3.5.9.1 & 7.3.5.9.2	Vegetation Management & Inspections	UAV & Ground Patrol	L. Volume No Field	Circuit Miles Surveyed	211	211	Review WOs / Records	SME database demo & photos	N/A
14	7.3.5.11	Vegetation Management & Inspections	Patrol Inspection Program	L. Volume No Field	Circuit Miles Surveyed	211	255.16	Review WOs / Records	SME database demo & photos	N/A
15	7.3.5.13	Vegetation Management & Inspections	Quality Control of Inspections	Small Volume	Number of Quality Control Reviews Conducted	72	132	Review WOs / Records	132	100%
16	7.3.5.16	Vegetation Management & Inspections	Enhanced Vegetation Management Program [Primary]	Small Volume	Hazard Trees Removed/Remediated	88	147	Review WOs / Records / Photos	147	100%
17	7.3.5.17	Vegetation Management & Inspections	GO-174 Substation Inspection Program	Small Volume	Number of Substations Inspected	144	152	Review WOs / Records	152	100%
18	7.3.5.20	Vegetation Management & Inspections	Enhanced Vegetation Management Program	L. Volume No Field	Circuit Miles Cleared	72	86.84	Review WOs / Records	SME database demo & photos	N/A
19	7.3.9.2	Emergency Planning & Preparedness	Community Outreach Program [Primary]	Small Volume	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	Review WOs / Records	34	5%
20	7.3.10.1	Stakeholder Cooperation & Community Engagement	Community Outreach Program	Small Volume	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	Review WOs / Records	34	5%

Note: "WOs" is an abbreviation for "Work Orders." For many non-field-verifiable initiatives, the quantitative target's unit of measure was "miles inspected" or "miles surveyed." Verification of these activities occurred through review of relevant selected BVES records and work orders.

The sampling methodology employed for the quantitative, field-verifiable initiatives (small and large volume) consisted of the use of a statistically significant sample size estimate based on the total 2022 quantitative

units (population) for each relevant initiative. Using relatively conservative assumptions with a 90% confidence level, this sample size is representative of the total population. Using the Wald method for the binomial distribution, S&L calculated a population proportion estimate assuming that the proportion distribution will be closely approximated by a normal distribution (for a sufficiently large sample size, this is expected to be true). The following summarizes the formulas and methodology used to estimate the per-initiative sample sizes:

Sample Size Formula with Finite Population Correction:

$$n_0 = \frac{\hat{p} \times (1 - \hat{p}) \times z^2}{MOE^2}$$

$$n = \frac{n_0}{1 + \left(\frac{n_0}{N}\right)}$$

Where:

- n_0: Pre-correction sample size (nearest integer rounding)
- $\hat{p}$: Sample proportion
- z: Probability value—found by using a standard normal table or z-score table (based on desired confidence level)
- MOE: Margin of error (decimal)
- n: Sample size
- N: Population size (in S&L's application, this represents the actual quantitative value for the selected initiative)

Assumptions:

- $\hat{p}$ = 0.5 (conservatively assuming maximum distribution variance)
- z = 1.64 (based on 90% confidence level)
- MOE = 5.00% (the nominal assumed value)
- This formula assumes a normal distribution and random sampling.

Combined Initiative 7.3.3.3.1 & 7.3.3.3.2, "Covered Conductor Replacement Program," was given a quantitative 2022 target goal measured in miles. The statistical sample sizing methodology discussed previously requires discrete population units. Measurements such as miles are not discrete and may lead to extremely variable sample sizes from a given population. For example, using larger units of measure (e.g., miles as opposed to feet) or percentages tends to result in extremely large (and erroneous) required sample sizes to achieve the desired confidence level. Conversely, smaller units of measure tend to result

in relatively low sample sizes that may not provide the intended confidence level. For this initiative, the target distances were divided into pole-to-pole spans (BVES's average spans are approximately 150-ft long) to provide a more realistic and uniform goal population size.

Additionally, for field-verifiable initiative activities, while S&L used randomization schemes to select samples, effort was made to ensure that samples were from relatively diverse regions within the BVES service area (e.g., heavily forested areas, highways, residential locations) where 2022 WMP activities occurred rather than choosing a large cluster of samples in the same region. Additionally, after discussion with BVES, some locations were avoided due to access limitations.

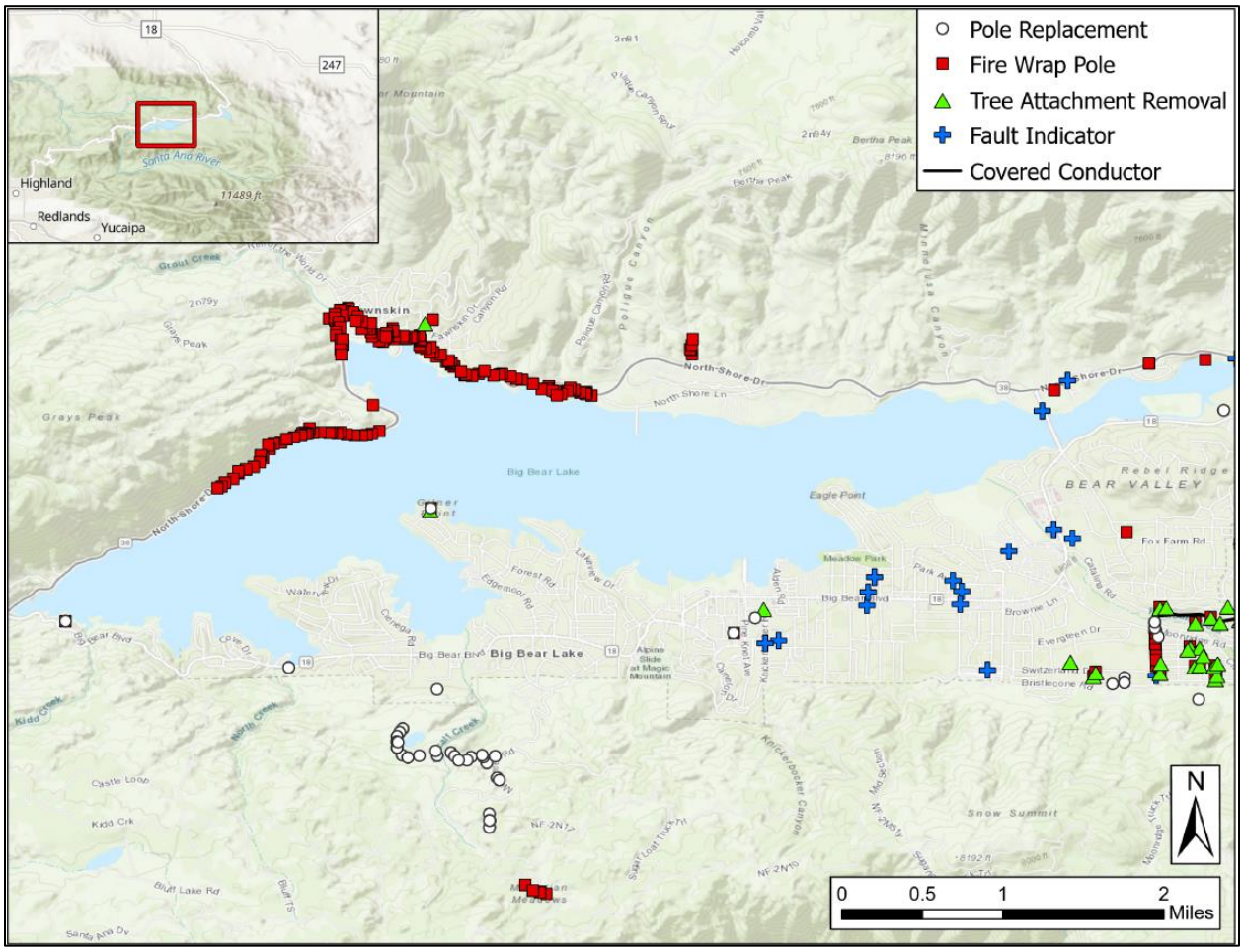
A summary of all relevant 2022 BVES WMP field verifiable initiatives (both large and small volume) including the quantitative targets as well as the statistically significant sample size targets and actuals field verified by QEWs (ICON Utility Services) is shown in Table 2-2. A list of all relevant 2022 WMP initiative sample sizes are included in Appendix C. The maps from Figure 2-1 through Figure 2-6 show all 2022 BVES field-verifiable assets, selected asset locations for field verification, and actual field-verified assets. For many initiatives, interviews with BVES SMEs were required to validate initiative activity goals since written procedures, records, and other documentation was not readily available.

Table 2-2 — Summary of 2022 BVES WMP Field-Verifiable Samples by Initiative

Initiative Activity No.	Category / Subject / Program	Utility Initiative Name	Approach / Review Category	Quant Target Units	2022 Quant Target	2022 Quant Actual	Target Sample Size	Actual Sample
7.3.2.3	Situational Awareness & Forecasting	Situational Awareness Hardware Program	Small Volume	Number of Fault Indicators	50	99	73	78
7.3.3.3.1 & 7.3.3.3.2	Grid Design & System Hardening	Covered Conductor Replacement Program	L. Volume Field	Circuit Miles Hardened	12.9	12.96	37.2% of total circuit miles	100% of total circuit miles
7.3.3.6.4	Grid Design & System Hardening	Evacuation Route Hardening Program	L. Volume Field	Poles Hardened	412	597	186	204
7.3.3.9.1	Grid Design & System Hardening	Grid Automation Program [Primary]	Small Volume	Number of Substations connected to SCADA	2	3	3	3
7.3.3.12.2	Grid Design & System Hardening	Tree Attachment Removal Program	L. Volume Field	Tree Attachment Removal	80	83	64	68

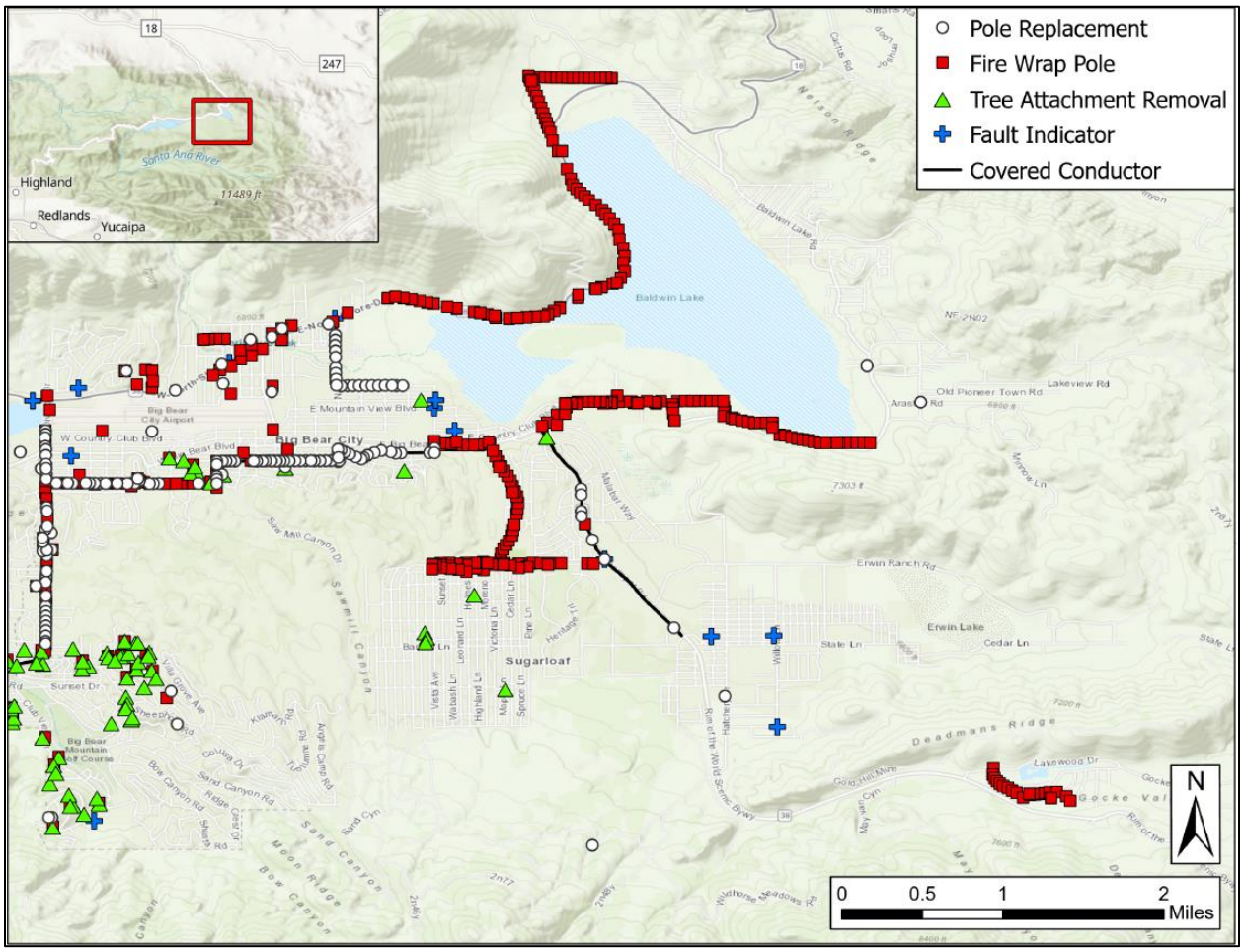
Initiative Activity No.	Category / Subject / Program	Utility Initiative Name	Approach / Review Category	Quant Target Units	2022 Quant Target	2022 Quant Actual	Target Sample Size	Actual Sample
7.3.3.13	Grid Design & System Hardening	Pole Loading & Replacement Program [Primary]	L. Volume Field	Number of Poles Replaced	165	197	114	118

Figure 2-1 — All 2022 BVES Field Verifiable Assets (Map 1 of 2)



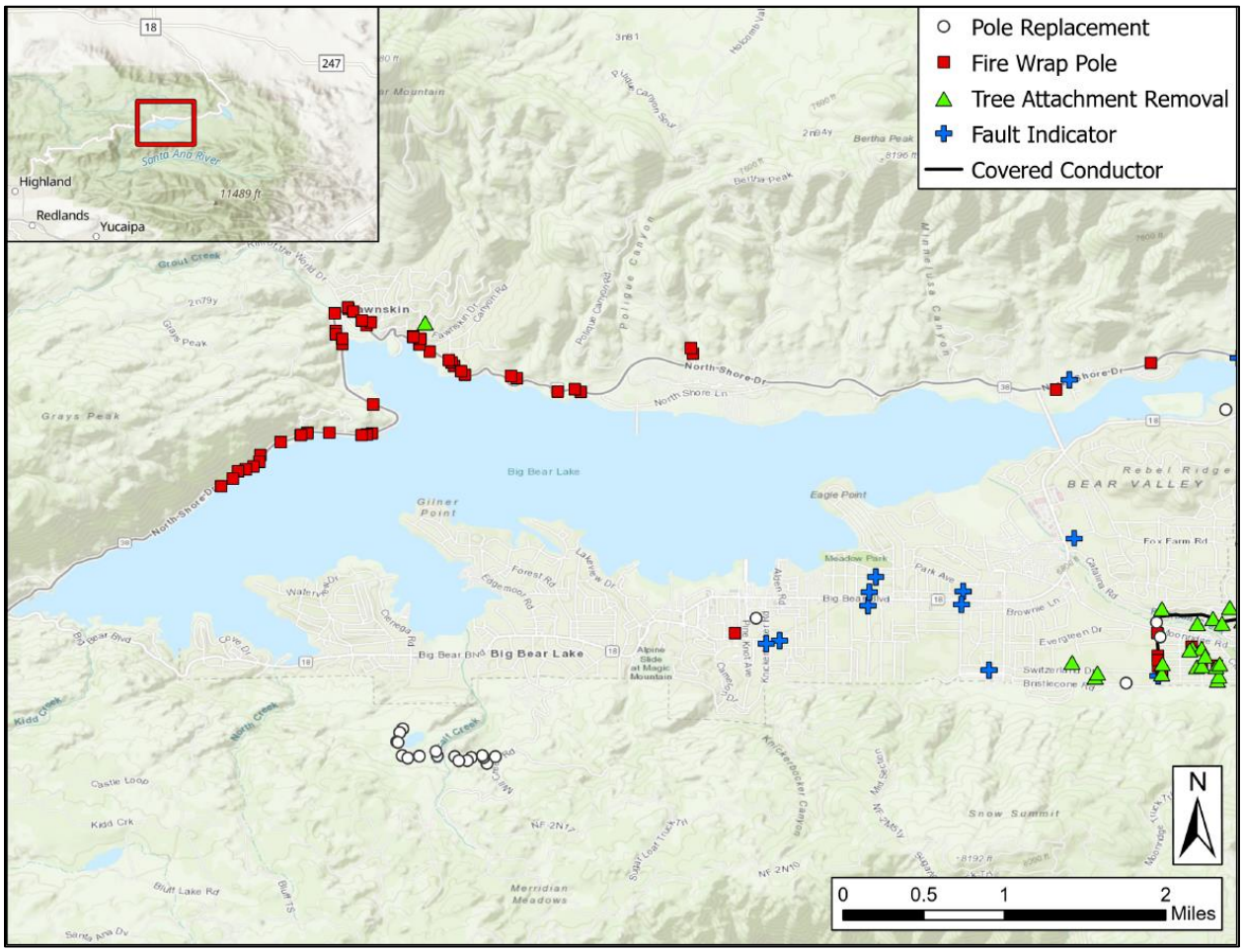
Note: This map was generated from BVES-provided geographical information system (GIS) data that was adapted by S&L for field verification activities.

Figure 2-2 — All 2022 BVES Field Verifiable Assets (Map 2 of 2)



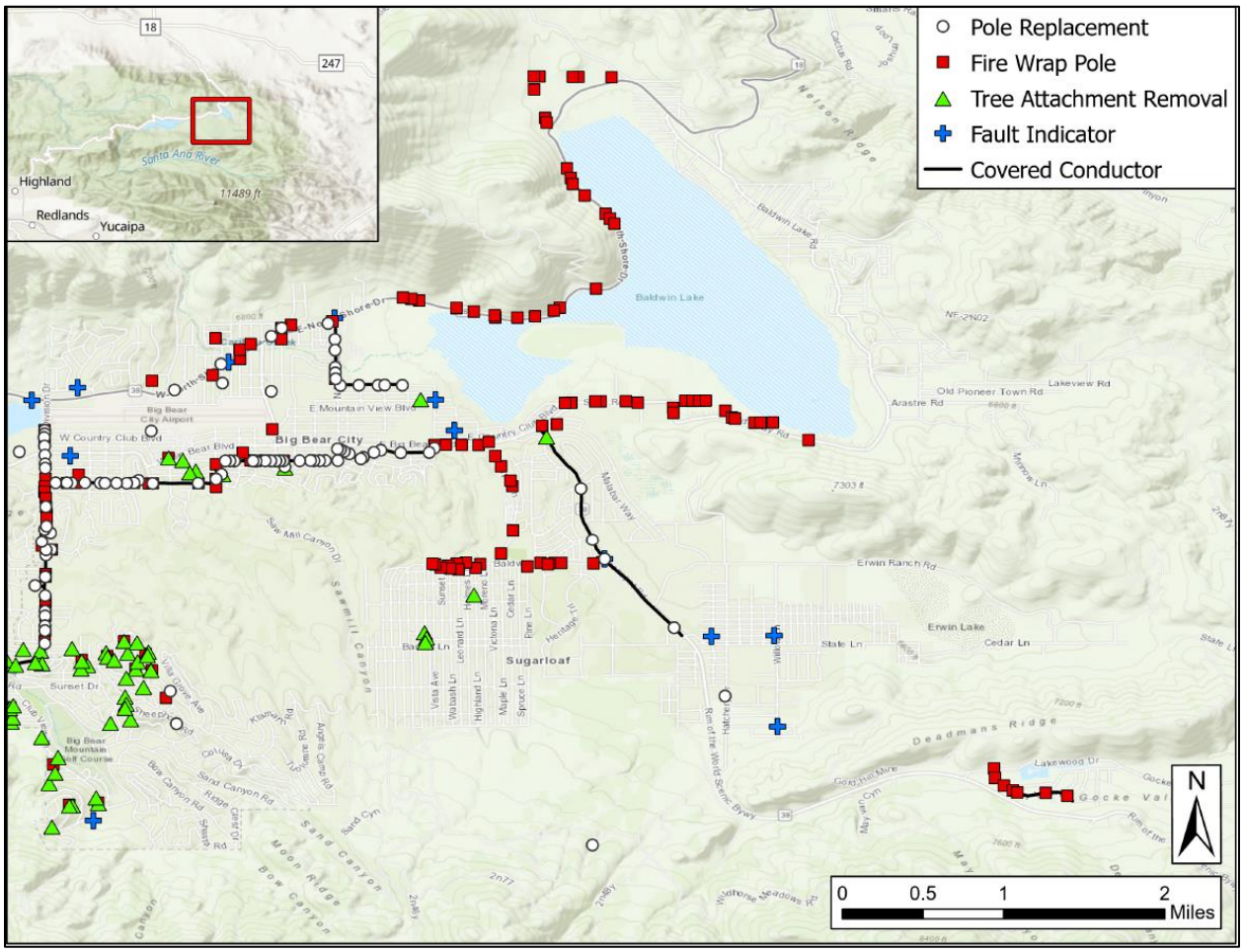
Note: This map was generated from BVES-provided GIS data that was adapted by S&L for field verification activities.

Figure 2-3 — Selected 2022 BVES Asset Locations for Field Verification (Map 1 of 2)



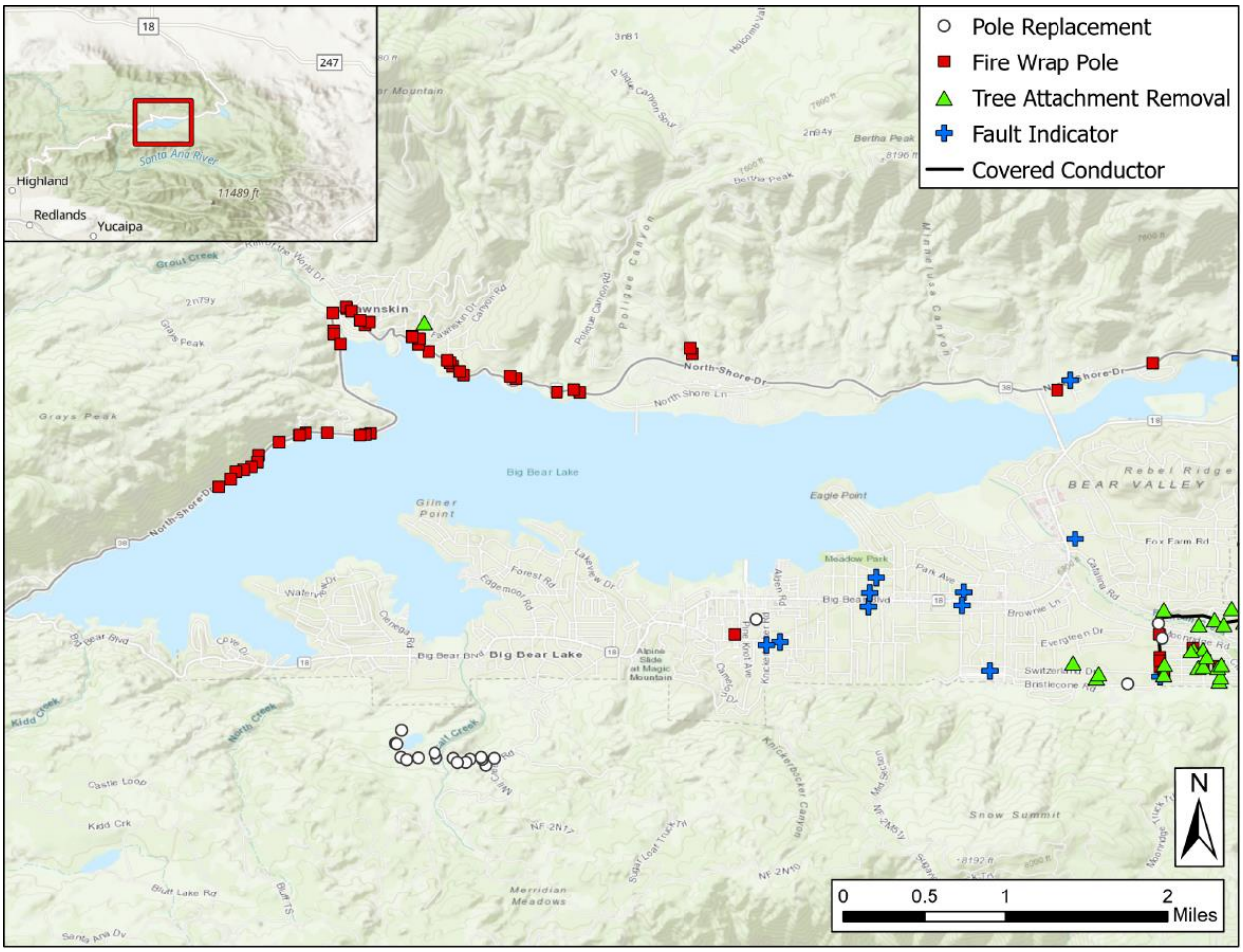
Note: This map was generated from BVES provided GIS data that was adapted by S&L for field verification activities.

Figure 2-4 — Selected 2022 BVES Asset Locations for Field Verification (Map 2 of 2)



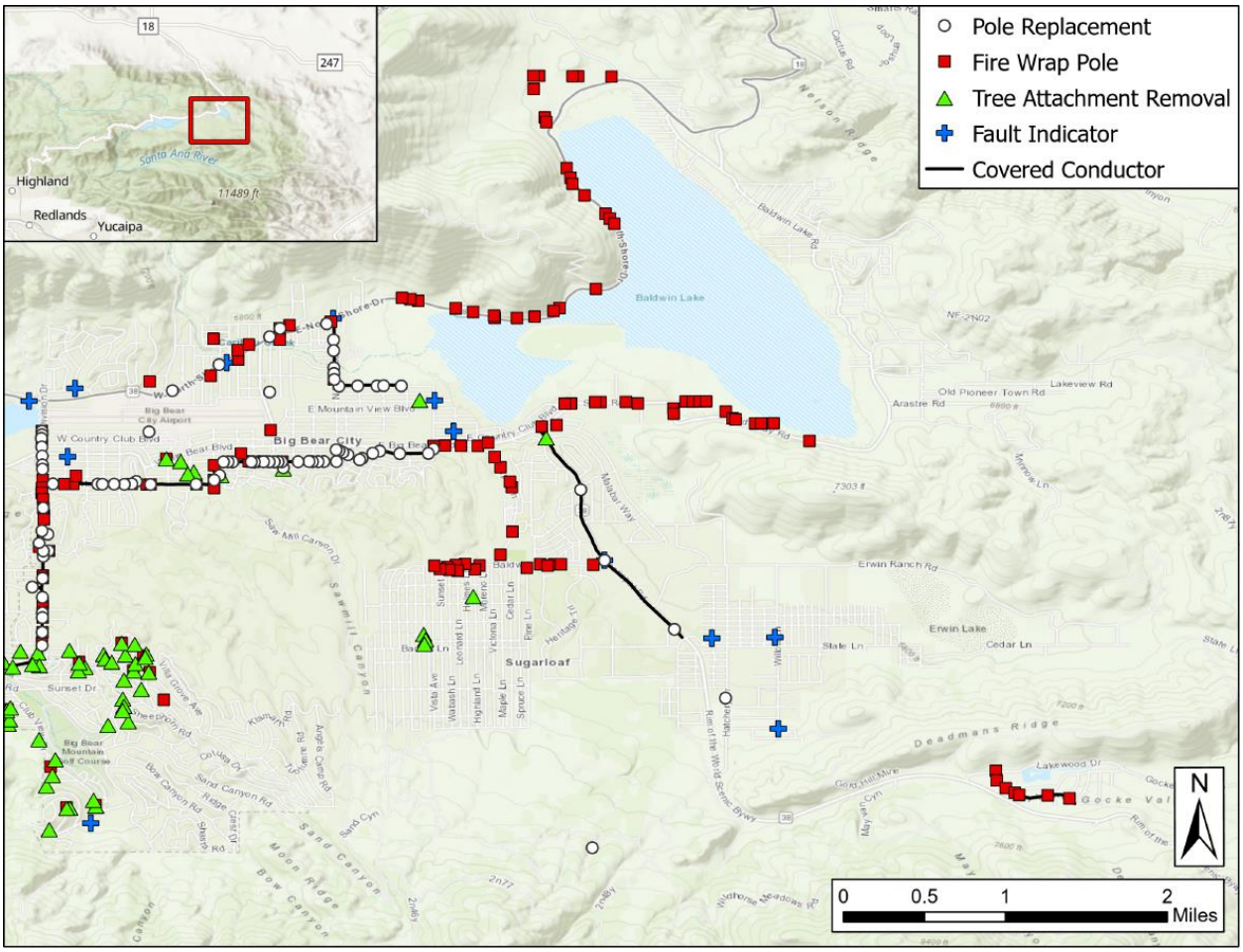
Note: This map was generated from BVES-provided GIS data that was adapted by S&L for field verification activities.

Figure 2-5 — Actual 2022 BVES Field Verified Assets (Map 1 of 2)



Note: This map was generated from BVES-provided GIS data that was adapted by S&L for field verification activities.

Figure 2-6 — Actual 2022 BVES Field Verified Assets (Map 2 of 2)



Note: This map was generated from BVES-provided GIS data that was adapted by S&L for field verification activities.

Figure 2-7 through Figure 2-19 are representative BVES-sampled asset photographs taken by S&L's field verification team.

Figure 2-7 — Representative Photo of Fault Indicators Installed on Pole

Figure 2-8 — Representative Photo of Fault Indicators Installed on Pole

Figure 2-9 — Representative Photo of Installed Covered Conductor

Figure 2-10 — Representative Photo of Installed Covered Conductor

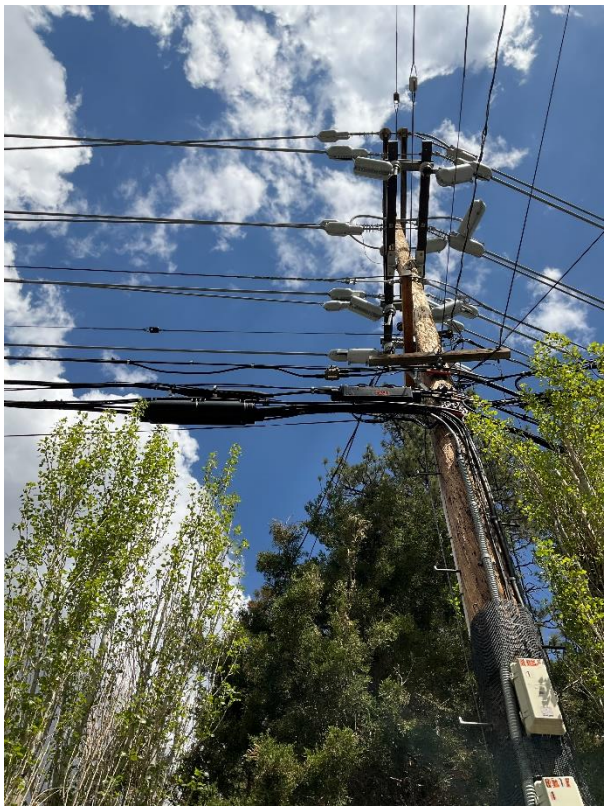


Figure 2-11 — Representative Photo of a Pole Fire Wrap Installation

Figure 2-12 — Representative Photo of a Pole Fire Wrap Installation

Figure 2-13 — Representative Photo of a Pole Fire Wrap Installation

Figure 2-14 — Photo of SCADA System Connected to Pineknot Substation

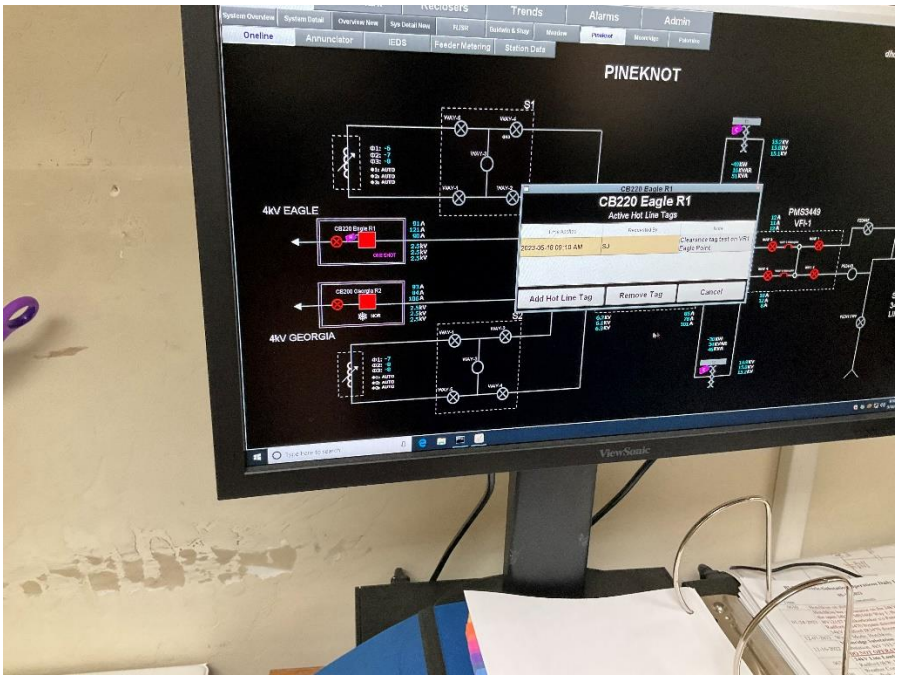


Figure 2-15 — Representative Photo of a Tree Attachment Removal

Figure 2-16 — Representative Photo of a Tree Attachment Removal

Figure 2-17 — Representative Photo of a Pole Replacement (Wood to Composite)

Figure 2-18 — Representative Photo of a Pole Replacement (Wood to Composite)

Figure 2-19 — Representative Photo of a Pole Replacement (Wood to Composite)

2.1.2. Large Volume Quantifiable Goal/Target – Field Verifiable

2.1.2.1. Review of Initiatives

"Large Volume Quantifiable Goal/Target – Field Verifiable" activities are initiatives with over 100 quantifiable assets included in the goal or target that can be verified for completion in the field. The S&L evaluation method for these initiatives can be summarized by the following four-step process:

1. S&L reviewed a sample of each initiative activity, as described in Section 2.1.1.
2. An IBEW-qualified electrical worker from S&L's subcontractor conducted site visits to predetermined locations to confirm installation, work quality, and adherence to applicable utility protocols and standards for each initiative.
3. Additionally, S&L reviewed various documents provided by BVES to help determine completeness.
4. Finally, S&L submitted clarification requests and conducted interviews with BVES SMEs for an understanding of the activities performed.

S&L's findings and assessments for each of this category's activities are provided below. A list of the initiatives included in this assessment category is provided in Appendix B.

2.1.2.1.1. Initiative #7.3.3.3.1 & 7.3.3.3.2: Covered Conductor Replacement Program

Per the 2022 WMP update[3], BVES planned to replace 12.9 miles of overhead sub-transmission (34.5-kV) and distribution (4-kV) bare wire with covered wire in 2022. BVES exceeded its 2022 quantitative goal of 12.9 miles for a total of 12.96 miles hardened. BVES provided the location data of circuit miles hardened at each circuit and substation in 2022.

S&L's field verification team confirmed spans of covered conductor installation at all locations selected for verification, noting no issues. The acceptability of this initiative is achieved by BVES surpassing its circuit-miles covered quantitative target for a total of 12.96 miles, which was confirmed by the field verification team.

2.1.2.1.2. Initiative #7.3.3.3.3: Covered Conductor Replacement Program – Radford

Per the WMP[4]:

"7.3.3.3.3 Covered Conductor Project – Radford Line Sub-transmission Project

"This project includes two components: (1) replacement of the bare wire with covered conductor and (2) replacement of the wood poles with fire resistant poles. The bare wire replacement portion of the project

[3] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[4] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

is discussed and tracked in this initiative. The pole replacement portion of the project is discussed and tracked under initiative Section 7.3.3.6 (Distribution pole replacement and reinforcement, including with composite poles)."

Based on results from the covered conductor pilot programs executed in previous years, BVES planned to replace bare wire with covered conductor on the Radford 34.5-kV line. BVES chose to prioritize this line due to:

1. the line being in the HFTD Tier 3 area, the highest wildfire risk area for all BVES's overhead facilities, and
2. the line being in a densely vegetated area that increases its fire risk potential—and that is difficult to access by vehicle for patrol and inspection.

This initiative, Initiative 7.3.3.3.3, covers the covered conductor installation of the project, while Initiative 7.3.3.6.2 covers the pole replacement portion of the project. The covered conductor installation for the Radford 34.5-kV line was not completed in 2020, 2021, or 2022 due to delays from the US Forest Service (USFS) in providing approval for the appropriate permits. Although BVES provided a communication log covering their efforts to coordinate with USFS[5], which appeared to be significant and substantial with nearly all delays stemming from the USFS, S&L finds that the goal for this initiative was not met.

2.1.2.1.3. Initiative #7.3.3.6.2: Covered Conductor Project – Radford Line

Per the WMP[6]:

" 7.3.3.3.3 Covered Conductor Project – Radford Line Sub-transmission Project

"This project includes two components: (1) replacement of the bare wire with covered conductor and (2) replacement of the wood poles with fire resistant poles. The bare wire replacement portion of the project is discussed and tracked in this initiative. The pole replacement portion of the project is discussed and tracked under initiative Section 7.3.3.6 (Distribution pole replacement and reinforcement, including with composite poles)."

The primary difference between these two initiatives is that one is for the covered conductor and the other is for the wood pole replacement.

The covered conductor replacement for the Radford 34.5-kV line was not completed in 2022, awaiting permits from USFS; this is detailed in Section 2.1.2.1.2. S&L finds that the goal for this initiative was not met.

[5] USFS-Radford Timeline.pdf
[6] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

2.1.2.1.4. Initiative #7.3.3.6.4: Evacuation Route Hardening Program / Distribution pole replacement and reinforcement, including with composite poles

Per the BVES 2022 WMP Update[7], BVES completed the Evacuation Route Hardening Program as a pilot project in 2020 where two technologies were tested: fire-resistant pole wire-mesh wrap and fire-resistant fiberglass poles. Hardening of BVES electrical assets along the evacuation route are prioritized to ensure they do not fail for a safe evacuation. The WMP Update specified a target of 412 pole remediations and replacements in 2022 toward their goal of completion by 2026. BVES remediated 597 poles, surpassing its 2022 target.

BVES provided data for pole replacements and composite reinforcements[8] at various circuits in BVES high-risk wildfire service areas. The supplied data included the install date, circuit, pole number, GPS coordinates, and address or street where the new pole is located at each circuit. S&L's field verification team inspected a sample size of 204 poles and confirmed installation. The field verification team observed one inconsistency in the amount of overlap between the wire-mesh wrap that exposed timber.

S&L reviewed the photos provided by the field verification team displaying the gap showing exposed timber. S&L requested additional documentation (through the S&L RFI spreadsheet[9]) from BVES to submit information covering the installation of the fire wrap. BVES submitted three documents to review[10]. The installation document from the wire-mesh wrap company covers the correct installation of the wire-mesh wrap that specified a 2-in. overlap of the seam from one panel of wire mesh to the next that needs to be securely tucked in around the pole[11]. After reviewing the installation document and additional photos, BVES is found to be compliant with this initiative. The inconsistency in the gap was due to additional structural support attached to the timber that was not a commonality seen on other reviewed photos. As shown in Figure 2-20, the fire wrap appeared to have multiple panels of fire wrap below the structural support, with a 2-in. overlap down to the base of the pole with no additional gaps that adhered to the installation document. The fire wrap present above the support was found to adhere to the installation document as well. The installation document was silent in providing direction on how to appropriately deal with structural attachments.

[7] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[8] 2022 pole replacement data.xlsx
[9] S&L RFI #15
[10] 2019 Fire Mesh Brochure Digital Copy.pdf, Horizontal FM Install FINAL copy.pdf, Performance Evaluation of Fire MeshTM-CCA.pdf
[11] Horizontal FM Install FINAL copy.pdf

Figure 2-20 — BVES Wooden Pole #13585BV Showing Gap in Fire Wrap

2.1.2.1.5. Initiative #7.3.3.12.2: Tree Attachment Removal Program

The BVES tree attachment removal program captures the work to remove legacy service attachments and wires that are affixed to trees and replace with fire-resistant poles and structures. The WMP specified a target of removing 80 poles with tree attachments in 2022. BVES surpassed its target by removing tree attachments from 83 poles.

BVES supplied S&L a detailed spreadsheet[12] that listed the original marker number, replacement pole number, replacement pole type, circuit, date construction was completed, location, and the date of a post install quality control check that included the personnel's initials who performed the check. The field verification team inspected S&L's selected sample size of 68 poles and confirmed installation. Instances of service wires installed at a hard angle was observed at two poles in the selected sample that could result in the insulation deteriorating and potentially creating a fire risk. S&L communicated the findings to BVES through its RFI tracking spreadsheet[13] that was followed up by a re-inspection of the two poles noted to have this potential issue. After re-inspecting, BVES provided S&L its findings that included images of the potential non-compliant poles. S&L found one pole to be compliant after reviewing the images of the poles

[12] TARP 2022.xlsx
[13] S&L RFI #16 – 6/5/2023

supplied by BVES re-inspection that revealed no service wires installed at a hard angle[14]. The landscape of the installation location of the second potential non-compliant pole compromised efforts to reduce slack in the service wire. BVES responded through S&L's RFI spreadsheet, "Due to the elevation of the house to be 40 feet+ lower then pole 15150BV. The service wire that is between pole 15150BV and the house has a lot of slack which is supported by the tree branch." BVES pledged to remediate this issue[15]. S&L concludes this initiative was met.

2.1.2.1.6. Initiative #7.3.3.13: Pole Loading & Replacement Program [Primary]

Per the BVES 2022 WMP Update[16], BVES continuously assesses and remediates distribution poles that are found to be noncompliant with the requirements of California General Orders (GOs) 95 and 165. The WMP specified a target of 165 poles replaced in 2022. BVES surpassed its target, replacing 197 poles.

BVES supplied a detailed spreadsheet[17] that listed the original pole number, replaced pole number, pole type, circuit, date construction was completed, and GPS coordinates. The field verification team inspected S&L's selected sample size of 118 poles and confirmed installation. The inspected poles were found to meet and exceed quality standards. However, a few instances of potential limited climbing space was noted throughout the review. After discussion with BVES and response to RFI no. 17[18], S&L concluded that BVES remains cognizant and will continuously inspect poles to adhere to GO 95 climbing space requirements. No violations were discovered. The acceptability of this initiative is achieved by BVES exceeding their target poles replaced for 2022 with no major quality expectations not being met.

2.1.2.2. Trends and Themes

One common trend was identified during the assessment of the WMP "Large Volume Quantifiable Goal/Target – Field Verifiable" initiatives. Unlike previous years—where summary-level spreadsheets and similar high-level documents were the primary tool to manage and track initiative activities with more detailed records, work orders, and quality procedures either not readily available or difficult to access—this year, detailed quality records and more granular documentation (such as regular inspection reports, checklists, third-party reports, daily/weekly meeting notes, and similar quality records) were provided for review by BVES relatively quickly upon request. BVES implementation of new database software (e.g., iRestore) and further updates to the GIS seems to have improved access to detailed records and documentation. BVES GIS updates, as well as implementation and utilization of iRestore, conveys a commitment to complete its large-volume initiatives. From a documentation perspective, a trend of

[14] 15098BV_1.JPG, 15098BV_2.JPG, 15098BV_3.JPG
[15] S&L RFI #16 – 6/5/2023
[16] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[17] 2022 pole replacement data.xlsx
[18] RFI Response #17, June 5, 2023

substantial improvement in access and retrieval of detailed quality records, work orders, and related documents was identified.

2.1.3. Large Volume Quantifiable Goal/Target – Not Field Verifiable

2.1.3.1. Review of Initiatives

"Large Volume Quantifiable Goal/Target – Not Field Verifiable" activities are initiatives with more than 100 quantifiable assets included in the goal or target that could not be verified for completion in the field. The S&L evaluation method for these initiatives can be summarized by the following three-step process:

1. S&L reviewed a sample of each initiative activity as described in Section 2.1.1.
2. In lieu of physical inspections, S&L reviewed various documents provided by BVES to help determine completeness.
3. Additionally, S&L submitted requests for clarification and conducted interviews with BVES SMEs to confirm our understanding of the activities.

S&L's findings and assessments of each of this category's activities are provided herein. A list of the initiatives included in this assessment category is provided in Appendix B.

2.1.3.1.1. Initiative #7.3.4.1: Asset Management & Inspections – Detailed inspections of distribution electric lines and equipment / Detailed Inspection Program [Primary]

Per the BVES 2022 WMP[19], the detailed inspection of distribution electric lines and equipment is in accordance with GO 165; it consists of the careful examination of equipment and structures, visually and through use of routine diagnostic test, as appropriate, and (if practical and if useful information can be so gathered) opened, with the condition of each rated and recorded.

The detailed inspections are scheduled such that a complete inspection on a portion of the total circuits occurs at least once over a five-year cycle. The detailed inspections of circuits are staggered to spread across the entire system over five years.

BVES provided a spreadsheet documenting the details and patrol inspections performed in 2022.[20] Based on this documentation, S&L concludes BVES personnel performed detailed inspections of 63 structures. Of these, the circuits inspected were Clubview (1 detailed inspection), Northshore (1 detailed inspection), Radford (2 detailed inspections), and Holcomb (24 detailed inspections), and 35 locations without a Circuit identified. These inspections were performed in January, February, April, June, and October. The

[19] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[20] 2022 Inspection Record.xlsx

spreadsheet documents the reporter, date, priority, structure, circuit, inspection type, details, due date, completion date, foreman, and address.

No additional detailed records are available for these inspections. Per a Subject Matter Expert (SME) Interview[21] with Jared Hennen on May 31, 2023, the information is transferred from the Operators and recorded in the iRestore database by the SME. S&L reviewed assets during the interview and confirmed that a Level 1 remediation (Pole 5031BV) was shown as resolved within iRestore. Mr. Hennen stated that, "All the high, important ones get resolved pretty quickly. The missing high voltage sign ones, hard to give it your attention."

Based on the documentation reviewed and discussion with the BVES SME, S&L has determined that the quantifiable 2022 initiative target has been achieved.

2.1.3.1.2. Initiative #7.3.4.4: Asset Management & Inspections – Infrared inspections of distribution electric lines and equipment / UAV Thermography Program

Per the BVES 2022 WMP[22], "BVES completed a full survey of its overhead facilities using these methods [infrared] in 2019. The number of problem areas identified were few and minor. As a result, BVES decided to pause this program." In 2021, BVES initiated the UAV thermography (aerial) component of this initiative, which is intended to continue each year moving forward. In 2022, BVES completed 211 circuit miles of inspection under this component of the initiative.

This work was contracted out to the Davey Resource Group Inc.[23] In part, this contract states, "The intention is to conduct a UAV inspection utilizing high resolution imaging cameras and thermal imaging cameras in 2021 of the BVES system (211 circuit miles) and annually, thereafter. BVES intends to enter a contract for these services for 3 years with an option to renew for 2 additional years." This contract also includes an additional third-party ground patrol and a UAV HD Photography Program. The data collected from these initiatives is managed in a single data source and, as such, the implementation of this initiative is documented in Section 2.1.3.1.6 and 2.1.3.1.5, as part of Initiative #7.3.4.9. During interviews with BVES, the GIS SME demonstrated and walked through their geodatabase[24] and another SME[25] demonstrated the third-party inspection software (MyRowKeeper)[26]. Photos, inspection notes, and other data collected during the UAV thermography and other inspections were viewed. Based on the SME interviews conducted and documentation reviewed, BVES has satisfied this WMP initiative activity.

[21] SME Interview – Jared Hennen, May 31, 2023
[22] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[23] BVES Contract with Davey Resource Group, C#3152-000, UAV Inspection
[24] SME Interview – Eduardo Torres, June 2, 2023
[25] SME Interview – Jared Hennen May 31, 2023
[26] https://bearvalley.myrowkeeper.com/index.cfm

2.1.3.1.3. Initiative #7.3.4.6: Asset Management & Inspections – Intrusive pole inspections / Intrusive Pole Inspection Program

Per the BVES 2022 WMP[27], this initiative monitors the age and structural integrity of existing wood poles through means of a more detailed assessment of the pole's condition such as coring areas of identified damage and visual inspection of the poles apart from pole loading assessments results. The firm Alamon Inc. was given a three-year contract[28] in 2021. The Contract with Alamon defines the scope as, "Intrusive Pole Inspection & Detail Inspection based on the RFP for Sub-Transmission & Distribution Pole Inspection Issued 5/7/2021 (Exhibit A) and Alamon Inc., Response Proposal Dated 5/24/2021 (Exhibit B)."

The 2022 Intrusive Inspection Results were provided via the RFI Excel Spreadsheet[29]. This is the raw data that the third-party inspector, Alamon provided. The inspection results provided include 975 inspection points. Of these, 853 were Resistograph Inspections, 117 were "No Inspections," and 6 were "Visual Only." Per the 2022 Fourth Quarter Report[30], the 2022 target was 850 intrusive inspections. Since BVES was able to complete 853 intrusive inspections in 2022, this target was met.

Of the Resitographs performed, 17 were identified as Priority, with 0-27% Strength remaining, and 13 were identified as Reject, with 36-67% strength remaining. Per the BVES 2022 WMP[31], when the inspection determines that the pole no longer has the required strength, the pole is scheduled for replacement. Replacement of poles is addressed in Initiative 7.3.3.13 - "Pole loading infrastructure hardening and replacement program based on pole loading assessment program."

Based on the above information and the verification that BVES met their target of 850 intrusive inspections; BVES has satisfied this WMP initiative activity.

2.1.3.1.4. Initiative #7.3.4.7: Asset Management & Inspections – LiDAR inspections of distribution electric lines and equipment / LiDAR Inspection Program [Primary]

In accordance with the BVES 2022 WMP[32], BVES conducts one Light Detection and Ranging (LiDAR) sweep per year to evaluate the effectiveness of clearance efforts and identify potential wildfire hazards. This sweep covers 211 circuit miles. BVES awarded the multiyear contract for this work to Davey Tree Expert Co. on July 15, 2019. In July 2022, this contract was extended via Change Order to July 14, 2024[33].

[27] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[28] C#3157-0000 Intrusive Poles Inspection
[29] Intrusive Pole 2022.xls and Intrusive Pole 2022.kmz
[30] BVES Quarterly Notification_QNL_Q4_RO.pdf
[31] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[32] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[33] LiDAR Inspection Contract-C#3079-001.pdf

In 2022, the LiDAR sweep occurred before July 1, 2022, when the invoice[34] was submitted stating that Acquisition was 100% complete and classification was 60% complete.

The LiDAR data was provided in the 2022 LiDAR Inspection[35] spreadsheet. Each possible issue is recorded in this spreadsheet. Clearance levels were classified as between 0 and 18 in., 18 and 48 in., and 48 and 72 in. Those documenting encroachment of beyond 48 in. are not considered high-priority violations. In 2022, based on the data provided in the 2022 LiDAR Inspection[36] spreadsheet, 33 instances of Encroachment Clearance Level 1 (0-18 inches) were identified, and 574 instances of Encroachment Clearance Level 2 (18-48 inches) were identified. The spreadsheet also includes the Section Name, Parent Section, Feeder, Phase Code, Operating Voltage, Overhead Voltage, and X and Y coordinates.

Per RFI response[37], once BVES receives the spreadsheet of potential violations, the pre-inspector goes into the field to validate the findings. The pre-inspector's findings and remediations were provided via a spreadsheet titled, "LiDAR findings and prescriptions[38]". This file contains exclusively confirmed violations, of which there were 16 violations for Clearance Level 1, from the 33 encroachments identified via LiDAR and 160 violations for Clearance Level 2 from the 574 encroachments identified via LiDAR. Per the RFI response, once the potential violations are confirmed, crews are sent out to trim and remediate any issues.

Based on the documentation reviewed and the RFI response, BVES satisfied this initiative activity in 2022, and our review of the documentation indicates that the required LiDAR sweep was conducted by Davey in 2022.

2.1.3.1.5. Initiative #7.3.4.9.1: Asset Management & Inspections – Third Party Ground Patrol

As identified in the BVES 2022 WMP[39], this initiative consists of an additional independent (third-party) patrol inspection—beyond that required by GO 165—of the entire overhead system.

Per the 2022 Fourth Quarter Report[40], the target goal for this quantitative initiative was to inspect 211 circuit miles. The 2022 Fourth Quarter Report[41] states that 211 circuit miles were scheduled for 2022 and that BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting third party ground patrol inspections

[34] LiDAR Invoice #916776026
[35] 2022 LiDAR Inspection.xlxs
[36] 2022 LiDAR Inspection.xlxs
[37] RFI Response #19, June 7, 2023
[38] LiDAR finding and prescriptions.xlsx
[39] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[40] BVES Quarterly Notification_QNL_Q4_RO.pdf
[41] BVES Quarterly Notification_QNL_Q4_RO.pdf

of the entire system annually. This was verified based on the Davey invoice "Visual Inspection of Overhead Facilities[42]," dated May 2022.

S&L reviewed Davey's inspection results[43]. These results include 117 failed inspections and 6567 total inspections. The entirety of the third-party inspection results is maintained in a database online, on myrowkeeper.com[44]. Access was granted to this database by BVES and Davey Resource Group – a BVES third-party inspection company. It includes 6538 total datapoints for 2022, and of these, 117 were marked as "Fail." The failure data aligns with the database provided to S&L. This database also includes photos in addition to the notes and issues included in the exported data. The photos from 20 failed inspections were viewed using myrowkeeper.com. In each instance, photos were available, and where applicable, aligned with the failure notes such as "top of pole split," "cross arm decay," and "old pole still here." These photos include both thermography and HD aerial images. Based on the documentation reviewed and the Davey invoice, BVES has satisfied this WMP initiative activity.

2.1.3.1.6. Initiative #7.3.4.9.2: Asset Management & Inspections – UAV Thermography Program

As identified in the BVES 2022 WMP[45], this initiative is intended to help ensure inspection is comprehensive and provides a top-down view of sub-transmission and distribution facilities; thereby, complimenting other inspections and reducing the risk of non-compliant issues going undiscovered. This reduces the risk of ignition probability. Per the UAV inspection proposal contract,[46] 211 circuit miles is the approximate size of the entire BVES facility, including both the 34.5-kV and 4-kV lines and facilities. The 2022 Fourth Quarter Report[47] states that 211 circuit miles were scheduled for 2022 and that 211 circuit miles were completed in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually. This was verified based on the Davey invoice[48] which states, "Complete UAV Inspections and Analysis (Year 2 of 3)."

Additional details on the data reviewed is included in Section 2.1.3.1.5. Based on the documentation reviewed and the Davey invoice, BVES has satisfied this WMP initiative activity.

[42] Davey Resource Group Invoice #916642063, May 27, 2022
[43] 2022 BVES 3rd party and UAV inspection.xlsx
[44] https://bearvalley.myrowkeeper.com/index.cfm
[45] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[46] C#3152-000 UAV Inspection.pdf
[47] BVES Quarterly Notification_QNL_Q4_RO.pdf
[48] Davey Resource Group Invoice #916971270, August 22, 2022

2.1.3.1.7. Initiative #7.3.4.11: Asset Management & Inspections – Patrol inspections of distribution electric lines and equipment / Patrol Inspection Program [Primary]

Per the BVES 2022 WMP[49], a "patrol inspection" is a visual inspection designed to identify obvious problems and hazards. These patrols are designed to identify gross defects. The initiative aligns with GO 165, which requires utilities to execute careful, visual inspections of overhead electric distribution lines and equipment.

BVES provided all the patrol inspections performed in 2022[50]. Based on this documentation, 18 patrol inspections were performed that year from February through December. None of the patrol inspection records identified gross defects or any other issues.

The documentation gives satisfactory evidence that BVES conducted the required inspections during the relevant time period and, therefore, fulfilled the initiative activity in 2022.

2.1.3.1.8. Initiative #7.3.4.13: Asset Management & Inspections – Pole loading assessment program to determine safety factor / Pole Loading & Replacement Program

Per the BVES 2022 WMP[51], this activity complements Initiative 7.3.3.13, "Pole loading infrastructure hardening and replacement program based on pole loading assessment program," in determining deficiencies and remediation needs for pole maintenance and replacement work. See Section 2.1.2.1.6 for the completion of activities which apply to this initiative. On the basis of the review documented in that section, which relies on the spreadsheet containing pole replacement data[52], S&L considers this WMP initiative met.

2.1.3.1.9. Initiative #7.3.5.2: Vegetation Management & Inspections – Detailed inspections of vegetation around distribution electric lines and equipment / Detailed Inspection Program

Per the BVES 2022 WMP[53], this initiative consists of detailed inspections of vegetation around individual distribution electric lines, equipment, and structures to determine that the established vegetation clearances have been met. Maintaining proper clearance standards reduces the risk of ignition as a result of contact between bare wire and vegetation. Inspections are conducted throughout the BVES service territory every five years at a minimum and are planned to occur before scheduled vegetation clearance crew visits[54]. The

[49] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[50] 2022 Patrol Inspections.pdf
[51] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[52] Poles Assessed 2022.xlsx
[53] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[54] BVES GO 165 Compliance Plan.pdf

initiative's target number for the performance of these inspections is 29 circuit miles and the actual circuit miles inspected, indicated by BVES, was 32.41 miles. BVES SME discussion and demonstration[55] clarified how this circuit mileage was determined as well as how inspection notes, photos, and other data are documented via the iRestore database.

Based on the BVES SME discussions and demonstrations, S&L considers this initiative's goal to be met.

2.1.3.1.10. Initiative #7.3.5.7: Vegetation Management & Inspections – LiDAR inspections of vegetation around distribution electric lines and equipment / LiDAR Inspection Program

The BVES 2022 WMP[56] Vegetation Management & Inspections Category includes the LiDAR Inspection Program initiative. This initiative includes inspection of vegetation around distribution electric lines and equipment via LiDAR. Conformance with the BVES LiDAR Inspection Program target required 211 circuit miles to be inspected. S&L reviewed the BVES third party LiDAR inspection results[57] and the contractual agreements[58]. S&L also conducted meetings with BVES SMEs for further clarification. Additionally, supported by explanation and demonstration by BVES SMEs[59], S&L confirmed the LiDAR inspections, notes, and photos via the third-party inspection database, MyRowKeeper[60], to which S&L had been previously granted access.

To conclude, based on the BVES SME discussions, database access / demonstration, invoices[61], and contractual information reviewed, the initiative goal for 7.3.5.7 "LiDAR Inspection Program" was met.

2.1.3.1.11. Initiative #7.3.5.9.1 & 7.3.5.9.2: Vegetation Management & Inspections – Other discretionary inspections of vegetation around distribution electric lines and equipment / UAV & Ground Patrol

Initiative 7.3.5.9.1 and 7.3.5.9.2 of the BVES Vegetation Management & Inspections Category mandate discretionary inspections of vegetation around distribution electric lines and equipment through Unmanned Aerial Vehicle (UAV) and Ground Patrol activities. Per the BVES 2022 WMP[62], the inspection target for this initiative was to survey a total of 211 circuit miles and, per BVES, this target was achieved.

[55] BVES GIS Map/Grid Discussion meeting Thu 6/1/2023 11:45 AM - 12:00 AM / BVES iRestore Demo, 6/15/2023
[56] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[57] 2022 LiDAR Inspection.xlsx
[58] C#3079-001 LiDAR Inspectopm.pdf
[59] BVES GIS Map/Grid Discussion meeting Thu 6/1/2023 11:45 AM - 12:00 AM
[60] https://bearvalley.myrowkeeper.com/index.cfm
[61] LiDAR invoices.pdf
[62] BVES WMP Revised 2022 Update Version 1, May 6, 2022

BVES reported that they surveyed and inspected 211 circuit miles. S&L validated the 211 miles through interviews and database access / demonstrations (through MyRowKeeper[63]) with BVES SMEs, as well as confirmation through an examination of data, records[64], and the executed contracts provided by BVES[65]. Some records were validated using the MyRowKeeper third-party database where inspection notes, photos, and any relevant findings were recorded. The records appeared to be accurate and complete following a detailed review. As documented by the provided work orders and inspection figures for UAV and ground patrol, the initiative goal was met.

2.1.3.1.12. Initiative #7.3.5.11: Vegetation Management & Inspections - Patrol inspections of vegetation around distribution electric lines and equipment / Patrol Inspection Program

Per the BVES 2022 WMP Update[66], Vegetation Management & Inspections Category, this initiative activity consisted of patrol inspections of vegetation around distribution electric lines and equipment. Maintaining proper clearance standards reduces the risk of ignition as a result of contact between bare wire and vegetation. Inspections are conducted throughout the BVES service territory every five years at a minimum and are planned to occur before scheduled vegetation clearance crew visits[67]. The Patrol Inspection Program initiative's target number for the performance of these inspections is 211 circuit miles, and the actual circuit miles surveyed, indicated by BVES, was 255.16 miles.

BVES SME discussion and demonstration[68] clarified how this circuit mileage was determined as well as how inspection notes, photos, and other data are documented via the iRestore database.

Based on the BVES SME discussions and demonstrations, S&L considers this initiative's goal to be met.

2.1.3.1.13. Initiative #7.3.5.20: Vegetation Management & Inspections – Vegetation management to achieve clearances around electric lines and equipment / Enhanced Vegetation Management Program

Per the BVES 2022 WMP[69], Vegetation Management & Inspections Category, this initiative activity consisted of providing adequate vegetation clearances around electric lines and equipment. The goal of this initiative was to clear 72 circuit miles of any encroaching vegetation and, according to BVES, the actual cleared circuit miles was 86.84 miles.

[63] https://bearvalley.myrowkeeper.com/index.cfm
[64] 2022 BVES 3rd Party and UAV Inspection.xlsx
[65] C#3152-000 UAV Inspection.pdf
[66] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[67] BVES GO 165 Compliance Plan.pdf
[68] BVES GIS Map/Grid Discussion meeting Thu 6/1/2023 11:45 AM - 12:00 AM / BVES iRestore Demo, 6/15/2023
[69] BVES WMP Revised 2022 Update Version 1, May 6, 2022

Per discussion and demonstration of the BVES GIS (Geographic Information System) software (ArcGIS / ArcMap)—used for mapping activities—as well as the iRestore database, the process for determining circuit miles was clarified. Essentially, using the GIS software, a grid overlay is placed onto the Bear Valley Territory map and a statistics tool is utilized to determine approximate circuit miles based on BVES asset geodata (i.e., pole spans). The BVES SME, at the instruction of S&L, showed various 2022 poles that had received vegetation management.[70] Inspection notes and photos as well as other data was reviewed. This demonstration and the high-level vegetation management QC document[71] coupled with the vegetation management contract[72] provided satisfactory evidence that BVES fulfilled the initiative activity in 2022.

2.1.3.2. Trends and Themes

S&L identified several trends for the assessment of the WMP "Large Volume Quantifiable Goal/Target – Not Field Verifiable" initiatives:

- For many initiatives, no documented procedures or processes governing the performance and control of WMP initiatives were available (i.e., initiatives 7.3.4.4, 7.3.4.6, 7.3.4.7, 7.3.4.9.1, 7.3.4.9.2, 7.3.4.13, 7.3.5.7, 7.3.5.9.1 & 7.3.5.9.2, and 7.3.5.20).
- For most initiatives, BVES did not appear to have a formal written process to control and maintain quality records (e.g., report forms, inspection checklists, work orders) and other documentation.
- Summary-level spreadsheets and similar high-level documents were often used to manage and track initiative activities; however, in many cases, detailed quality records, work orders, and more granular documentation (such as regular inspection reports, checklists, third-party reports, daily/weekly meeting notes, and similar quality records) were provided for review by BVES relatively quickly upon request. This was a significant improvement from previous years.

2.1.4. Small (Less Than 100 Times) Volume Quantifiable Goal/Target

2.1.4.1. Review of Initiatives

"Small Volume Quantifiable Goal/Target" activities are initiatives with less than 100 quantifiable assets included in the goal or target. Some initiative activities can be verified in the field while others are not field-verifiable. The S&L evaluation method for these initiatives can be summarized by the following four-step process:

1. S&L attempted to review all initiative assets; however, in some cases, the available time for this assessment only allowed a sample of assets to be assessed, as described in Section 2.1.1.

[70] S&L/BVES Circuit Mileage Review, Friday, 6/2/2024 4:00 PM – 5:00 PM
[71] BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1.pdf
[72] C#3095-002 Vegetation Management.pdf

2. Where feasible, an IBEW qualified electrical worker from S&L's subcontractor (ICON Utility Services) conducted site visits to predetermined assets and locations to confirm installation, work quality, and adherence to applicable utility protocols and standards for each of these initiatives.
3. Additionally, S&L reviewed various documents provided by BVES to help determine completeness.
4. Finally, S&L submitted clarification requests and conducted interviews with BVES SMEs to confirm understanding of the activities performed.

S&L's findings and assessments of each of this category's initiative activities are provided herein. A list of the initiatives included in this assessment category is provided in Appendix B.

2.1.4.1.1. Initiative #7.3.2.3: Situational Awareness Hardware Program / Fault indicators for detecting faults on electric lines and equipment

Implementing fault indicators to detect and isolate faults on electrical lines and service equipment reduces the risk of ignition by having the ability to disable reclosers during high-risk conditions. Per the Q4 WMP update, BVES planned to install fault indicators in Q3 2022 with a target to install 50 by the end of 2022[73]. BVES surpassed its 2022 goal by installing 99 fault indicators. BVES supplied a detailed spreadsheet[74] that listed each fault indicator's location, installation date, and poles spanned. The installed fault indicator's locations were viewed using Google Earth Pro by S&L to cross-reference with the GPS coordinate data supplied by BVES[75].

The qualified electrical worker (QEW) field team verified 81 fault indicators that covered 27 pole spans at various circuits in BVES's service area to confirm installation and observe the quality of work. After reviewing the field verification team's notes, S&L found a discrepancy between BVES's listed install locations that resulted in two pole spans not confirmed to be installed. These pole spans were listed to have six fault indicators installed at the Erwin Lake Circuit on October 1, 2022 by BVES; but based on the field verification results, these FI's were noted to not be installed.

S&L requested that BVES verify installation by providing photo evidence of the pole number (i.e., #13661BV and #14028BV) and the installed fault indicators. BVES was able to provide the requested photos that confirmed installation, as shown in Figure 2-21 and Figure 2-22 [76]. S&L concludes this initiative was met.

[73] BVES Quarterly Notification_QNL_Q4_RO.pdf
[74] Fault Indicator 2022.xls
[75] Fault Indicators 2022.kmz
[76] 13661BV_1.JPG, 13661BV_2.JPG, 14028BV_1.JPG, 14028BV_2.JPG, and 14028BV_3.JPG

Figure 2-21 — BVES Wooden Pole #13661BV and installed Fault Indicators

BVES Wooden Pole #13661BV; photo provided by BVES

BVES Wooden Pole #13661BV Showing Installed Fault Indicators; photo provided by BVES

Figure 2-22 — BVES Wooden Pole #14028BV and installed Fault Indicators

BVES Wooden Pole #14028BV; photo provided by BVES

BVES Wooden Pole #14028BV Showing Installed Fault Indicators from two directions; photo provided by BVES

2.1.4.1.2. Initiative #7.3.3.9.1: Grid Automation Program [Primary] / Installation of system automation equipment

BVES supplied S&L with images of its SCADA system application software at three substations (Moonridge, Palamino, and Pineknot) that were installed in 2022[77]. S&L reviewed images of the operating workstation in the SCADA software actively running on BVES computers. These images revealed "tabs" in the workstation that further displayed relevant parameters to continuously monitor the status at each substation. A "FLISR" tab was also located in the SCADA System that aligns with the goals set forth in Initiative #7.3.3.9.2: Grid Automation Program // FLISR; completed in 2022. S&L's field verification team also confirmed the three SCADA systems for each substation and verified that the system is communicating with its respective substation onsite at the BVES offices. S&L concludes this initiative was met.

2.1.4.1.3. Initiative #7.3.4.15: Asset Management & Inspections - Substation inspections/ GO-174 Substation Inspection Program [Primary]

In accordance with the BVES 2022 WMP[78], BVES plans and performs monthly inspections of each substation. These inspections are mandated by the California Public Utilities Commission (CPUC) through GO 174 facilities inspections. The BVES 2022 WMP[79], anticipated 144 substation inspections in 2022; however, if monthly inspections of BVES's 13 substations were conducted, 156 substation inspections should have been performed. Substation inspection reports were provided for each of the 13 substations. The reports document the following information:

- Date, station, inspector name, and time of reading
- Ambient temperature
- Transformer data (number, present and maximum temperature, oil level, gas pressure)
- Voltage regulator data (number, position indictors, indicator range [low and high], present counter, previous counter, and oil clarity)
- Recloser and device data (circuit name, present counter, previous counter, peak/current amps [GND, 1-2, 3-4, 5-6], and battery [no load and load])
- Metering data (circuit name, kW, and kWh)
- Notes

The reports also include a general condition checklist and space for notes. BVES provided a total of 152 inspection records, above the target of 144, but less than the 156 anticipated if each substation were inspected monthly. In the RFI response[80], justification was provided for the four missing reports as follows:

[77] MOONRIDE.jpg, PALAMINO.jpg, PINEKNOT.jpg
[78] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[79] BVES WMP Revised 2022 Update Version 1, May 6, 2022 (page 92, Table 5-3.1, Substation Inspection Program)
[80] RFI Response #3 5/19/23

"Bear Mountain: no access due to snow; Lake: Could not find the Inspection (two missing inspections); Village: Substation testing in August. "

One inspection was performed each month for each substation with the exception of the above. S&L reviewed the substation inspection sheets for each of the substations. They included the required data and notes such as "No fire extinguisher" and "Weeds. Water Inside Meter Cabinet," and "Both drive through gates are damaged." For the identified substation inspection issues, BVES was requested to clarify how issues are tracked to resolution when issues are identified during a substation inspection. They provided the following in the RFI response[81], "Lake: Fire Ext. is re-located to the cabinet, Palomino: Gate damage due to storm, sub was secure, permanent repairs complete, Maple: water removed." Essentially, BVES reviews the inspection records and notes / findings and then implements corrective actions accordingly.

After review of the provided documentation, S&L confirms that this initiative of 144 Substation Inspections in 2022 was met and identified issues are being resolved.

2.1.4.1.4. Initiative #7.3.5.6: Vegetation Management & Inspections - Improvement of inspections / Quality Control of Inspections

In accordance with the BVES 2022 WMP[82], BVES Initiative 7.3.5.6 "Quality Control of Inspections," Vegetation Management & Inspections Category, has a small volume quantitative target measured in "Number of Vegetation Management Audits."

BVES targeted four vegetation management audits in 2022. According to supporting documentation provided by BVES personnel, a total of four vegetation management audits were performed[83]. These four vegetation management audit documents were labeled "quarterly updates" as provided by BVES; however, per S&L request for clarification[84], "the quarterly updates are considered part of the audits that are provided for the vegetation management program." The quarterly updates did not appear to contain information and validation regarding implementation of quality processes as expected in typical audit record. For example, there was no validation of effective implementation of controls, planning, processes, or methods to ensure quality and mitigate risk of error, nor was there any inclusion of typical quality audit findings or reports. Though not a typical quality audit within a common QA program, these documents do contain records of the activity that had occurred in the previous quarter. While the quarterly updates could be considered an "audit" by definition, these documents do not appear to contain information typically expected in a quality audit. However, without any specific requirements or procedures in the controlling vegetation management

[81] RFI Response #4 5/19/23
[82] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[83] Vegetation Management Quarterly Update Q1 2022.pdf, Vegetation Management Quarterly Update Q2 2022.pdf, Vegetation Management Quarterly Update Q3 2022.pdf, Vegetation Management Quarterly Update Q4 2022.pdf.
[84] S&L Request for Clarification #8, submitted 5/25/2023

quality program[85], S&L concludes that this initiative was met. In other words, because BVES does not have a formal quality program or process that provides specific requirements for what constitutes an audit, and because BVES technically performed four vegetation management audits in 2022, the target goal for this initiative was met.

2.1.4.1.5. Initiative #7.3.5.13: Vegetation Management & Inspections - Quality assurance / quality control of vegetation inspections / Quality Control of Inspections

In accordance with the BVES 2022 WMP[86], BVES Initiative 7.3.5.13 "Quality Control of Inspections," Vegetation Management & Inspections Category, has a small volume quantitative target measure in "Number of Quality Control Reviews Conducted."

The targeted number of Quality Control Reviews Conducted for 2022 was 72, and the actual number of reviews achieved was 132. According to the vegetation management quality program[87], "the VM QC Check program is designed to check compliance with VM standards in the field. In particular, the program should check VM clearance contractor work. The Wildfire Mitigation & Reliability Engineer will administer the program." According to the spreadsheet recording quality control inspections[88], various BVES personnel performed these quality control inspections, and it was concluded that the initiative goal was met, achieving a total of 132 individual reviews, and exceeding the expectation[89]. Based on the review of these documents, it was concluded that the target for this initiative was met.

2.1.4.1.6. Initiative #7.3.5.16: Vegetation Management & Inspections - Removal and remediation of trees with strike potential to electric lines and equipment / Enhanced Vegetation Management Program [Primary]

Per the BVES 2022 WMP[90], Initiative 7.3.5.16: "Enhanced Vegetation Management Program [Primary]" activities include the removal and remediation of trees with strike potential to electric lines and equipment. This initiative had a goal of 88 tree removals and remediations. The number of removals by each quarter was recorded and verified in VM Audit, located in the Vegetation Management Quarterly Update Q1, Q2, Q3, and Q4[91]. Based on these records and the provided third-party contract with The Original Mobray's

[85] BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1.pdf
[86] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[87] BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1.pdf
[88] 2022 Vegetation QA.QC.xlsx
[89] 7.3.5.13 Quality Control of inspections.pdf
[90] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[91] Vegetation Management Quarterly Update Q1, Q2, Q3, and Q4.pdf

Tree Service, Inc.[92], it was verified that BVES met and exceeded the initiative goal, totaling 147 removed and remediated trees.

2.1.4.1.7. Initiative #7.3.5.17: Vegetation Management & Inspections - Substation inspection / GO-174 Substation Inspection Program

Per the BVES 2022 WMP[93], Initiative 7.3.5.17: "GO-174 Substation Inspection Program" has a small volume quantitative target measured in "Number of Substations Inspected." This initiative includes overlapping activities with initiatives 7.3.4.15 (Section 2.1.4.1.3) and 7.3.5.2 (Section 2.1.3.1.9). See these initiative evaluations for more details.

The BVES 2022 WMP[94] anticipated 144 substation inspections in 2022; however, with the 13 substations, 156 substation inspections should have been performed. Ultimately, BVES provided a total of 152 inspection records, above the target of 144, but less than the 156 anticipated if each substation were inspected monthly. In the RFI response[95], justification was provided for the four missing reports as follows: "Bear Mountain: no access due to snow; Lake: Could not find the Inspection (two missing inspections); Village: Substation testing in August. "

One inspection was performed each month for each substation with the exception of the above. S&L reviewed the substation inspection sheets for each of the substations. They included the required data and notes. BVES was requested to identify how issues are tracked to resolution when issues are found during a substation inspection. BVES provided the following in the RFI response[96]: "Lake: Fire Ext. is re-located to the cabinet, Palomino: Gate damage due to storm, sub was secure, permanent repairs complete, Maple: water removed." Essentially, BVES reviews the inspection records and notes / findings, and implements corrective actions accordingly.

After review of the provided documentation, S&L confirms that this initiative for 2022 was met.

2.1.4.1.8. Initiative #7.3.9.2: Emergency Planning & Preparedness – Community Outreach, Public Awareness, and Communications Efforts / Emergency Preparedness & Response Program

The 2022 BVES initiative for Community Outreach, Public Awareness, and Communications Efforts / Emergency Preparedness & Response Program is to continue to take actions to identify and contact key community stakeholders; increase public awareness of emergency planning and preparedness information;

[92] C#3095-002 Vegetation Management.pdf
[93] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[94] BVES WMP Revised 2022 Update Version 1, May 6, 2022 (page 92, Table 5-3.1, Substation Inspection Program)
[95] RFI Response #3 5/19/23
[96] RFI Response #4 5/19/23

and design, translate, distribute, and evaluate effectiveness of communications taken before, during, and after a wildfire, including Access and Functional Needs populations and Limited English Proficiency populations in particular. The BVES processes for meeting this WMP initiative are fulfilled by Revision 2 of the BVES emergency response plan and Revision 1 of the BVES public safety power shutoff (PSPS) procedure. These documents provide guidance and a tabulated list for the BVES customer support representatives to follow and has a guidance template for content, media usage, and communication with the receiving community recipients.

S&L reviewed community outreach efforts that were focused on PSPS events or potential wildfire threats. S&L reviewed several forms of communications including social media posts, BVES website content[97], radio script readings, newspaper advertisements, and community outreach brief[98]. In each instance, it is evident that BVES is communicating information to its stakeholders residing in its service area. Review of the requested WMP/PSPS community engagement examples, as well as publicly available statements, demonstrated that community outreach and communication efforts occurred in 2022.

Based upon the BVES 2022 annual quantity target of 360 engagements and the BVES 2022 quantity actual progress of 712, it is evident that BVES has reached its initiative goal of community outreach, public awareness, and communication efforts.

2.1.4.1.9. Initiative #7.3.10.1: Community Outreach Program / Community engagement

BVES collaborates with its small knit community to ensure information relating to PSPS/WMP is communicated properly and efficiently. BVES specified a target number of 360 engagements that was surpassed while also staying under budget. BVES provided a list of all the various methods of communication that were conducted in 2022.

S&L reviewed community outreach efforts that were focused on PSPS events or potential wildfire threats. S&L reviewed each listed method of communication for completeness which included social media posts, radio script readings, newspaper advertisements, and community outreach brief[99]. In each instance, it is evident that BVES is effectively communicating information to its stakeholders residing in its service area. The acceptability of this initiative is achieved by BVES utilizing various forms of communication throughout 2022 that displays continuous efforts to inform the public of PSPS/WMP events.

[97] www.bvesinc.com/safety/public-safety-power-shutoff
[98] BVE Text Communication Ad 5.0625 x 7.1875 PRESS.pdf, KBHR AD BVES_Inc_Text_Alert_Communication.wav, Public Safety Power Shutoff Video for Facebook 2022.docx. Video on our website for PSPS from 2022.docx
[99] BVE Text Communication Ad 5.0625 x 7.1875 PRESS.pdf, KBHR AD BVES_Inc_Text_Alert_Communication.wav, Public Safety Power Shutoff Video for Facebook 2022.docx. Video on our website for PSPS from 2022.docx

2.1.4.2. Trends and Themes

S&L identified several trends for the assessment of the "Small Volume Quantifiable Goal/Target" initiatives:

- For many initiatives, no documented procedures or processes governing the performance and control of WMP initiatives were available (i.e., initiatives 7.3.2.3, 7.3.3.9.1, 7.3.5.16, 7.3.9.2, and 7.3.10.1).
- For most initiatives, BVES did not appear to have a formal written process to control and maintain quality records (e.g., report forms, inspection checklists, work orders) and other documentation.
- Summary-level spreadsheets and similar high-level documents were often used to manage and track initiative activities; however, in many cases, detailed quality records, work orders, and more granular documentation (such as regular inspection reports, checklists, third-party reports, daily/weekly meeting notes, and similar quality records) were provided for review by BVES relatively quickly upon request. This was a significant improvement from previous years.

2.1.5. Qualitative Goal/Target

2.1.5.1. Review of Initiatives

"Qualitative Goal/Target" initiative activities are initiatives without a quantifiable goal or target that were conducted in 2022. S&L reviewed various documents provided by BVES to help determine whether the objectives of the initiative activities were met. Additionally, S&L submitted clarification requests and conducted interviews with BVES SMEs for an understanding of the activities performed. S&L's findings and assessments of each of this category's initiative activities are provided herein. A list of the initiatives included in this assessment category is provided in Appendix B.

2.1.5.1.1. Initiative #7.3.1.1: Risk Assessment & Mapping - A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment / Ignition Probability & Wildfire Consequence Mapping (Primary)

BVES did not set a specific goal for any of the Risk Assessment & Mapping initiatives. BVES stated that 7.3.1.1-7.3.1.5 are all part of one program to address Risk Assessment & Mapping. In 2022, BVES engaged Technosylva to provide risk assessment and mapping tools. Technosylva provided a statement of work and cost proposal[100]. Technosylva lists the following utility risk forecasting tools in its Wildfire Analyst Enterprise Subscription:

- FireSim – on demand, real time fire spread predictions and impact analysis
- FireCast – wildfire risk forecasting for customer assets and service territories using daily weather prediction integration to support PSPS and response operations

[100] Technosylva-BVES_2022_SOW.pdf

- Wildfire Risk Reduction Model (WRRM) – asset risk analysis using historical weather climatology to support Wildfire Mitigation Plan (WMP) development and mitigation planning

BVES signed a contract to receive this service from Technosylva on May 9, 2022[101]. Additionally, BVES completed risk spend efficiency calculations for each of their risk mitigation activities[102] and a fire risk ranking for each of their circuits[103].

Since no specific goal was set for this initiative in 2022 and, after reviewing the contract for services and subsequent deliverables, it is clear that the objectives of the initiative were met by BVES.

2.1.5.1.2. Initiative #7.3.1.2: Risk Assessment & Mapping - Climate-driven risk map and modelling based on various relevant weather scenarios / Ignition Probability & Wildfire Consequence Mapping

As stated in Section 2.1.5.1.1, BVES considers all Risk Assessment & Mapping initiatives as one program. This program includes the modeling tools offered by Technosylva[104], the risk-spend efficiency calculations for each mitigation activity[105], and the fire risk rating of each circuit[106].

There was no goal set for this initiative in 2022, but a climate-driven risk map would be included in the capabilities of Technosylva, which may be used in the future to satisfy a WMP goal. Since there was no goal set, BVES is in compliance with the WMP for this initiative.

2.1.5.1.3. Initiative #7.3.1.3: Risk Assessment & Mapping - Ignition probability mapping showing the probability of ignition along the electric lines and equipment / Ignition Probability & Wildfire Consequence Mapping

As stated in Section 2.1.5.1.1, BVES considers all Risk Assessment & Mapping initiatives as one program. This program includes the modeling tools offered by Technosylva[107], the risk-spend efficiency calculations for each mitigation activity[108], and the fire risk rating of each circuit[109].

No goal was set in 2022 for Ignition probability mapping showing the probability of ignition along the electric lines and equipment. Progress was made through the agreement with Technosylva who will be able to provide this service specifically through the use of FireCast, which provides territory wide and specific asset

[101] C#3234-000 REV For Signature-TSYL_SIGNED1.pdf
[102] BVES Risk Registry 2022-3-11.xlsm
[103] FireSafetyCircuitMatrix 2023-1-10.xlsx
[104] Technosylva-BVES_2022_SOW.pdf
[105] BVES Risk Registry 2022-3-11.xlsm
[106] FireSafetyCircuitMatrix 2023-1-10.xlsx
[107] Technosylva-BVES_2022_SOW.pdf
[108] BVES Risk Registry 2022-3-11.xlsm
[109] FireSafetyCircuitMatrix 2023-1-10.xlsx

risk metrics mapping. Though no goal was set, the implementation of these tools will deliver ignition probability mapping along electric lines and equipment, and BVES has, therefore, satisfied this initiative for the WMP.

2.1.5.1.4. Initiative #7.3.1.4: Risk Assessment & Mapping - Initiative mapping and estimation of wildfire and PSPS risk-reduction impact / Ignition Probability & Wildfire Consequence Mapping

As stated in Section 2.1.5.1.1, BVES considers all Risk Assessment & Mapping initiatives as one program. This program includes the modeling tools offered by Technosylva[110], the risk-spend efficiency calculations for each mitigation activity[111], and the fire risk rating of each circuit[112].

No goal was set in 2022 for Initiative mapping and estimation of wildfire and PSPS risk-reduction impact. Progress was made through the agreement with Technosylva who will be able to provide this service. BVES has therefore satisfied this initiative for the WMP.

2.1.5.1.5. Initiative #7.3.1.5: Risk Assessment & Mapping - Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment /Ignition Probability & Wildfire Consequence Mapping

As stated in Section 2.1.5.1.1, BVES considers all Risk Assessment & Mapping initiatives as one program. This program includes the modeling tools offered by Technosylva[113], the risk-spend efficiency calculations for each mitigation activity[114], and the fire risk rating of each circuit[115].

No goal was set in 2022 for Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment. Progress was made through the agreement with Technosylva who will be able to provide this service. BVES has therefore satisfied this initiative for the WMP.

2.1.5.1.6. Initiative #7.3.2.2.2: Online Diagnostic System Pilot / Continuous monitoring sensors

This initiative was instituted in 2022. BVES planned to execute this project over the course of 2022 and incorporate the results into its WMP 2023 update. This pilot project was delayed past 2022. Per SME

[110] Technosylva-BVES_2022_SOW.pdf
[111] BVES Risk Registry 2022-3-11.xlsm
[112] FireSafetyCircuitMatrix 2023-1-10.xlsx
[113] Technosylva-BVES_2022_SOW.pdf
[114] BVES Risk Registry 2022-3-11.xlsm
[115] SafetyCircuitMatrix 2023-1-10.xlsx

interview with Tom Chou[116], there were procurement /subcontractor delays. The equipment arrived mid-2023 and will be installed soon. Therefore, as the work was not completed, S&L considers this initiative not met.

2.1.5.1.7. Initiative #7.3.2.4: Weather Consultant / Forecast of a fire risk index, fire potential index, or similar

This initiative covers BVES ongoing fire risk weather forecasting efforts. BVES provided S&L its Public Safety Power Shutoff Plan (PSPS) to promote public safety by proactive de-energization to reduce the risk of utility infrastructure as an ignition source[117]. The PSPS discussed daily monitoring measures conducted by the Field Operations Supervisor. The Field Operations Supervisor monitors the fire risk as designated by a subcontracted weather consultant in addition to other warning signals. The weather consultant incorporates the National Fire Danger Rating System (NFDRS) with the detailed local forecast specific to BVES's service area and develops a risk rating. Considerations and variables that are used to develop the risk rating that include, but not limited to: fuel dryness, fuel build up, and wind speed.

BVES provided additional documentation covering its proposal to subcontract a weather consultant[118] and examples of monthly weather and wind summaries from the subcontracted company[119]. BVES extended its existing contract with the subcontracted meteorologist, BensWeather, two more years to July 14, 2024. The weather and wind summaries from BensWeather clearly communicate warning signals for BVES to efficiently coordinate PSPS efforts that include but are not limited to rainfall amounts, seasonal temperature outlook, fuel moisture, and drought conditions. S&L concludes after reviewing the provided documentation that this initiative is met.

2.1.5.1.8. Initiative #7.3.2.5: Grid Operations & Protocol / Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions

This initiative covers ongoing work to address personnel needs during high-risk conditions. Per the Public Safety Power Shutoff Plan (PSPS), BVES has identified seven sections of "at risk" areas based on the type of distribution facilities (overhead bare conductions, high voltage, etc.) tree and vegetation density, available dry fuel, and other factors that make certain locations more vulnerable to wildfire risk[120]. BVES staff and the weather consultant review the National Fire Danger Rating System (NFDRS) on a weekly basis or more frequently during high fire threat periods to make advanced preparations on a daily basis to determine if

[116] SME Interview – Tom Chou, June 15, 2023
[117] BVES INC PSPS Procedures Rev1.pdf
[118] C#3000-001 Weather Consulting.pdf
[119] Wind Summary-Aug 2022.pdf, Wind Summary-Dec 2022.pdf, Wind Summary-Nov 2022.pdf, Wind Summary-Nov 2022.pdf, BVES Weather Summary-Aug 2022.pdf, BVES Weather Summary-Dec 2022.pdf, BVES Weather Summary-Nov 2022.pdf, BVES Weather Summary-Oct 2022.pdf
[120] BVES INC PSPS Procedures Rev1.pdf

additional steps should be taken. BVES deploys crews as necessary and continuously assesses personnel deficiencies and additional roles to support field operations. After reviewing the supplied documentation, it's evident BVES remains cognizant of ongoing threats while efficiently collaborating with all parties to mitigate wildfire risk. S&L concludes this initiative is met.

2.1.5.1.9. Initiative #7.3.2.6: Weather Consultant [Primary] / Weather forecasting and estimating impacts on electric lines and equipment

This initiative covers weather forecasting and estimating impacts on electric lines and equipment. BVES utilizes a subcontracted meteorologist that generates weather and wind summaries that are monitored by the Field Operations Team. This is referenced in detail in Section 2.1.5.1.7." Collaborating with a subcontracted meteorologist to use in tandem with their employees allows BVES to proactively assess potential impacts in a timely manner. S&L concludes this initiative was met.

2.1.5.1.10. Initiative #7.3.3.1: Capacitor maintenance and replacement program

BVES provided S&L documentation covering its capacitor maintenance and replacement program[121]. This document provides policy and procedures for the operation and maintenance of capacitors in the BVES transmission and distribution system. Section 5 in the supplied document details "Inspection and Maintenance" practices that includes an inspection schedule that is divided into three categories of inspections: visual imaging, thermal imaging, and capacitor electrical testing. The inspections range from being performed annually to every 5 years depending on the inspection type that is performed by the Substation Technician. If any issue arises, the Substation Technician communicates the issue to the Engineering and Planning group to resolve. The supplied documentation revealed BVES has a capacitor maintenance and replacement program that provides specific guidance to its employees to maintain and replace BVES assets. S&L concludes this initiative was met.

2.1.5.1.11. Initiative #7.3.3.2: Circuit breaker maintenance and installation to de-energize lines upon detecting a fault

BVES provided S&L its existing contract with the subcontractor, Hampton Tedder Electric Co., that provides substation testing and maintenance to BVES. The proposal from 2022 submitted by the contractor included scope of work, equipment/substation to be tested, cost, and testing procedures (Hampton Tedder Electric Co., Estimate #'s ES12816, ES16358, ES17213)[122]. BVES provided S&L additional documentation of technical service reports from each substation/equipment (Power Generation Switchgear, Division

[121] BVES INC Capacitor Operation Maintenance Plan Rev0.pdf
[122] C#3049-004 Substation Testing and Maintenance.pdf

Substation, Village Substation, and Meadow Substation) that was serviced by the contractor[123]. S&L noted circuit breakers as part of the scope of the inspections, which included operational timing, trip, insulation resistance, and power factor testing. S&L concludes this initiative was met.

2.1.5.1.12. Initiative #7.3.3.4: Covered conductor maintenance

Per the WMP[124], BVES inspects and maintains installed covered conductors in accordance with prescribed maintenance standards and industry best practices. As BVES increases deploying covered conductors in its service area, referenced in Section 2.1.2.1.1, the maintenance budget and resources will be allocated to properly maintain the covered conductor. S&L concludes this initiative was met as BVES has a plan in place for maintenance.

2.1.5.1.13. Initiative #7.3.3.5: Crossarm maintenance, repair, and replacement

Per the WMP[125], this initiative includes remediation, adjustments, or installations of new equipment related to crossarms in accordance with GO 95. BVES completes this initiative in tandem with Section 2.1.2.1.6. BVES has qualified individuals who inspect and maintain these assets. BVES has started to utilize composite crossarms that are less susceptible to fire damage. Based on the review of the pole replacement data spreadsheet[126], BVES has met this initiative in 2022 by replacing crossarms and applying lessons learned by utilizing a stronger, more durable material for its crossarm replacement.

2.1.5.1.14. Initiative #7.3.3.6.1: Pole Loading & Replacement Program / Distribution pole replacement and reinforcement, including with composite poles

Per the WMP[127], BVES remains in compliance with GO 95 and 165 by assessing and remediating non-compliant distribution poles. BVES looks for synergies between Initiative #7.3.3.3.1 & 7.3.3.3.2: Covered Conductor Replacement Program (Section 2.1.2.1.1) and Initiative #7.3.3.13: Pole Loading & Replacement Program [Primary] (Section 2.1.2.1.6). Although there was no specific quantifiable target for this initiative, the total amount of poles hardened in 2022 exceeded their target, which indicates that BVES is identifying and remediating noncompliant poles by completing work orders in a timely manner. S&L concludes this initiative was met.

[123] ES19500_BVES_PowerGenerationSwitchgear_Report.pdf,ES19501_BVES_DIVISION SUBSTATION_REPORT.pdf,ES19594_BVES_VillageSubstation_Report.pdf,ES19595_BVES_Meadow Substation_Report.pdf
[124] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[125] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[126] 2022 pole replacement data.xlsx
[127] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

2.1.5.1.15. Initiative #7.3.3.9.2: Grid Automation Program // FLISR / Installation of system automation equipment

This initiative is aimed at detecting faults by enhancing situational awareness of the electric distribution system, rapidly detecting fault conditions, and localizing and isolating faults from the system to reduce risk of ignitions. Per the WMP[128], the Fault Localization Isolation and System Restoration (FLISR) initiative installs nine smart high voltage switches and integrates three existing auto-reclosers and one autotransfer switch on the 34.5-kV system. The 4-kV distribution system does not have this capability and is being evaluated by BVES to implement in the future. The FLISR project was completed in 2022. The Work Order document was supplied by BVES for S&L to review[129]. The work order detailed various cost that included labor, equipment, and materials associated with the project. BVES also supplied SCADA images that were detailed in Section 2.1.4.1.2. The images at each substation showed a FLISR tab[130]. S&L concludes this initiative was met.

2.1.5.1.16. Initiative #7.3.3.9.3: Grid Automation Program // Fuse Trip Saver / Installation of system automation equipment

BVES has ongoing plans to automate the fuses by implementing the devices with the Supervisory Control and Data Acquisition (SCADA) Network per the Q4 WMP update[131]. This project is slated to begin in 2023; therefore, this initiative is in progress and found to be compliant with this initiative.

2.1.5.1.17. Initiative #7.3.3.9.4: Server Upgrade Project / Installation of system automation equipment

There was no activity conducted by BVES on this project in 2022. The project is planned to commence in 2023; therefore, this initiative is in progress and found to be compliant with this initiative

2.1.5.1.18. Initiative #7.3.3.9.5: Distribution Management Center Program/Installation of system automation equipment

There was no activity conducted by BVES on this project in 2022. The project is planned to commence in 2024; therefore, in progress and found to be compliant with this initiative.

[128] 2022-05-06_BVES_2022_WMP-Update_R1.pdf,
[129] WO 40412086 TA (FLISR System Project).pdf
[130] MOONRIDE.jpg, PALAMINO.jpg, PINEKNOT.jpg
[131] BVES Quarterly Notification_QNL_Q4_RO.pdf

2.1.5.1.19. Initiative #7.3.3.10: Maintenance, repair, and replacement of connectors, including hotline clamps

Per the WMP[132], this initiative includes remediation, adjustments, or installations of new equipment to improve or replace existing connectors, including hotline clamps. BVES conducts inspections detailed in Section 2.1.3.1.1, to perform visual and routine diagnostic exam of individual pieces of equipment. Per BVES, individual issues are documented in the iRestore database and are tracked until remediation is complete. S&L concludes this initiative is met.

2.1.5.1.20. Initiative #7.3.3.11.1: Energy Storage Project / Mitigation of impact on customers and other residents affected during PSPS event

Per the WMP[133], BVES proposed to construct an energy storage project of approximately 5 MW/20 MWh Lithium-Ion NMC ("Nickel Manganese Cobalt") utility-grade battery to complement the Bear Valley Solar Energy Project (BVSEP). The purpose of the storage project is to allow BVES to internally supply energy to most of its customers to minimize the effects of any PSPS event. BVES is still in the process of siting the storage device to be used in tandem with the BVSEP. S&L concludes that while there was no specific goal, progress was made in the form of planning and beginning the siting process, therefore, BVES is in compliance with this initiative.

2.1.5.1.21. Initiative #7.3.3.11.2: BVPP Phase 3 and 4 Upgrade Project / Mitigation of impact on customers and other residents affected during PSPS event

BVES completed Phase 3 in 2022 with plans to complete Phase 4 in their 2023 – 2026 General Rate Cases scheduled to commence in 2024. S&L requested documentation detailing the completion of Phase 1 through 3 of the project. The work order document supplied by BVES detailed various costs that included labor, equipment, and materials associated with the project[134]. The work order document indicated Phase 3 was completed in 2022. This initiative was met.

2.1.5.1.22. Initiative #7.3.3.12.1: Safety & Technical Upgrades of Substations / Other corrective action

Palomino was upgraded from an overhead type to a pad mounted design with dead front SCADA-enabled design that was completed in 2021. Although spending was over budget for this initiative, the cost that was generated was from operational spending. There were no further upgrades at the substation. There was

[132] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[133] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[134] WO 60400004 BVPP Phase 1-3 Upgrades Transaction Analysis.pdf

not another substation upgraded per the 2022 WMP update, BVES is applying lessons learned to their next planned upgrade at Maltby Station.[135] S&L concludes this initiative was met.

2.1.5.1.23. Initiative #7.3.3.14: Transformers maintenance and replacement

BVES provided S&L its existing contract with the subcontractor, Hampton Tedder Electric Co., to provide substation testing and maintenance as referenced in Section 2.1.5.1.12. The proposal from 2022 submitted by the contractor included scope of work, equipment/substation to be tested, cost, and testing procedures (Hampton Tedder Electric Co., Estimate #'s ES12816, ES16358, ES17213)[136]. BVES provided S&L additional documentation of technical service reports from each substation/equipment (Power Generation Switchgear, Division Substation, Village Substation, and Meadow Substation) that was serviced by the contractor, which included transformer minimum and maximum temperature, oil levels, gas pressure, a dissolved-gas analysis, and an insulating fluid evaluation[137]. S&L concludes this initiative was met.

2.1.5.1.24. Initiative #7.3.3.16: Undergrounding of electric lines and/or equipment

BVES did not have a large-scale underground wire/equipment project planned in 2022. This initiative covers small-scale routine undergrounding for new developments and services to reduce overhead facilities to meet minimum GO 128 requirements. Two invoices from work orders completed in 2022 for undergrounding wire/equipment were provided by BVES that included a cost breakdown for the scope of work[138]. S&L concludes this initiative has been met.

2.1.5.1.25. Initiative #7.3.4.3: Asset Management & Inspections - Improvement of inspections

As identified in the BVES 2022 WMP[139], BVES maintains routine training and assessment of electrical inspection activities. BVES also applies annual lessons learned or identified improvements and tracks developing inspection practices in the industry. Updates on the training and assessment performed were requested via RFI. As indicated in the RFI Response[140], the improvement to inspections in 2022 was the implementation of the iRestore inspection software to centralize BVES inspection programs database. Per the 2022 Fourth Quarter Report[141], "BVES is always trying to optimize its inspections and is open to changes/adaptations leading to a better process. BVES is working on upgrading inspection documentation

[135] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[136] C#3049-004 Substation Testing and Maintenance.pdf
[137] ES19500_BVES_PowerGenerationSwitchgear_Report.pdf,ES19501_BVES_DIVISION SUBSTATION_REPORT.pdf,ES19594_BVES_VillageSubstation_Report.pdf,ES19595_BVES_Meadow Substation_Report.pdf
[138] Undergrounding of electric lines andor equipment List.xlsx, WO 60400079 TA.pdf, WO 604000121 TA.pdf
[139] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[140] RFI Response - #12 – June 7, 2023
[141] BVES Quarterly Notification_QNL_Q4_RO.pdf

tool for use in the field." The WMP states that, "Current plans for next year include procuring and implementing iRestore Inspection Software to improve collection, management, and review of inspection results." It was clarified via RFI response[142] that, "iRestore was realeased [SIC] in 2021 but in a very limited and early develepment [SIC] stage. Many of the features were implemented in 2022 and more features will be implemented into 2023 and 2024." This program was also discussed during a Subject Matter Expert Interview[143] with Jared Hennen on May 31, 2023. He explained that he is currently the point person for the iRestore application and enters updates made by operations. As improvements continue to be made, the goal is that the iRestore input will be directly made by the Operations team. Based on the above information, BVES has satisfied this WMP initiative activity.

2.1.5.1.26. Initiative #7.3.4.14: Asset Management & Inspections - Quality Control of Inspections [Primary]

Per the BVES 2022 WMP[144], "this initiative includes the identification and actionable outcomes of deficiencies and inspection protocols executed in the field. This will support improvement of training and applying lessons learned from third party evaluations and inspections." The appendix in Section 9 defines this initiative as the "Establishment and function of audit process to manage and confirm work completed by employees or contractors, including packaging QA/QC information for input to decision-making and related integrated workforce management processes." Per the WMP's Table 5.3-1, the "Projected Target by End of 2022" for this initiative was identified as "4" "# of VM Audits".

The BVES Asset and Inspection Quality Management Plan[145] (Revision 0) was issued on December 28, 2021. Bear Valley was asked via RFI[146], if audits had been performed in 2022 in accordance with the plan. They responded with the following list of quality assurance or quality control (QA/QC) records and reports for programs, initiatives, or strategies described in the 2022 WMP Update:

- GO-165 Detailed Inspections – 29.6 circuit miles inspected - (refer to 2022 Detailed Inspections)
- GO-165 Patrol Inspections – 255 circuit miles inspected - (refer to 2022 Patrol Inspections)
- Pole Intrusive Inspections – 853 poles Inspected - (refer to 2022 Intrusive Poles)
- LiDAR inspection – 211 circuit miles inspected - (refer to 2022 LiDAR inspection)
- Third Party Ground Patrol – 211 circuit miles Inspected in 2022- (refer to 2022 BVES 3rd Party and UAV inspection)
- UAV Inspection – 211 circuit miles inspected - (refer to 2022 BVES 3rd Party and UAV inspection)

[142] RFI Response - #12.
[143] SME Interview – Jared Hennen, May 31, 2023
[144] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[145] BVES INC Quality Management Plan Rev0.pdf
[146] RFI Response 6/7/23

- Vegetation QCs conducted by management – 132 inspections (1,419 trees) (refer to 2022 Vegetation QA.QC)
- Covered Conductor QCs conducted on contractor installations – 12.96 circuit miles installed and inspected - (refer to 2022 Covered Conductor Installation QCs)
- Tree Attachment Removal QCs conducted on contractor installations - 83 Tree Attachment Removals (refer to 2022 TARP QCs).

Per the Quality Management Plan, "The focus of QA is to provide confidence that requirements and standards are met, and that processes and system have been followed. Some examples of QA:

- A checklist for assembly of product (the procedure/process as a series of steps that must be done).
- A written procedure.
- A set of processes for construction that cover the whole 'life cycle' from getting system requirements, through designing the system, procuring the materials or parts, constructing to applicable standards, testing, and placing in operation.
- A set of processes for a service that cover the whole 'life cycle' from establishing what the system requires, through designing the service, developing and delivering it."

Based on an interview with the relevant BVES SME[147], the QA activities performed by BVES include reviews of third-party inspection results, relevant follow-up discussions, and then the use those results to inform future field work. BVES is completing Quality Control activities; however, objective evidence of Quality Assurance overview of the activities being performed was not provided, and this initiative is not being met.

2.1.5.1.27. Initiative #7.3.5.1: Vegetation Management & Inspections- Additional efforts to manage community and environmental impacts / Contracted Forester Service/ Environmental Impact Mitigation Activities

Per the WMP[148], BVES Initiative #7.3.5.1: "Contracted Forester Service // Environmental Impact Mitigation Activities" target goals and activities included information exchange and coordination with land management agencies. This was verified within the Forester Contract (Davey Resource Group) and the Manager Brief presentation provided by BVES.[149] The Forester Contract scope states, in part, the following:

"Contractor to preform [sic] Forester services such as: inspections, auditing, customer contact and issue resolution, work plan development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis."

[147] Tom Chou Interview, June 8, 2023
[148] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[149] C#3090-003 Forester Contract, CBBL Manager Brief 2022-11 R0.pptx

The Manager Brief document consists of a presentation intended for the City Manager of Big Bear Lake regarding issues of BVES service area & system, the BVES wildfire mitigation plan, PSPS, the general rate case, major capital projects, reliability, and customer programs and outreach. The "customer programs and outreach" portion of the presentation provides relevant community impact programs and information (e.g., The California Alternate Rates for Energy [CARE program], Energy Savings Assistance Program [ESA], Emergency Disaster Relief Customer Protections, Customer Assistance Programs, Residential & Commercial Electric Vehicle [EV] Pilot Programs, Residential & Commercial Solar Program, Online Resources, and other Customer Programs). After review of these documents, S&L determined that BVES has met the target goal of "Information exchange and coordination with land management agencies" for this initiative.

2.1.5.1.28. Initiative #7.3.5.4: Vegetation Management & Inspections - Emergency response vegetation management due to red flag warning or other urgent conditions / Emergency Preparedness & Response Program

Per the WMP[150], BVES Initiative #7.3.5.4: "Emergency Preparedness & Response Program" target goals and activities included emergency responses for vegetation management due to red flag warnings or other urgent conditions. BVES provided the Forester Contract (Davey Resource Group) and Vegetation Management contract (The Original Mowbray's Tree Service) for review.[151] The Forester Contract scope states, in part, the following:

"Contractor to preform [sic] Forester services such as: inspections, auditing, customer contact and issue resolution, work plan development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis."

The Vegetation Management contract states, in part, the following:

"Providing vegetation management services for electric utilities in the vicinity of sub-transmission and distribution systems."

"4.5. Specific Tasks to be Accomplished: Contractor will provide all the necessary supervision, labor, transportation, materials, equipment and all tools to safely, properly and promptly provide for vegetation trimming services for power line clearance of the BVES sub-transmission (34.5 kV) and distribution (up to 4.160 kV) systems. Contractor will implement and execute a full service vegetation management program for the BVES Service Area that includes:

"…

[150] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[151] C#3090-003 Forester Contract & C#3095-002 Vegetation Management.pdf

- "*Emergency vegetation clearance response as requested by the BVES Representative*."

Based on these contracts and the Mowbray's Tree Service vegetation management invoices[152], it was determined that BVES met the qualitative target goal of emergency response vegetation management for this initiative.

2.1.5.1.29. Initiative #7.3.5.5: Vegetation Management & Inspections - Fuel management and reduction of "slash" from vegetation management activities / Enhanced Vegetation Management Program

Per the WMP[153], BVES Initiative #7.3.5.5: Enhanced Vegetation Management Program target goals and activities included fuel management and reduction of "slash" from vegetation management activities. This target was verified through a review of a BVES provided Vegetation Management contract (The Original Mowbray's Tree Service)[154] and relevant Mowbray's Tree Service invoices[155]. The Vegetation Management scope states, in part, the following:

"Providing vegetation management services for electric utilities in the vicinity of sub-transmission and distribution systems."

"4.5. Specific Tasks to be Accomplished: Contractor will provide all the necessary supervision, labor, transportation, materials, equipment and all tools to safely, properly and promptly provide for vegetation trimming services for power line clearance of the BVES sub-transmission (34.5 kV) and distribution (up to 4.160 kV) systems. Contractor will implement and execute a full service vegetation management program for the BVES Service Area that includes:

- *Comprehensive preventative vegetation management cyclic program approved by BVES that aims to keep power lines clear of vegetation per specifications identified below.*
- *Corrective vegetation clearance response that aims to correct vegetation clearance discrepancies around power lines that the Contractor discovers, BVES Representative identifies, and/or other competent party approved by BVES notes.*
- *Emergency vegetation clearance response as requested by the BVES Representative.*
- *Complete documentation of vegetation trimming activities as identified below."*

Based on the contract scope and tasks, Mowbray's Tree Service would be responsible for removing vegetation waste as part of contract on daily basis. Based on the provided contract and invoices, it was

[152] Mowbrays Invoices.pdf; Mowbray's Paid Invoices for 2022.xlsx
[153] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[154] C#3095-002 Vegetation Management.pdf
[155] Mowbrays Invoices.pdf; Mowbray's Paid Invoices for 2022.xlsx

determined that BVES meets the target goal of slash reduction or "Contractor removes veg waste as part of contract on daily basis" for this initiative.

2.1.5.1.30. Initiative #7.3.5.14: Vegetation Management & Inspections - Recruiting and training of vegetation management personnel / Vegetation Management Program Staffing

Per the WMP[156], BVES Initiative #7.3.5.14: "Vegetation Management Program Staffing" activities included controlling, recruiting, and training of vegetation management personnel. The qualitative initiative goal for 2022 was "No gaps in staffing for veg." BVES provided input that the plan or procedure is a "Management/ Supervisory effort" and that there were no gaps in staffing for vegetation management. It was verified by BVES that Vegetation Management Program Staffing contains no gaps in personnel[157]. Based on the provided input, it was determined that BVES met the target goal for this initiative.

2.1.5.1.31. Initiative #7.3.5.15: Vegetation Management & Inspections - Remediation of at-risk species/ Identification and remediation of "at-risk species"

Per the WMP[158], BVES Initiative #7.3.5.15: "Identification and remediation of 'at-risk species'" target goals and activities included requirements for identification and remediation of "at-risk species". The completed tree work spreadsheet[159] and contract for the Forester Contract (Davey Resource Group) was reviewed[160]. The Forester Contract scope states, in part, the following:

"Contractor to preform [sic] Forester services such as: inspections, auditing, customer contact and issue resolution, work plan development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis."

Additionally, Section 3 "Background" of Exhibit A of the contract indicates, in part, the following:

"Improved vegetation management is a critical element of wildfire mitigation plans for electric utilities. The ability for the utility to fully understand the local environment, and to gain detailed, tree-by-tree, knowledge of tree species and conditions in its service area is important to allowing the utility to take preventative steps to mitigate the possibility of wildfires."

Davey Resource Group's proposal, attached to the contract, also indicates their experience with "tree species."

[156] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[157] SL RFI for BVES WMP Assessment_20230614
[158] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[159] 2022 Completed Tree Work.xlsx
[160] C#3090-003 Forester Contract.pdf

Also, the "2022 Completed Tree Work" spreadsheet, provides a 3,452 item BVES Inventory (2022) which includes Location, Grid ID, Species, Quantity, Lift/Climb, Trim Style, Foreman, Start Date, Complete Date, and Comments. The spreadsheet also provides a summary table indicating the following:

- Call-Outs
  - Trims 263
  - Removals 36
- Routine
  - Trims 3096
  - Removals 21

Based on the provided documentation, it was determined that BVES meets the target goal for this initiative.

2.1.5.1.32. Initiative #7.3.5.18: Vegetation Management & Inspections - Substation Vegetation Management / Substation Vegetation Management Inspections & Corrections

Per the WMP[161], BVES Initiative #7.3.5.18: Substation Vegetation Management Inspections & Corrections target goals and activities included the requirements for substation vegetation management inspections & corrections and removal of substation vegetation on an annual basis. S&L reviewed invoices[162] from Action Response Team, INC. showing removal and weed abatement at the substations. Based on the provided documentation, it was determined that BVES meets the target goal for #7.3.5.18: "Substation Management Inspections and Corrections."

2.1.5.1.33. Initiative #7.3.5.19: Vegetation Management & Inspections - Vegetation Inventory System / GIS Data Collection & Sharing

Per the WMP[163], BVES Initiative #7.3.5.19: "GIS Data Collection & Sharing" activities included updating the GIS system as required. The qualitative initiative goal was "System updates as necessary" and entering Trimmed Trees data into the GIS (Geographic Information System) was cited as the activity satisfying the initiative goal. This was reviewed and confirmed via BVES provided Spatial Data.[164] For example, based on BVES SME interviews[165], results of field-based activities (such as vegetation management and inspections) are recorded along with the proper geospatial coordinates of the relevant BVES asset into the GIS software database. This allows for ready access to geographically relevant data; however, this

[161] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[162] Inv#220513.pdf, inv#220616.pdf, inv#220819.pdf.
[163] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[164] 2022 OEIS Spatial Data.zip.
[165] BVES GIS Map/Grid Discussion meeting Thu 6/1/2023 11:45 AM - 12:00 AM

information must be consistently updated as new data is generated. Based on the provided documentation, it was concluded that BVES meets the target goal of "System updates as necessary" for this initiative.

2.1.5.1.34. Initiative #7.3.5.21: Vegetation Management & Inspections - Vegetation Management Activities Post-Fire

Per the WMP[166], BVES Initiative #7.3.5.21: "Vegetation Management Activities Post-Fire," target goals and activities included planning, procedures, public outreach, and other activities following a fire event. As no fires occurred in BVES territory in 2022, it was concluded that this initiative has no specific goal or progress and is in compliance with the initiative.

2.1.5.1.35. Initiative #7.3.6.1: Grid Operations & Operating Protocols - Automatic Recloser Operations / Grid Automation Program

There was no specific 2022 activity goal/target provided in the WMP[167] for this initiative. BVES installed S&C's Pulse Closer Fault Interrupters across its major 34-kV system auto-reclosers. This technology provides the settings necessary to reduce electrical ignition, while also helping mitigate power outages and equipment damage by using low energy pulses to test for faults. S&L considers this initiative complete.

2.1.5.1.36. Initiative #7.3.6.2: Grid Operations & Operating Protocols – Protective Equipment and Device Settings

The 2022 BVES initiative for Protective Equipment and Device Settings is to continue an ongoing program to establish effective protective equipment project scopes and device settings for applicable assets. The acceptability of this WMP initiative activity is fulfilled in Revision 1 of the PSPS procedure[168] which describes the Operational Practices in place to mitigate the need for PSPS. The Operational Practices include developing device protective settings and selecting fuses that enhance fire prevention while considering the served load demand. Based on the documentation reviewed, it is evident that BVES has reached its goal and satisfied this initiative activity.

2.1.5.1.37. Initiative #7.3.6.3: Grid Operations & Operating Protocols – Crew-Accompanying Ignition Prevention and Suppression Resources and Services / Emergency Preparedness & Response Program

The WMP[169] indicates that BVES does not have fire suppression resources; rather, BVES uses external resources. BVES works with Big Bear Fire Department, San Bernardino County Fire Department, and CALFIRE closely to provide crews on call for ignition prevention and suppression. Because there were no

[166] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[167] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[168] BVES INC PSPS Procedure Rev1.pdf
[169] BVES WMP Revised 2022 Update Version 1, May 6, 2022

emergency events in 2022 and external resources and services were utilized, it is evident that BVES has reached its qualitative goal of ongoing compliance.

2.1.5.1.38. Initiative #7.3.6.4: Grid Operations & Operating Protocols – Personnel Work Procedures and Training in Conditions of Elevated Fire Risk / PSPS Program & Procedures

The WMP[170] states that this initiative is addressed by Wildfire Infrastructure Protection Teams, with roles and responsibilities for staff to respond to protect system infrastructure in case of emergencies. Personnel work procedures, in conditions of elevated fire risk, are addressed in the BVES PSPS procedure[171] and the BVES emergency response plan.[172]

Based on the existing procedures, training documents, and commitment to continuous improvement, BVES achieved the qualitative goal of continuing compliance with the programs and procedures.

2.1.5.1.39. Initiative #7.3.6.5: Grid Operations & Operating Protocols – Protocols for PSPS Re-Energization / PSPS Program & Procedures

Per the WMP[173], BVES considers re-energization after a PSPS event to be a subset of outage restoration and re-energization protocols generally included in Initiative Category 7.3.6, “Grid Operations and Protocols”; therefore, the utility does not have a separate protocol for PSPS. Based on the protocols discussed in Section 2.1.5.1.38, Initiative #7.3.6.4, BVES met the qualitative goal of this initiative.

2.1.5.1.40. Initiative #7.3.6.6: Grid Operations & Operating Protocols – PSPS Events and Mitigation of PSPS Impacts / PSPS Program & Procedures [Primary]

The WMP[174] identifies that this is a system-wide initiative to ensure that BVES has protocols and procedures to respond to and recover from de-energization events to proactively prevent wildfires. The procedures and training to mitigate impacts are documented in Section 2.1.5.1.38, Initiative #7.3.6.4. Based on there being zero PSPS events in 2022 and the existing procedures and training documents, BVES met the qualitative goal of this initiative.

[170] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[171] BVES INC PSPS Procedure Rev1.pdf
[172] BVES INC PSPS Procedure Rev1.pdf
[173] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[174] BVES WMP Revised 2022 Update Version 1, May 6, 2022

2.1.5.1.41. Initiative #7.3.6.7: Grid Operations & Operating Protocols – Stationed and On-Call Ignition Prevention and Suppression Resources and Services / Emergency Preparedness & Response Program

As there was no specific 2022 activity goal/target provided in the WMP[175] for this initiative, S&L considers it complete.

2.1.5.1.42. Initiative #7.3.7.1: Data Governance/Centralized repository for data/GIS Data Collection & Sharing [Primary]

For 2022, BVES set an initiative goal of continued development and storage of GIS data and claims achievement of continued refinement of GIS resources. BVES maintains a GIS for their assets and their service area. The data from this GIS can be found within the GIS zip file[176] provided by BVES. This acts as a central repository for data pertaining to the GIS, including versions of the database titled "Q2[177]," "Q3[178]," and "Q4[179]," corresponding to the updated versions of the GIS completed for each of those quarters in 2022.

BVES has demonstrated a continued use and improvement of the GIS system and has, therefore, satisfied this initiative for the WMP.

2.1.5.1.43. Initiative #7.3.7.2: Data Governance/Collaborative research on utility ignition and/or wildfire

BVES stated that they do not have a unique goal for this initiative but are open to future collaborative research on any utility ignition and/or wildfire. As there was no goal set, BVES is in compliance with this initiative for the WMP.

2.1.5.1.44. Initiative #7.3.7.3: Data Governance/Documentation and disclosure of wildfire-related data and algorithms

BVES set a qualitative goal for this initiative "risk model working group information exchange" and stated that there is no unique WMP initiative for this category at this time, this is captured under normal business operations. BVES has shared their fire risk registry[180], fire safety circuit matrix[181], and outage log[182], all of

[175] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[176] 2022 OEIS Spatial Data.zip
[177] 2022-08-01_BVES_2022_DSSR_Q2_R0.xlsx
[178] 2022-11-01_BVES_2022_DSSR_Q3_R0.xlsx
[179] 2023-02-01_BVES_2022_DSSR_Q4_R0.xlsx
[180] BVES Risk Registry 2022-3-11.xlsm
[181] FireSafetyCircuitMatrix 2023-1-10.xlsx
[182] 2022 Outage Log.xlsx

which go into detail regarding the algorithms used to calculate risk and consequence. Therefore, it is determined that BVES has satisfied the goal of this initiative for the WMP.

2.1.5.1.45. Initiative #7.3.7.4: Data Governance/Tracking and analysis of near-miss data/WMP Metrics Tracking

The 2022 outage log[183] details every outage occurrence both planned and unplanned, and includes information such as circuit, substation, customers affected, description, etc. All unplanned outages in this log can be considered a near miss, as no wildfires resulted from any incident. BVES set a goal for this initiative of continued compliance with the program in place and stated an achievement of “aligned recording mechanism to track near miss data with WSD/OEIS template”.

BVES has demonstrated continued compliance with their near miss data program and has, therefore, satisfied the goal of this initiative for the WMP.

2.1.5.1.46. Initiative #7.3.8.1: Resource Allocation Methodology/Allocation methodology development and application [Primary]

For this initiative, BVES listed a qualitative goal, "program in place and continued compliance with program," but did not list specific achievements to satisfy this goal. However, BVES provided documentation of the existing programs for risk spend efficiency analysis and circuit risk scores. The Fire Safety Circuit Matrix[184] lists each circuit in the BVES territory and determines a fire risk score based on several factors including voltage, vegetation density, wind intensity, and others. The BVES Risk Registry[185] lists each mitigation activity and assigns mitigated and unmitigated risk scores associated with each activity. Total money spent on each activity then gives the risk spend efficiency (RSE) analysis of each mitigation activity. These documents demonstrate that BVES has continued their resource allocation methodology program and is, therefore, in compliance with the WMP for this initiative in 2022.

2.1.5.1.47. Initiative #7.3.8.2: Resource Allocation Methodology/Risk reduction scenario development and analysis

BVES did not set a specific goal for this initiative in 2022. Documentation provided for resource allocation methodology[186] demonstrates that BVES has continued their plan for resource allocation, which includes risk reduction. Since no specific goal was set for this initiative in 2022, BVES is in compliance with the WMP.

[183] 2022 Outage Log.xlsx
[184] FireSafetyCircuitMatrix 2023-1-10.xlsx
[185] BVES Risk Registry 2022-3-11.xlsm
[186] BVES Risk Registry 2022-3-11.xlsm

2.1.5.1.48. Initiative #7.3.8.3: Resource Allocation Methodology/Risk spend efficiency analysis

BVES did not provide a specific goal for this initiative in 2022. The BVES Risk Registry[187] calculates the RSE (risk spend efficiency) of each mitigation activity. This is the amount of risk that is reduced per dollar spent on each mitigation activity. The risk calculation method is given as:

*Risk = Frequency*SUM(Category Weight*10^Impact)*

The categories and weights listed were reliability (12.1%), compliance (17.1%), quality of service (7.2%), safety (60.5%), and environmental (3.1%). For each mitigation activity, the risk score was calculated before and after completion of the activity, which shows how much the mitigation activity affects the total risk to public safety, property damage, or loss of energy. This difference of mitigated and unmitigated risk scores is divided by annual spend to give the final RSE. This gives an estimate of how much each mitigation activity reduces the risks of wildfires per dollar spent. While this analysis is imperfect due to the difficult nature of accurately calculating risk, it is sufficient in the pursuit of providing BVES a qualitative analysis for where they are spending their money and, relatively, how much benefit they are getting out of each mitigation activity. No specific goal was set for this initiative in 2022, but the continued use of the RSE model demonstrates that BVES is in compliance with this initiative of the WMP.

2.1.5.1.49. Initiative #7.3.9.1: Emergency Planning & Preparedness – Adequate and Trained Workforce / Resource Allocation Methodology

The relevant quality documents governing this initiative are Revision 2 of the BVES emergency response plan[188] and Revision 1 of the BVES PSPS procedure.[189] The documents provide a relatively detailed methodology for PSPS and emergency response organizational roles and responsibilities, response plan training and exercises, preparedness, background information, guidelines, procedures, checklists, and resources. Paul Marconi, BVES's president, was interviewed in 2022 and described the ongoing training process utilizing their learning management system (LMS). LMS tracks required training to ensure that all employees are training on the latest procedure versions. In addition, the California Utilities Emergency Association (CUEA) mutual assistance agreement plan[190] authorizes third-party assistance in the event of an emergency affecting electrical generation, electrical or natural gas transmission, and/or related facilities.

[187] BVES Risk Registry 2022-3-11.xlsm
[188] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[189] BVES INC PSPS Procedure Rev1.pdf
[190] Mutual Assistance Agreement (Electric and Natural Gas) Among Members of the California [SIC] Utilities emergency Association.pdf

Based on documentation reviews, S&L finds it evident that actions are taken to identify, hire, retain, and train a qualified workforce to conduct service restoration in response to emergencies, including a short-term contracting strategy and implementation. BVES has satisfied this initiative activity goal.

2.1.5.1.50. Initiative #7.3.9.3: Emergency Planning & Preparedness – Customer Support in Emergencies / Emergency Preparedness & Response Program

The 2022 BVES initiative for Customer Support in Emergencies is to ensure customers stay informed during emergencies which could help customers find the resources they need, such as access to a community resource center, prevent them from engaging in risky behavior, and free up BVES resources to address and resolve the emergency. The BVES goal of zero emergencies was met in 2022, therefore the effectiveness of the plan and processes could not be evaluated. The BVES processes for meeting this WMP initiative activity are contained in Revision 2 the BVES emergency response plan[191] and Revision 1 of the PSPS procedure.[192] The documents provide a detailed methodology for PSPS and emergency response communications and customer support during emergencies. Based on the BVES customer support processes in place, S&L finds it evident that BVES has reached its goal and satisfied this WMP initiative.

2.1.5.1.51. Initiative #7.3.9.4: Emergency Planning & Preparedness – Disaster and Emergency Preparedness Plan - Emergency Preparedness & Response Program [Primary]

The 2022 BVES initiative for Disaster and Emergency Preparedness Plan is to ensure that BVES will take quick and decisive actions in the case of emergency. The BVES goal of zero emergencies was met in 2022, therefore the effectiveness of the plan and processes could not be evaluated. The acceptability of this WMP[193] initiative activity is fulfilled in Revision 2 the BVES emergency response plan[194] and Revision 1 of the PSPS procedure.[195] The documents provide a detailed methodology for PSPS and emergency response event preparation, procedures, and evacuation. The BVES emergency response plan defines both an external Standardized Emergency Management System (SEMS), an internal BVES Emergency Organization chart, and an Emergency Response Communications Plan. These systems along with a Public Information Group indicates proper communication among all stakeholders. Based on the BVES disaster and emergency preparedness processes in place, S&L finds it evident that BVES reached its goal and satisfied this initiative activity.

[191] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[192] BVES INC PSPS Procedure Rev1.pdf
[193] BVES WMP Revised 2022 Update Version 1, May 6, 2022
[194] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[195] BVES INC PSPS Procedure Rev1.pdf

2.1.5.1.52. Initiative #7.3.9.5: Emergency Planning & Preparedness – Preparedness and Planning for Service Restoration / Emergency Preparedness & Response Program

The 2022 BVES initiative for Preparedness and Planning for Service Restoration is to ensure that BVES employees are prepared and provided with the necessary tools to support a safe and quick restoration of power service following an emergency event. The BVES goal of zero emergencies was met in 2022, therefore the effectiveness of the plan and processes could not be evaluated. The acceptability of this WMP initiative activity is fulfilled in Revision 2 the BVES emergency response plan[196] and Revision 1 of the PSPS procedure.[197] The BVES emergency response plan requires an annual emergency response plan training and exercise. The annual training was conducted on April 14, 2022, and the annual exercise was conducted on June 21, 2022[198]. The BVES PSPS Exercises resulted in lessons learned to be implemented to help ensure that necessary resources are available in the case of an emergency. Based on the documentation reviewed, it is evident that BVES has reached its goal and satisfied this initiative activity.

2.1.5.1.53. Initiative #7.3.9.6: Emergency Planning & Preparedness – Protocols in Place to Learn from Wildfire Events / Emergency Preparedness & Response Program

The 2022 BVES initiative for Protocols in Place to Learn from Wildfire Events is to ensure that BVES learns and adapts its practices following wildfire events. The BVES goal of zero emergencies was met in 2022, therefore the effectiveness of the plan and processes could not be evaluated. The acceptability of this WMP initiative activity is fulfilled in Revision 2 the BVES emergency response plan[199] and Revision 1 of the PSPS procedure which both include steps to document lessons learned.[200] The BVES emergency response plan requires that once an incident is officially terminated, the Utility Manager shall schedule and conduct formal hot washes/debriefing sessions with applicable staff and have an After Action Report Prepared. The After Action Report should include lessons learned, evaluation on whether or not the plan was properly followed, and specific improvement actions. Based on the documentation reviewed and the fact that BVES has a plan in place that provides opportunities for sharing lessons learned, it is evident that BVES has reached its goal and satisfied this initiative activity.

[196] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[197] BVES INC PSPS Procedure Rev1.pdf
[198] 2022 BVES PSPS CPUC Staff Brief Final.pptx
[199] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[200] BVES INC PSPS Procedure Rev1.pdf

2.1.5.1.54. Initiative #7.3.10.2: Cooperation and best practice sharing with agencies outside CA

BVES does not have a unique WMP initiative for this activity in 2022. BVES is actively engaged in reviewing and learning from transmission and distribution (T&D) industry best practices and new techniques and technologies that are captured under normal business operations. S&L submitted RFI no. 26 to request information on how BVES meets this initiative. Per BVES, employees attended IEEE/PES Transmission and Distribution Conference & Exposition (T&D) April 25-28 in New Orleans, LA and DistribuTech Conference May 23-25 in Dallas, TX. Additionally, BVES attended the Energy Utility Environment Conference (EUEC) 2022 on October 5-7, 2022. At these industry conferences, cooperation as well as discussions, presentations, and communication of best practices amongst attendees with varied backgrounds and representing various agencies operating outside of the state of California occurred.

With respect to the IEEE/PES T&D conference, the following topics were attended by BVES personnel:

- How Advanced Conductors are Improving the T&D System and Combating Climate Change
- Study of End Point Voltage Measurements on Distribution Systems for Avoiding Open or Falling Conductors from Evolving to Ground Faults and Wildfire Ignitions
- High-Density Distributed Sensor Network for Monitoring Grid Events

Regarding the 2022 DistribuTech conference, BVES attended the following session:

- Using the Common Information Model for Distribution Grid Model Data Management

For the EUEC 2022, the following WMP related topics were attended:

- Utility Wildfire Safety
- Utility Wood Structures
- Lightening Protection

Based on the BVES industry conference attendance and clarification responses, S&L concluded that BVES has satisfied this initiative.

2.1.5.1.55. Initiative #7.3.10.3: Cooperation with suppression agencies

BVES does not have a unique WMP initiative for this activity in 2022. This initiative is intended for electric services to maintain established relationships with local, state, and federal agencies in efforts to mitigate fire risk. BVES's PSPS covers community outreach efforts to local agencies to evaluate and communicate

potential events efficiently. Specifically, Section 3.8 (“Mutual Aid”) of the BVES Emergency Response Plan[201], Revision 1, indicates the following:

“Mutual aid agreements are an efficient and effective resource multiplier available to BVES restoration efforts. Therefore, it is extremely important that these agreements be maintained current and that staff understand what resources they may provide and how to request the resources.”

Additionally, as provided in Section 6.5 (“Key Partners”) of the PSPS procedure[202], Revision 1, the following list includes pertinent local government agencies and partner organizations for BVES PSPS notifications:

- Local officials (City of Big Bear Lake and San Bernardino County)
- State officials (normally CPUC Energy Division and Safety Enforcement Division)
- San Bernardino County Office of Emergency Services (County OES)
- Big Bear Fire Department
- California Department of Forestry and Fire Protection (CAL FIRE)
- US Forest Service
- San Bernardino County Sheriff’s Department Big Bear Lake Patrol Station
- California Highway Patrol (CHP) Arrowhead Area
- California Department of Transportation (Caltrans)
- Big Bear Area Regional Wastewater Agency (BBARWA)
- Big Bear City Community Services District (CSD)
- Big Bear Lake Water Department (DWP)
- Big Bear Municipal Water District (MWD)
- Southwest Gas Corporation
- Bear Valley Community Hospital
- Bear Valley Unified School District
- Big Bear Chamber of Commerce
- Big Bear Airport District
- Big Bear Mountain Resorts
- Spectrum Communications
- Various cell tower providers

[201] BVERS INC Emergency And Disaster Response Plan Rev2.pdf
[202] BVES INC PSPS Procedures Rev1.pdf

This list overlaps with the list of what is considered critical facilities and infrastructure.

Furthermore, BVES attended the following sessions collaborating with local fire suppression agencies:

- March 9, 2022: Inland Fire Safe Alliance (CALFIRE, USFS, BBFD, SBC FD)
- March 23, 2022: Big Bear Lake General Manager's Meeting (CBBL, DWP, BBARWA, BBFD, SBC Sheriff Department, BB Hospital, BB School District, BBL MWD, SCB CSD BBC)
- March 23, 2022: BVES Emergency Response & Disaster Plan – Stakeholder Meeting (CBBL, BBFD, BBARWA, CBBL DWP, SBC OES, SBC 3rd District Representative), SBC Sheriff Department, SCB CSD BBC
- March 12, 2022: Mountain Mutual Aid Association Meeting (CBBL, CALFIRE, USFS, DWP, BBARWA, BBFD, SBC Sheriff Department, BB Hospital, BB School District, BBL MWD, SCB CSD BBC, American Red Cross)
- June 21, 2022: 2022 BVES Annual PSPS Functional Exercise (local agencies joined the exercise)
- August 9, 2022: Mountain Mutual Aid Association Meeting (CBBL, CALFIRE, USFS, DWP, BBARWA, BBFD, SBC Sheriff Department, BB Hospital, BB School District, BBL MWD, SCB CSD BBC, American Red Cross)
- September 29, 2022: Big Bear Lake General Manager's Meeting (CBBL, DWP, BBARWA, BBFD, SBC Sheriff Department, BB Hospital, BB School District, BBL MWD, SCB CSD BBC)
- November 1, 2022: City Manager Brief and Tour (CBBL)
- December 16, 2022: Meeting with SB County 3rd District Supervisor and Staff (SB County 3rd District Supervisor, SBC FD, BBFD)

Based on the documentation reviewed and the provided list of meetings held with suppression agencies, it was determined that BVES has satisfied this initiative goal.

2.1.5.1.56. Initiative #7.3.10.4: Forest service and fuel reduction cooperation and joint roadmap

BVES subcontracts a company to provide dedicated forester services to the vegetation surrounding BVES's T&D system. BVES provided the contract between BVES and the subcontractor, Davey Resource Group, as well as the forester's service bid response[203]. The scope of work that was requested by BVES states the forester shall be knowledgeable and experienced in the practices and procedures of an integrated vegetation management program. Services will include, but not limited to weekly inspections, quarterly audits, work plan development, and safety observations. The contract was extended through December 20, 2023. S&L concludes BVES is in compliance with this initiative.

[203] C#3090-003 Forester Contract.pdf

2.1.5.2. Trends and Themes

S&L identified several trends and themes during the assessment of the "2022 BVES WMP Qualitative Goal/Target" initiatives:

- In many cases, high-level documents and reports were used to satisfy multiple initiative goals (e.g., Technosylva provides the services for the risk assessment and mapping initiatives – initiatives 7.3.1.1 through 7.3.1.5). This approach is effective in using limited monetary resources to satisfy the goals of the WMP, although a more granular approach to each initiative could help achieve future WMP goals that may become more specific.
- BVES has used the assistance of third-party contractors to complete the work required to meet several of the qualitative initiatives. This is an effective way to satisfy the goals of the WMP while managing the time of BVES staff.
- For many initiatives, no documented procedures or processes governing the performance and control of WMP initiatives were available.
- For most initiatives, BVES did not appear to have a formal written process to control and maintain quality records (e.g., report forms, inspection checklists, work orders) and other documentation.
- Summary-level spreadsheets and similar high-level documents were used to manage and track some initiative activities; however, in many cases, detailed quality records, work orders, and more granular documentation (such as regular inspection reports, checklists, third-party reports, daily/weekly meeting notes, and similar quality records) were provided for review by BVES relatively quickly upon request. This was a significant improvement from previous years.

2.1.6. "Not Applicable" or No Goal/Target Initiatives

In 2022, there were several initiative activities for which no activity was recorded for various reasons. In other cases, the initiative was deemed to be not applicable to BVES. These activities are discussed herein. A list of the initiatives included in this assessment category is provided in Appendix B.

2.1.6.1. Review of Initiatives

2.1.6.1.1. Initiative #7.3.2.1: Situational Awareness Hardware Program [Primary] / Advanced weather monitoring and weather stations

Per the WMP[204], weather stations installed were installed at twenty locations from 2019 to 2021. No weather monitoring stations were installed or uninstalled in 2022. BVES continuous to monitor these weather stations.

[204] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

2.1.6.1.2. Initiative #7.3.2.2.1: Situational Awareness Hardware Program / Continuous monitoring sensors

The acceptability of this initiative is achieved by BVES continuing to work with its partners (University of California San Diego [UCSD], CAL FIRE, and Big Bear Fire Department)to monitor and evaluate the results of the initiative and implement improvements from lessons learned as applicable to ensure a process of continuous improvement is applied to the initiative in 2023. The final HD camera was installed in 2021. BVES continues to evaluate the need for future HD Cameras in its operating territory per the WMP 2022 update[205]. Therefore, based on ongoing cooperation with its partners and completion of hardware installation in previous years of this WMP cycle, BVES has satisfied this initiative.Initiative#7.3.3.3: Covered Conductor Pilot / Covered Conductor installation

This pilot program was completed in 2020 and results were used to develop Initiative #7.3.3.3.1 & 7.3.3.3.2: Covered Conductor Replacement Program (Section 2.1.2.1.1) and Initiative #7.3.3.3.3: Covered Conductor Replacement Program – Radford (Section 2.1.2.1.2).

2.1.6.1.3. Initiative #7.3.3.6.3: Evacuation Route Hardening Program – Pilot / Distribution pole replacement and reinforcement, including with composite poles

BVES completed this pilot program in 2021. Ongoing replacement of distribution poles along the evacuation route is covered in Initiative #7.3.3.6.1: Pole Loading & Replacement Program (Section 2.1.5.1.14).

2.1.6.1.4. Initiative #7.3.3.7: Fuse Replacement Program / Expulsion fuse replacement

BVES completed this program in 2021. No fuses were replaced in 2022.

2.1.6.1.5. Initiative #7.3.3.8: Grid Topology Improvements [Primary] / Grid topology improvements to mitigate or reduce PSPS events

No devices were installed in 2022. Prior assessment of devices was completed in 2019, therefore, no work was needed in 2022.

2.1.6.1.6. Initiative #7.3.3.15: Transmission tower maintenance and replacement

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

[205] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

2.1.6.1.7. Initiative #7.3.3.17: Grid Topology Improvements / Updates to grid topology to minimize risk of ignition in HFTDs

Per the WMP[206], this initiative incorporates any changes to installation, construction, or removal, or any other undergrounding projects. There was no activity in this area in 2022.

2.1.6.1.8. Initiative #7.3.4.2: Asset Management & Inspections - Detailed inspections of transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

2.1.6.1.9. Initiative #7.3.4.5: Asset Management & Inspections - Infrared inspections of transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

2.1.6.1.10. Initiative #7.3.4.8: Asset Management & Inspections - LiDAR inspections of transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

2.1.6.1.11. Initiative #7.3.4.10: Asset Management & Inspections - Other discretionary inspection of transmission electric lines and

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

2.1.6.1.12. Initiative #7.3.4.12: Asset Management & Inspections - Patrol inspections of transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a subtransmission line (34.5 kV) that is treated as a higher voltage asset.

[206] 2022-05-06_BVES_2022_WMP-Update_R1.pdf

2.1.6.1.13. Initiative #7.3.5.3: Vegetation Management & Inspections - Detailed inspections of vegetation around transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a sub transmission line (34.5 kV) that is treated as a higher voltage asset. It was concluded that this initiative is not applicable to BVES.

2.1.6.1.14. Initiative #7.3.5.8: Vegetation Management & Inspections/ LiDAR inspections of vegetation around transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a sub transmission line (34.5 kV) that is treated as a higher voltage asset. It was concluded that this initiative is not applicable to BVES.

2.1.6.1.15. Initiative #7.3.5.10: Vegetation Management & Inspections/ Other discretionary inspection of transmission electric lines

BVES does not have any transmission level assets and maintains a sub transmission line (34.5 kV) that is treated as a higher voltage asset. It was concluded that this initiative is not applicable to BVES.

2.1.6.1.16. Initiative #7.3.5.12: Vegetation Management & Inspections/ Patrol inspections of vegetation around transmission electric lines and equipment

BVES does not have any transmission level assets and maintains a sub transmission line (34.5 kV) that is treated as a higher voltage asset. It was concluded that this initiative is not applicable to BVES.

2.2. VERIFICATION OF FUNDING

S&L reviewed the financial forecasts and actual spending made by BVES for 2022 and documented the instances where BVES spent less than 100% of its forecasted expenditures for WMP activities as part of the initiative funding verification for which S&L was engaged to perform. For each instance of underfunding, S&L requested explanations from BVES, which are documented as part of this report.

S&L first reviewed the total forecasted and actual capital expenditures (CAPEX) and operational expenditures (OPEX) for each of the 10 WMP categories. The forecasted and actual CAPEX and OPEX budgets have been reviewed for each WMP initiative activity within the 10 WMP categories. These evaluations included the review of areas of overspending and underspending.

The following documents related to the funding of WMP categories and initiatives were utilized and analyzed by S&L as part of the review related to the funding of WMP categories and initiatives:

- Bear Valley Electric Service Wildfire Mitigation Plan – 2022 Update Version 1[207]
- BVES's 2022 Annual Report on Compliance (ARC) cost table[208][209]
- Q4 2022 BVES Quarterly Notification[210]
- The fire risk mitigation memorandum account[211]
- The fire hazard prevention memorandum account[212]

2.2.1. General Findings

S&L reviewed the spending for including in the WMP and the total budget forecast for 2022. Table 2-3 shows the spending for wildfire mitigation to be above the total budget forecast by $61,390.70, or 0.30% of the forecasted budget.

Table 2-3 — 2022 WMP Funding Verification Summary

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Risk Assessment & Mapping	121.52	123.57	0.60%	2.04	1.68%
Situational Awareness & Forecasting	304.50	274.68	1.50%	-29.82	-9.79%
Grid Design & System Hardening	15,798.07	14,928.88	77.58%	-869.19	-5.50%
Asset Management & Inspections	748.51	802.68	3.68%	54.17	7.24%
Vegetation Management & Inspections	2,888.60	3,769.42	14.18%	880.82	30.49%
Grid Operations & Operating Protocols	76.73	61.46	0.38%	-15.28	-19.91%
Data Governance	116.91	140.32	0.57%	23.41	20.03%
Resource Allocation Methodology	67.45	68.85	0.33%	1.40	2.08%
Emergency Planning & Preparedness	172.78	182.16	0.85%	9.37	5.43%

[207] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[208] 20230331_BVES_2022_ARC_R0.pdf
[209] BVES_2022 ARC 20230331_SL Requests 20230530 (BVES Response).xlsx
[210] BVES Quarterly Notification_QNL_Q4_RO.pdf
[211] BVE fire mitigation 68552 thru 12-31-2022 clean.xlsx
[212] BVE fire prevention 1670.41 (subledger 68388 and 25947) thru 12.31.2022-Clean copy.xlsx

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Stakeholder Cooperation & Community Engagement	68.86	73.31	0.34%	4.45	6.47%
Total	20,363.92	20,425.31	100.00%	61.39	38.22%

The majority of the WMP budget forecast was attributed to the "Grid Design & System Hardening," which composes 77.58% of the total budget. A minor portion of the forecasted budget was attributed to "Resource Allocation Methodology" and "Stakeholder Cooperation & Community Engagement," which total less than 1% of the allocation and compose 0.67% of the total forecasted budget. BVES has overspent approximately 0.30% of its forecasted budget. Details on budget underspending for specific WMP categories pertaining to the CAPEX and OPEX are presented in Section 2.2.2 and Section 2.2.3, respectively.

2.2.2. Findings for CAPEX Spending

The total CAPEX spending included in the WMP during 2022 was below the forecasted budget by approximately $877,000. Table 2-4 shows the overspent and underspent amount for each WMP category.

Table 2-4 — WMP CAPEX Budget Allocation per Category

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Risk Assessment & Mapping	–	–	–	–	–
Situational Awareness & Forecasting	263.26	244.03	1.63%	-19.23	-7.30%
Grid Design & System Hardening	15,521.89	14,633.38	96.35%	-888.51	-5.72%
Asset Management & Inspections	194.01	203.94	1.20%	9.93	5.12%
Vegetation Management & Inspections	130.00	150.69	0.81%	20.69	15.91%
Grid Operations & Operating Protocols	–	–	–	–	–
Data Governance	–	–	–	–	–
Resource Allocation Methodology	–	–	–	–	–

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Emergency Planning & Preparedness	–	–	–	–	–
Stakeholder Cooperation & Community Engagement	–	–	–	–	–
Total	16,109.16	15,232.03	100%	-877.13	-5.44%

The CAPEX forecasted budget was attributed to four WMP categories: “Situational Awareness & Forecasting,” “Grid Design & System Hardening,” “Asset Management & Inspections,” and “Vegetation Management & Inspections.” There were no CAPEX funds forecasted or spent for the remaining six WMP categories. The CAPEX forecasted budget was primarily allocated to “Grid Design & System Hardening,” specifically 96.35%. The minimum forecasted budget was attributed to “Asset Management & Inspections” (1.20%) and “Vegetation Management & Inspections” (0.81%), totaling 2.01%. The two WMP categories which had expenditures below the forecasted CAPEX budget were “Situational Awareness & Forecasting” and “Grid Design & System Hardening.” Details pertaining to the underspending within these two categories are detailed below.

Spending for “Situational Awareness & Forecasting” was below the forecasted budget by approximately 7.30%, which is the biggest underspending percentage among the WMP categories. The biggest driver for the underspending was under the “Situational Awareness Hardware Program” initiative (Initiative 7.3.2.3.), accounting for 100% of the underspending for the category. The actual costs to achieve the required scope of work for the pole loading infrastructure hardening and replacement program was under the projection. However, the initiative target was achieved.

The WMP category with the most significant allocated forecasted budget was “Grid Design & System Hardening,” where 5.72% of the total CAPEX forecasted budget was underspent. Certain initiatives within the category were the biggest drivers for the underspending, with “Covered Conductor Project – Radford Line” (Initiative 7.3.3.3. and 7.3.3.6.2.) being the biggest contributor for the underspending within the WMP category. Due to the Radford project being delayed beyond 2022 as a result of permit processing with the USFS, BVES has only allocated 8.8% of the forecasted budget towards the Radford project and anticipates obtaining the permit mid-2023.

The category “Vegetation Management & Inspections” exceeded the forecasted CAPEX budget by approximately 15.91%. S&L has identified the “Inspection Improvement Activities” initiative (Initiative 7.3.5.6.) as being the motive for the overspending of its allocated CAPEX forecasted budget. This was due

to an increased effort and cost for the implementation of improved inspection initiatives, which was higher than expected. This resulted in an increase in labor hours dedicated to implementing new inspection documentation applications.

There were seven initiatives where the spend within the CAPEX category were below the forecasted budget. Table 2-5 shows a breakdown of the details pertaining to the underspending of the initiatives within the corresponding categories:

Table 2-5 — WMP Funding Verification Summary, CAPEX Budget Underspends

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Situational Awareness & Forecasting	7.3.2.3.	Fault indicators for detecting faults on electric lines and equipment	Page 145	-$19.23	The forecasted budget for the initiative was $263,260, while the actual spending was $244,030. The spending was below the forecasted budget by 7%. The actual cost to achieve the required scope of work for pole loading infrastructure hardening and replacement program was below the projection for the initiative. BVES surpassed its 2022 goal of installing 50 fault indicators by installing 99 fault indicators. The target for the initiative was achieved.
Grid Design & System Hardening	7.3.3.13.	Pole loading infrastructure hardening and replacement program based on pole loading assessment program	Page 172	-$204.32	The forecasted budget for the initiative was $1,216,160, while the actual spending was $1,011,840. The spending was below the forecasted budget by 17%. In a similar manner to Initiative 7.3.2.3., the actual cost to achieve the required scope of work for pole loading infrastructure hardening and replacement program was below the projection for the initiative. BVES supplied a detailed spreadsheet that listed the old pole number, new pole number, pole type, circuit, date construction was completed, and GPS coordinates. The field verification team was able to inspect 118 poles, with 15 poles confirmed to be installed, but did not meet quality of work expectations; however, the target for the initiative was achieved.

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Grid Design & System Hardening	7.3.3.14.	Transformers maintenance and replacement	Page 173	-$70.00	The forecasted budget for the initiative was $70,000, while the actual spending was $0. The spending was below the forecasted budget by 100%. Zero transformers were purchased due to the inventory not going below minimum. The target for the initiative was achieved.
Grid Design & System Hardening	7.3.3.3.3	Covered conductor installation	Page 152	-$1,126.96	The forecasted budget for the initiative was $1,235,990, while the actual spending was $109,030. The spending was below the forecasted budget by 91%. The Radford project was delayed beyond 2022 as a result of the permit being in process with the USFS. The scope of work and target for the initiative were not met.
Grid Design & System Hardening	7.3.3.6.2.	Distribution pole replacement and reinforcement, including with composite poles	Page 158	-$3,995.58	The forecasted budget for the initiative was $4,382,140, while the actual spending for the initiative was $386,560. The spending was below the forecasted budget by 91%. The Radford project was delayed beyond 2022 as a result of the permit being in process with the USFS. The scope of work and target for the initiative were not met.
Grid Design & System Hardening	7.3.3.6.4.	Distribution pole replacement and reinforcement, including with composite poles	Page 157	-$187.01	The forecasted budget for the initiative was $576,800, while the actual spending was $389,790. The spending was below the forecasted budget by 32%. The labor hours that were required to install the wire mesh as part of the evacuation route hardening program was lower than anticipated. The target for the initiative was achieved.

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Asset Management & Inspections	7.3.4.13.	Pole loading assessment program to determine safety factor	Page 187	$-10.75	The forecasted budget for the initiative was $64,010, while the actual spending was $53,250. The spending was below the forecasted budget by 17%. The actual cost to achieve the required scope of work for the pole loading assessment program was less than projected. The target for the initiative was achieved.

2.2.3. Findings for OPEX Spending

The total spending for the WMP OPEX during 2022 was below the forecasted budget. Table 2-6 shows a detailed breakdown of the budget allocation for each category, with the overall expenditure being above the forecasted budget by $938,511.78.

Table 2-6 — WMP OPEX Budget Allocation per Category

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Risk Assessment & Mapping	121.52	123.57	2.86%	2.04	1.68%
Situational Awareness & Forecasting	41.24	30.65	0.97%	-10.59	-25.68%
Grid Design & System Hardening	276.18	295.50	6.49%	19.32	7.00%
Asset Management & Inspections	554.50	598.74	13.03%	44.24	7.98%
Vegetation Management & Inspections	2758.60	3618.73	64.8%	860.13	31.18%
Grid Operations & Operating Protocols	76.73	61.46	1.8%	-15.28	-19.91%
Data Governance	116.91	140.32	2.75%	23.41	20.02%
Resource Allocation Methodology	67.45	68.85	1.59%	1.4	2.08%
Emergency Planning & Preparedness	172.78	182.16	4.06%	9.38	5.43%

WMP Category	Dollars ($000)		Category % of Total Forecast	Variance (Over [+] or Under [-] Spent)	
	Forecast	Actual		Dollars ($000)	% of Forecast
Stakeholder Cooperation & Community Engagement	68.86	73.31	1.62%	4.45	6.46%
Total	4254.77	5193.28	100%	938.51	22.08%

The majority of the WMP OPEX budget was allocated to the category “Vegetation Management & Inspections,” making up approximately 64.8% of the total OPEX budget. In turn, the WMP categories with the most minor allocations included “Situational Awareness & Forecasting,” “Resource Allocation Methodology,” and “Stakeholder Cooperation & Community Engagement,” with approximately 0.97%, 1.59%, and 1.62% of the budgets allocated to the categories, respectively.

Similarly, the category “Vegetation Management & Inspections” showed an overspending variance from the OPEX budget by approximately 31.18%. The overspend was caused by the enhanced vegetation management program initiative, specifically Initiative 7.3.5.2. and 7.3.5.11, which had a 95% overspending each. The labor hours to achieve the intended scope of work was higher than forecasted. The BVES Field Inspector is utilizing a more thorough approach, which increases the hours per circuit mile. The intended scope of work for both initiatives was achieved.

Another WMP category with significant overspending was “Data Governance,” with approximately 20.02% spent over its forecasted budget. Initiative 7.3.7.1., specifically GIS-based applications, had a 22% over variance within the category. This was due to the actual costs to continue upgrading the GIS database being higher than estimated. The GIS database confirms the data schema required to document WMP initiatives and grid assets.

The WMP categories with the most significant underspending variance from the forecasted budget were “Situational Awareness & Forecasting” and “Grid Operations & Operating Protocols,” with approximately -25.68% and -19.91% underspending, respectively. The initiatives underspent within the “Situational Awareness & Forecasting” category included those which pertained to the weather station installation program and situational awareness hardware program. Under “Grid Operations & Operating Protocols,” the initiative pertaining to PSPS re-energization protocols, specifically Initiative 7.3.6.5., was the cause for the underspending within the category. More details regarding the underspending for the 13 initiatives within the six categories are shown in Table 2-7.

Table 2-7 — WMP Funding Verification Summary, OPEX Budget Underspends

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Situational Awareness & Forecasting	7.3.2.1	Advanced weather monitoring and weather stations	Page 141	-$0.27	The forecasted budget for the initiative was $3720, while the actual spending was $3450. The spending was below the forecasted budget by 7%. The actual cost to achieve the required scope of work for the initiatives was less than projected. This was due to the weather stations being relatively new, specifically under three years old. No weather monitoring stations were installed or uninstalled in 2022. The target for the initiative was not applicable.
Situational Awareness & Forecasting	7.3.2.5.	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Page 148	-$11.52	The forecasted budget for the initiative was $11,520, while the actual spending was $0. The spending was below the forecasted budget by 100%. BVES did not experience any elevated fire risk events requiring staff to monitor areas of electric lines and equipment in elevated fire risk conditions in 2022. The target for the initiative was met.
Asset Management & Inspections	7.3.4.4.	Infrared inspections of distribution electric lines and equipment	Page 179	-$5.21	The forecasted budget for the initiative was $59,400, while the actual spending was $54,190. The spending was below the forecasted budget by 9%. The actual cost to achieve the required scope of work for the thermography inspection program was less than projected. The full scope of work and target for the initiative were met.
Asset Management & Inspections	7.3.4.6.	Intrusive pole inspections	Page 180	-$14.18	The forecasted budget for the initiative was $33,000, while the actual spending was $18,820. The spending was below the forecasted budget by 43%. BVES was able to contract the work for a lower cost than projected. The intrusive inspections target was 850; in total, 853 intrusive inspections were completed in 2022. The intended scope of work and target for the initiative were achieved.

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Asset Management & Inspections	7.3.4.7.	LiDAR inspections of distribution electric lines and equipment	Page 181	-$2.98	The forecasted budget for the initiative was $65,000, while the actual spending was $62,030. The spending was below the forecasted budget by 5%. The actual cost to achieve the required scope of work for the LiDAR inspection program was less than projected. The full scope of work and target for the initiative were achieved.
Asset Management & Inspections	7.3.4.9.1.	Other discretionary inspection of distribution electric lines and equipment beyond inspections mandated by rules and regulations / third-party ground patrol	Page 183	-$16.35	The forecasted budget for the initiative was $40,000, while the actual spending was $23,660. The spending was below the forecasted budget by 41%. BVES was able to contract the work for a lower cost than projected. The goal for the initiative was 211 circuit miles, which was achieved in 2022. The intended scope of work and target for the initiative were achieved.
Asset Management & Inspections	7.3.4.9.2	Other discretionary inspection of distribution electric lines and equipment beyond inspections mandated by rules and regulations / UAV HD photography / videography inspection program	Page 183	-$5.21	The forecasted budget for the initiative was $59,400, while the actual spending was $54,190. The spending was below the forecasted budget by 9%. The actual cost to achieve the required scope of work for the UAV HD photography / videography inspection program was less than projected. The full scope of work and target for the initiative were achieved.
Vegetation Management & Inspections	7.3.5.7.	Remote sensing inspections of vegetation around distribution electric lines and equipment	Page 195	-$2.98	The forecasted budget for the initiative was $65,000, while the actual spending was $62,030. The spending was below the forecasted budget by 5%. Similar to Initiative 7.3.4.7., the actual cost to achieve the required scope of work for LiDAR inspection program was less than projected. The full scope of work and target for the initiative were achieved.

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Vegetation Management & Inspections	7.3.5.9.	Other discretionary inspections of vegetation around distribution electric lines and equipment / third-party ground patrol	Page 197	-$16.35	The forecasted budget for the initiative was $40,000, while the actual budget was $23,660. The spending was below the forecasted budget by 41%. BVES was able to contract the work for a lower cost than projected. The intended scope of work and target for the initiative were achieved.
Vegetation Management & Inspections	7.3.5.9.2	Other discretionary inspections of vegetation around distribution electric lines and equipment / UAV HD photography / videography inspection program	Page 198	-$5.21	The forecasted budget was $59,400, while the actual budget for the initiative was $54,190. The spending was below the forecasted budget by 9%. Similar to Initiative 7.3.4.9.2., the actual cost to achieve the required scope of work for UAV HD photography / videography inspection program was less than projected. The full scope of work and target for the initiative were achieved.
Grid Operations & Operating Protocols	7.3.6.5.	Protocols for PSPS re-energization	Page 215	-$18.03	The forecasted budget for the initiative was $28,160, while the actual spending was $10,130. The spending was below the forecasted budget by 64%. The actual costs were lower than projected due to BVES not invoking any PSPS events in 2022. The target for the initiative was met.
Emergency Planning & Preparedness	7.3.9.3.	Customer support in emergencies	Page 226	-$12.01	The forecasted budget for the initiative was $61,980, while the actual spending was $49,980. The spending was below the forecasted budget by 19%. The actual cost to achieve the intended scope of community support for emergencies was less than projected. The threshold for meeting the goal of the initiative was “customer support in emergencies.” Zero emergencies occurred in 2022, thus, the target for the initiative was achieved.

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount ($000)	Detail on Funding Discrepancy
Stakeholder Cooperation & Community Engagement	7.3.10.1.	Community engagement	Page 233	-$4.24	The forecasted budget for the initiative was $30,740, while the actual spending was $26,490. The spending was below the forecasted budget by 14%. The actual cost to achieve the required scope of community engagement was less than projected. The target for the initiative was met.

2.2.4. Funding Verification Conclusion

S&L reviewed the 2022 WMP budget and actual spend for each initiative, considering CAPEX and OPEX separately. Overall, BVES spend for wildfire mitigation in 2022 was above the total budget forecast. However, S&L identified seven initiatives for which actual CAPEX was less than the budgeted amount and 13 initiatives for which actual OPEX was less than the budgeted amount. S&L reviewed the explanations provided by BVES for each instance of CAPEX and OPEX underspend which may indicate underfunding. For all but two of the initiatives, the initiative was still met. The variance for the initiatives where there was underspending was mainly due to a difference in assumptions for the initiative budget compared to the actual amount required.

The two instances for the unmet initiatives were with “Covered Conductor Project – Radford Line” (Initiative 7.3.3.3. and 7.3.3.6.2.). As mentioned previously, the project has been delayed beyond 2022 due to delayed permitting. Therefore, S&L concludes that the risk reduction intent for the initiatives was not met; however, BVES made progress towards the initiative.

2.3. VERIFICATION OF QA/QC PROGRAMS

As part of the WMP compliance, S&L reviewed BVES’s QA/QC programs. S&L also reviewed available documentation and conducted interviews of BVES SMEs to validate these QA/QC programs.

Following an initial S&L request for QA/QC programs related to the WMP initiatives, BVES indicated that, in general, they do not have formal written QA/QC procedures, processes, or programs for controlling WMP activities. Their process is quoted below from 2021 and was confirmed again by BVES in 2023[213]:

> QA/QC process for WMP work – we do not have a formal written process. This [is] the process we utilize:

[213] BVES Email Response from Tom Chou, 6/12/2023.

a) Contractor's design/planning group develops work package (instructions, drawings, materials, etc.).

b) All work is reviewed by BVES prior to construction to ensure the accuracy of the scope, design, material, and supporting documentation. This review is conducted by the BVES Field Inspector and/or the Engineering & Planning Department.

c) Once BVES approves the work package, BVES orders material and/or draws from stock if available.

d) At BVES's direction, Contractor performs the specific work.

e) BVES Field Inspector monitors the work in progress and performs regular progress inspections.

f) When Contractor reports work is complete, BVES Field Inspector performs final inspection of the work in the field and performs the initial work package audit. Upon approval of field work and work package, an initial billing review is performed and approval for invoicing is given.

g) Upon receipt of an invoice, the Project Coordinator performs a work package audit and validates the materials and work performed. Project Coordinator also performs a validation of billing units and ensures the Field Inspector's verification of work completion and approval for billing.[214]

With the exceptions of the vegetation management, risk management, and emergency preparedness programs, the lack of written QA/QC programs for WMP compliance is pervasive throughout all target categories. As a note, in 2022 BVES formally implemented new tools (e.g., iRestore), continued to make progress on updating their GIS database, and made some significant QA/QC program updates.

For each category, a description and method of validation for the relevant BVES QA/QC programs have been provided.

2.3.1. Category #1: Risk Assessment and Mapping

BVES has no formal written QA/QC programs or processes for WMP compliance of this category. Risk Assessment and Mapping had no formal goals set, and all future work is expected to be done by Technosylva. BVES signed the scope of work agreement with Technosylva[215], and work will be performed to the standards as stated in the contract. Beyond this, there are no written QA/QC documents for this WMP category.

[214] Email from Paul Marconi. "BVES RFI: Complete listing, description, and support files of existing QA/QC programs in place to ensure compliance with WMPs." 2021 May 26.
[215] C#3234-000 REV For Signature-TSYL_SIGNED1.pdf

2.3.2. Category #2: Situational Awareness and Forecasting

BVES does not have a formal QA/QC program for initiatives in this category. BVES uses its PSPS[216] in tandem with its WMP[217] to proactively manage ignition risks. The PSPS covers daily operational efforts to make advanced preparations ahead of the fire season that includes collaborating with a contracted weather consultant that utilizes the NFDRS detailed in Section 2.1.5.1.7 and 2.1.5.1.9. Performance is primarily driven by summary-level spreadsheets. Weekly forecast records where yearly initiative specific progress is tracked and recorded are utilized. S&L finds that this documentation, coupled with management direction and continuous assessment of its PSPS, provides sufficient guidance for staff to fulfill the relevant initiative requirements; however, more formalized, and written QA/QC programs and processes for WMP compliance would be beneficial.

2.3.3. Category #3: Grid Design and System Hardening

BVES does not have a formal QA/QC program for initiatives in this category. These initiatives cover BVES efforts to mitigate the usage of the PSPS as well as making a number of system-hardening investments. Per the WMP 2022 update[218], ongoing assessment of BVES assets are governed by its maintenance plan and budget is allocated towards remediation efforts.

In lieu of a QA/QC program, the capacitor and transformer maintenance program are part of BVES's ongoing maintenance plan for their sub-transmission and distribution facilities. Per the WMP 2022 update, these protocols indicate that these assets—which include capacitors, circuit breakers, covered conductors, crossarms, connectors and transformers—are assessed using their standard inspections program[219].

BVES has a detailed inspection program that is documented in Section 2.1.3.1.1. Repairs and maintenance of these assets are addressed as issues arise during regular patrol that is captured during normal operation. It was confirmed that issues are promptly addressed with the large volume field verifiable work orders being completed in a timely manner to exceed their set target. S&L's QEW field verification team indicated that BVES assets met/exceeded quality expectations that aligns with BVES. This documentation, coupled with management direction, provides sufficient guidance for staff to fulfill the relevant initiative requirements.

2.3.4. Category #4: Asset Management and Inspections

The BVES quality management plan[220] was published in December 2021 and was beginning to be implemented in 2022. The implementation of "Asset Management & Inspections" was discussed with SMEs

[216] BVES INC PSPS Procedure Rev1.pdf
[217] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[218] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[219] 2022-05-06_BVES_2022_WMP-Update_R1.pdf
[220] BVES INC Quality Management Plan

Jared Hennen[221] and Tom Chou.[222] The roll-out of the Quality Assurance aspect of the plan is still in progress. From a quality control perspective, results from the inspection sources—including LiDAR, UAV, and third-party ground inspection—are received and validated by BVES's own inspections. Any encroachment, clearance, or other issues are field verified during regular patrol and detailed inspections, then corrective actions are performed as needed.

In 2022, the primary improvement to BVES's Asset Management and Inspections was the implementation of the software program, iRestore, which is a repository for the internal inspection results and resistograph results. This program is continuing to be improved to gain efficiencies, as it is currently used in conjunction with Excel spreadsheets to identify required actions and their completion. Eventually, operators should perform their own data entry of inspection results, rather than relying on a point-person to do all the data entry. A challenge faced by BVES is the vast amount of data received from all of the inspections performed. Per BVES SME interview[223], they believe that significant issues are being promptly addressed, but that they are running so many inspections that it is hard to keep up with the more minor repairs such as missing high voltage signs. Based on the information reviewed and the interviews conducted, BVES is adequately implementing Asset Management and Assessments. Improvement could be realized in the area of quality assurance (procedures, audits, inspection and test plants, documentation, and training).

2.3.5. Category #5: Vegetation Management and Inspections

BVES maintains and upholds a QA/QC program that adheres to all relevant vegetation management work activities[224]. This QC Program contains the processes and requirements for BVES to adhere to the Vegetation Management (VM) program and VM QA/QC program. This program adheres to the compliance plan for inspection procedures[225] to requirements of the jobsite that include Facility Inspection, GO 165 inspection cycles, patrol and detailed condition ratings and their final approvals. Additionally, the compliance plan includes Circuit Patrol and Detailed Inspection for Overhead Structures and Equipment, Detailed Inspection for Underground Facilities/Equipment and Padmount Transformers, and Intrusive Inspections of Wood Pole Structures. The Vegetation Management and Inspections require contracts for third party inspection services at BVES[226] as well as the forestry work and the contractual requirements[227] of that performed work. These inspections records from BVES and third parties were thoroughly reviewed and supporting documentation was accounted for and provided by BVES. It was determined that BVES has

[221] Jared Hennen, May 31, 2023
[222] Tom Chou Interview, June 8, 2023
[223] Jared Hennen, May 31, 2023
[224] BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1.pdf
[225] BVES GO 165 Compliance Plan.pdf
[226] C#3095-002 Vegetation Management.pdf
[227] C#3090-003 Forester Contract.pdf

a robust vegetation management QA/QC program that effectively controls all related initiative activities and adequately defines personnel roles and responsibilities.

2.3.6. Category #6: Grid Operations and Protocols

BVES has no formal written QA/QC programs or processes for WMP compliance of this category. Their performance is governed by the emergency response plan[228] and the PSPS procedure[229]. The emergency response plan outlines the responsibilities, organization, preparations, emergency response procedures, communications plan, and customer support plan. The PSPS procedure identifies the chain of responsibility, the fire protection procedures, the PSPS procedures, and the PSPS outreach plan. The plan and procedure, along with management direction, provide sufficient guidance for staff to fulfill the relevant initiative requirements.

2.3.7. Category #7: Data Governance

BVES has no formal written QA/QC programs or processes for WMP compliance of this category. Initiative 7.3.7.1. refers to the GIS which only had a qualitative goal of continued improvement. While this goal was achieved, a QA/QC program does not apply to meet the goal. For Initiative 7.3.7.2., no goal was set and no work was performed, so an informal QA/QC program also does not apply. Initiative 7.3.7.3. covers documentation and disclosure of wildfire related data and algorithms. BVES does not have any formal QA/QC program to dictate how the disclosure of this information will be carried out. Initiative 7.3.7.4 covers tracking and analysis of near miss data. While BVES has been consistent in using the same outage log[230] format for multiple years, there is no formal QA/QC program associated with the use of this tool.

2.3.8. Category #8: Resource Allocation Methodology

BVES has no formal written QA/QC program or processes for WMP compliance of this category. Resource allocation covers all activities related to risk mitigation and the spending of limited resourced to best mitigate those risks. BVES uses the fire safety circuit matrix[231] and the risk registry[232] to determine the budget for each mitigation activity. These documents contain several pages detailing how to calculate various risk and impact values, which is an informal method to maintain the quality of data entered into the sheets, but it is not considered a formal QA/QC program.

[228] BVERS INC Emergency and Disaster Response Plan Rev2.pdf
[229] BVES INC PSPS Procedure Rev1.pdf
[230] 2022 Outage Log.xlsx
[231] FireSafetyCircuitMatrix 2023-1-10.xlsx
[232] BVES Risk Registry 2022-3-11.xlsm

2.3.9. Category #9: Emergency Planning and Preparedness

BVES has no formal written QA/QC programs or processes for WMP compliance of this category. Their performance is governed by the emergency response plan[233] and the PSPS procedure.[234] The emergency response plan outlines the responsibilities, organization, preparations, emergency response procedures, communications plan, and customer support plan. The PSPS procedure identifies the chain of responsibility, the fire protection procedures, the PSPS procedures, and the PSPS outreach plan. The plan and procedure, along with management direction, provide sufficient guidance for staff to fulfill the relevant initiative requirements. BVES performance in this target category is governed primarily by these plan and procedure documents as well as summary level spreadsheets, PSPS scripts, and similar documentation where yearly initiative specific progress is tracked and recorded. This documentation, coupled with management direction, provides sufficient guidance for staff to fulfill the relevant initiative requirements.

2.3.10. Category #10: Stakeholder Cooperation and Community Engagement

There are two relevant formal written QA/QC documents for the initiatives contained in this WMP target category: the BVES emergency response plan[235] and PSPS procedures[236]. Both procedures provide guidance and methodology for public outreach, engagement, and communication with respect to relevant initiatives for each program. Excel files are used to track engagement methods (social media posts, newspaper ads, community briefings, etc.) where quarterly progress is well tracked to meet yearly initiative specific target engagements. This documentation, coupled with management direction, provides sufficient guidance for staff to fulfill the relevant initiative requirements.

[233] BVERS INC Emergency and Disaster Response Plan Rev2.pdf
[234] BVES INC PSPS Procedure Rev1.pdf
[235] BVES INC Emergency and Disaster Response Plan Rev2.pdf
[236] BVES INC PSPS Procedure Rev1.pdf

3. CONCLUSIONS

In general, S&L found BVES to be cooperative, responsive, transparent, and knowledgeable during the WMP compliance assessment. BVES did not hesitate to have one or several SMEs attend virtual interviews and respond to clarifications with short notice. In previous years, the most common obstacle encountered by S&L evaluators during the BVES assessment was lack of documentation availability and long turnaround times, especially for more granular quality records and inspection reports. However, this year, these documents were provided for review by BVES relatively quickly upon request. Implementation of new database software (e.g., iRestore) and further updates to the GIS seems to have significantly improved access to detailed BVES records and documentation. Overall, the S&L assessment team found that BVES supported the S&L WMP review efforts to the best of their ability.

With respect to the WMP activity completion, of the 101 total initiatives, 84 initiatives had goals / relevant 2022 activity not related to transmission lines and S&L found that BVES complied with their plan and met the indicated target goals for all but 4 of those WMP initiatives. The instances where BVES did not meet the WMP initiative goal, the intent of the initiative was substantially achieved despite not meeting the specific target. In this case, two of the four initiatives that did not meet their goals were due to delays in receiving permitting from the USFS pushing the Radford covered conductor installation and distribution pole replacement / reinforcement past 2022 with no significant progress despite effort and expenditures being made for permitting and related activities. The “online diagnostic system pilot” project was delayed past 2022 due to procurement and subcontractor delays. Therefore, the goal was not met. The relevant equipment arrived mid-2023 and will be installed soon. With regard to the “quality assurance / quality control of inspections” initiative (7.3.4.14), BVES was completing quality control activities; however, objective evidence of quality assurance overview of the activities being performed was not provided and, therefore, the goal was not met.

BVES did not have specific target goals or relevant activity for 19 of the 101 2022 initiatives, and an additional 17 initiatives were not applicable to BVES, as the utility does not have any transmission line assets or has determined no need for the relevant 2022 initiative activity. Assessment of the no-goal initiatives was somewhat challenging, as determining WMP compliance was subjective. Despite more rapid access to requested records and documentation this year, a general lack of more granular documentation and detailed quality plans, processes, and procedures was also identified for many of the WMP initiatives. This made the review of some initiatives heavily reliant on BVES SME interviews, clarifications, and verbal or informal explanations to determine how BVES controls relevant initiative activity. Overall, the S&L assessment team found that BVES strove to comply with each of the WMP initiative goals to the best of their ability and appears to be proactive in the process of improving compliance-related documentation, record controls, staffing, and expanding capabilities for future WMP activities.

Regarding verification of funding for each WMP activity, S&L was able to obtain and compare budgets and actuals, including percentage variance, for each initiative activity defined by Energy Safety, considering CAPEX spending separate from OPEX spending. In general, it was found that BVES spending for wildfire mitigation in 2022 was above the total budget forecast. However, S&L identified 7 initiatives for which actual CAPEX spending was less than the budgeted amount and 13 initiatives for which actual OPEX spending was less than the budgeted amount. S&L reviewed the explanations provided by BVES for each instance of CAPEX and OPEX underspend which may indicate underfunding. For all but two of the initiatives, the initiative was still met. The variance for the initiatives where there was underspending was mainly due to a difference in assumptions for the initiative budget compared to the actual amount required to perform the activities.

The greatest driver for the CAPEX underspending was under the “Grid Design & System Hardening” WMP category. Certain initiatives within the category were the biggest drivers for the underspending, with “Covered Conductor Project – Radford Line” (Initiative 7.3.3.3. and 7.3.3.6.2.) being the biggest contributor for the underspending within the WMP category. Due to the Radford project being delayed beyond 2022, as a result of permit processing with the USFS, BVES has only allocated 8.8% of the forecasted budget and anticipates obtaining the permit mid-2023.

With respect to OPEX, the WMP categories with the most significant underspending variance from the forecasted budget were “Situational Awareness & Forecasting” and “Grid Operations & Operating Protocols.” The initiatives underspent within the “Situational Awareness & Forecasting” category included those which pertained to weather station installation program (which was completed in 2021) and situational awareness hardware program (BVES did not experience any elevated fire risk events requiring staff to monitor areas of electric lines and equipment in elevated fire risk conditions in 2022). Under “Grid Operations & Operating Protocols”, the initiative pertaining to PSPS Re-Energization Protocols, specifically 7.3.6.5, was the responsible for the underspending within the category. The actual costs for this initiative were lower than projected due to BVES not invoking any PSPS events in 2022.

The two instances for the underfunded unmet initiatives were with “Covered Conductor Project – Radford Line” (Initiative 7.3.3.3. and 7.3.3.6.2.). As mentioned previously, the project has been delayed beyond 2022 due to delayed permitting. Therefore, S&L concludes that the risk reduction intent for the initiatives was not met; however, BVES made progress towards the initiative.

With respect to the QA/QC programs for WMP compliance, as in previous years, BVES indicated that they typically do not have formal written QA/QC procedures, processes, or programs for controlling most of their WMP activities. BVES SME interviews and review of available documentation confirmed that—with the exceptions of the vegetation management, risk management, and emergency preparedness programs—

the lack of written programs was prevalent throughout all 10 target WMP categories. Despite this, S&L also found that BVES's utilization of informal procedures and team communication to govern and control the majority of their WMP compliance activities was effective; however, it was also clear that detailed written programs and processes would provide enhanced quality controls as well as a more granular understanding of how WMP initiative-specific documents and records are generated, maintained, and updated as well as what specific quality records (or lower-tier documents) may be used to populate them. In general, implementation of new database software (e.g., iRestore) and further updates to the GIS seems to have significantly improved access to detailed BVES records and documentation. Additionally, BVES indicated that further software and database improvements are ongoing and additional QA/QC programs, plans, and processes for WMP activities are planned for future years.

Based on the S&L compliance assessment of the WMP initiative activities discussed in Section 2, the relevant deficiencies are summarized in Table 3-1:

Table 3-1 — Findings Summary

No.	2022 Initiative Number	SOW Category	Initiative Name	Finding	Detail on Finding
1	7.3.2.2.2	WMP Activity Completion	Online Diagnostic System Pilot / Continuous monitoring sensors	Initiative goal not met.	This project was delayed past 2022 due to procurement and subcontractor delays. The relevant equipment arrived mid-2023 and will be installed soon.
2	7.3.3.3.3	WMP Activity Completion	Covered conductor installation / Covered Conductor Replacement Program - Radford	Initiative goal not met.	There have been delays in getting permitting from US Forest Service and therefore this initiative has not made any progress in 2022.
3	7.3.3.6.2	WMP Activity Completion	Distribution pole replacement and reinforcement, including with composite poles / Covered Conductor Project - Radford Line	Initiative goal not met.	There have been delays in getting permitting from US Forest Service and therefore this initiative has not made any progress in 2022.

No.	2022 Initiative Number	SOW Category	Initiative Name	Finding	Detail on Finding
4	7.3.3.6.4	WMP Activity Completion	Evacuation Route Hardening Program / Distribution pole replacement and reinforcement, including with composite poles	S&L field verification team discovered a gap in the fire wrap exposing timber on pole #13585BV.	The fire wrap gap was due to an existing structural support attached to the timber when the wrap was installed. This issue was not identified on other poles inspected. The fire wrap present above the support was found to adhere to the installation document. This document was silent in providing direction on how to appropriately deal with structural attachments. While BVES is technically in compliance with this initiative, there are still potential fire ignition risk due to the portion of exposed pole.
5	7.3.3.12.2	WMP Activity Completion	Tree Attachment Removal Program	Instances of service wires installed at a hard angle were observed at two poles in the selected sample that could result in the insulation deteriorating and potentially creating a fire risk.	BVES re-inspected the two poles and found that no service wires were installed at a hard angle. However, the landscape of the installation location of the second pole compromised efforts to reduce slack in the service wire. BVES pledged to remediate this issue. The initiative goal was met.
6	7.3.4.14	WMP Activity Completion	Quality assurance / quality control of inspections	Initiative goal not met.	BVES is completing Quality Control activities; however, objective evidence of Quality Assurance overview of the activities being performed was not provided.
7	7.3.5.6	WMP Activity Completion	Vegetation Management & Inspections - Improvement of inspections / Quality Control of Inspections	The quarterly updates did not contain information and validation regarding implementation of quality processes as expected in typical audit record.	There was no validation of effective implementation of controls, planning, processes, or methods to ensure quality and mitigate risk of error nor was there any inclusion of typical quality audit findings or reports. Though not a typical quality audit within a common QA program, these documents do contain records of the activity that had occurred in the previous quarter. While the quarterly updates could be considered an “audit” by definition, these documents do not appear to contain information typically expected in a quality audit.

No.	2022 Initiative Number	SOW Category	Initiative Name	Finding	Detail on Finding
8	--	WMP Activity Completion	--	Many of the BVES qualitative initiative goals/targets were not well defined or measurable (e.g., circuit miles) with clearly scheduled milestone dates.	--
9	--	Funding Verification	--	7 initiatives had actual spending below the budget projections for CAPEX.	The details for the spend below the budget is provided in Table 2-5.
10	--	Funding Verification	--	13 initiatives had actual spending below the budget projections for OPEX	The details for the spend below the budget is provided in Table 2-7.
11	--	Verification of QA/QC Program	--	With few exceptions, BVES does not have formal written QA/QC programs for controlling WMP activities.	While not having formal written programs and procedures is not necessarily a problem by itself, this can introduce quality risks where there is employee turnover, new employees, larger work forces, and more complex initiatives.
12	--	Verification of QA/QC Program	--	For most initiatives, BVES did not appear to have a formal written process to control and maintain quality records and other documentation.	The general lack of a formal document control system meant summary-level spreadsheets and similar high-level documents were often used to manage initiative activities. Introducing additional quality programs, procedures, plans, and processes would be expected to offer efficiency as well as more control over initiative activities.

APPENDIX A. LIST OF WMP MEETINGS, SME INTERVIEWS, AND ATTENDEES

Date	Subject	BVES Attendees
4/12/2023	BVES and S&L – Independent Evaluation WMP Compliance Assessment Kick-Off Meeting	Paul Marconi
5/1/2023	S&L WMP Compliance Meeting – Initial Request for Information / Documentation	Paul Marconi, Jon Pecchia, Tom Chou, Jared Hennen
5/4/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Jared Hennen
5/11/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Tom Chou, Jared Hennen
5/17/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Tom Chou, Jared Hennen
5/25/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Tom Chou, Jared Hennen
5/31/2023	BVES Asset Database Demonstration and Interview	Jon Pecchia, Jared Hennen
6/1/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Tom Chou, Jared Hennen
6/2/2023	GIS Circuit Mileage Demonstration and Interview	Jared Hennen, Eduardo Torres
6/8/2023	WMP Request for Information Status and S&L Questions	Jon Pecchia, Tom Chou, Jared Hennen
6/8/2023	Quality Control of Inspections – Clarification Interview	Tom Chou, Jared Hennen
6/13/2023	Grid Operations & Operating Protocols – Clarification Interview	Tom Chou, Jared Hennen
6/15/2023	WMP Compliance Assessment - Work Orders / Quality Records Meeting	Jon Pecchia, Tom Chou, Jared Hennen
6/15/2023	Additional Follow-Up Questions and Interview	Tom Chou, Jared Hennen
6/16/2023	Additional Follow-Up Questions and Interview	Tom Chou
6/29/2023	Additional Follow-Up Questions and Interview	Paul Marconi, Tom Chou, Jared Hennen

APPENDIX B. LIST OF BVES 2022 WMP INITIATIVES

Large Volume Quantifiable Goal/Target –- Field Verifiable

- 7.3.3.3.1 & 7.3.3.3.2: Covered Conductor Replacement Program
- 7.3.3.3.3: Covered Conductor Replacement Program – Radford
- 7.3.3.6.2: Covered Conductor Project - Radford Line
- 7.3.3.6.4: Evacuation Route Hardening Program / Distribution pole replacement and reinforcement, including with composite poles
- 7.3.3.12.2: Tree Attachment Removal Program
- 7.3.3.13: Pole Loading & Replacement Program [Primary]

Large Volume Quantifiable Goal/Target – Not Field Verifiable

- 7.3.4.1: Asset Management & Inspections - Detailed inspections of distribution electric lines and equipment / Detailed Inspection Program [Primary]Detailed Inspection Program [Primary]
- 7.3.4.4: Asset Management & Inspections - Infrared inspections of distribution electric lines and equipment / UAV Thermography ProgramUAV Thermography Program
- 7.3.4.6: Asset Management & Inspections - Intrusive pole inspections / Intrusive Pole Inspection Program
- 7.3.4.7: Asset Management & Inspections - LiDAR inspections of distribution electric lines and equipment / LiDAR Inspection Program [Primary]LiDAR Inspection Program [Primary]
- 7.3.4.9.1: Asset Management & Inspections - Third Party Ground Patrol
- 7.3.4.9.2: Asset Management & Inspections - UAV Thermography Program
- 7.3.4.11: Asset Management & Inspections - Patrol inspections of distribution electric lines and equipment / Patrol Inspection Program [Primary]Patrol Inspection Program [Primary]
- 7.3.4.13: Asset Management & Inspections - Pole loading assessment program to determine safety factor / Pole Loading & Replacement Program Pole Loading & Replacement Program
- 7.3.5.2: Vegetation Management & Inspections - Detailed inspections of vegetation around distribution electric lines and equipment / Detailed Inspection Program
- 7.3.5.7: Vegetation Management & Inspections - LiDAR inspections of vegetation around distribution electric lines and equipment / LiDAR Inspection Program
- 7.3.5.9.1 & 7.3.5.9.2: Vegetation Management & Inspections - Other discretionary inspections of vegetation around distribution electric lines and equipment / UAV & Ground Patrol
- 7.3.5.11: Vegetation Management & Inspections - Patrol inspections of vegetation around distribution electric lines and equipment / Patrol Inspection Program

- 7.3.5.20: Vegetation Management & Inspections - Vegetation Management to Achieve Clearances around Electric Lines and Equipment / Enhanced Vegetation Management Program

Small (less than 100 items) Volume Quantifiable Goal/Target

- 7.3.2.3: Situational Awareness & Forecasting - Situational Awareness Hardware Program / Fault indicators for detecting faults on electric lines and equipment
- 7.3.3.9.1: Grid Design & System Hardening - Grid Automation Program [Primary] / Installation of system automation equipment
- 7.3.4.15: Asset Management & Inspections - Substation inspections/ GO-174 Substation Inspection Program [Primary]GO-174 Substation Inspection Program [Primary] / Substation inspections
- 7.3.5.6: Vegetation Management & Inspections - Improvement of inspections / Quality Control of Inspections
- 7.3.5.13: Vegetation Management & Inspections - Quality assurance / quality control of vegetation inspections / Quality Control of Inspections
- 7.3.5.16: Vegetation Management & Inspections - Removal and remediation of trees with strike potential to electric lines and equipment / Enhanced Vegetation Management Program [Primary]
- 7.3.5.17: Vegetation Management & Inspections - Substation inspection / GO-174 Substation Inspection Program
- 7.3.9.2: Emergency Planning & Preparedness - Community Outreach, Public Awareness, and Communications Efforts / Emergency Preparedness & Response Program
- 7.3.10.1: Stakeholder Cooperation & Community Engagement - Community Outreach Program / Community engagement

Qualitative Goal/Target

- 7.3.1.1: Risk Assessment & Mapping - A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment / Ignition Probability & Wildfire Consequence Mapping (Primary)
- 7.3.1.2: Risk Assessment & Mapping - Climate-driven risk map and modelling based on various relevant weather scenarios / Ignition Probability & Wildfire Consequence Mapping
- 7.3.1.3: Risk Assessment & Mapping - Ignition probability mapping showing the probability of ignition along the electric lines and equipment / Ignition Probability & Wildfire Consequence Mapping
- 7.3.1.4: Risk Assessment & Mapping - Initiative mapping and estimation of wildfire and PSPS risk-reduction impact / Ignition Probability & Wildfire Consequence Mapping
- 7.3.1.5: Risk Assessment & Mapping - Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment / Ignition Probability & Wildfire Consequence Mapping
- 7.3.2.2.2: Situational Awareness & Forecasting - Online Diagnostic System Pilot / Continuous monitoring sensors

- 7.3.2.4: Situational Awareness & Forecasting - Weather Consultant / Forecast of a fire risk index, fire potential index, or similar
- 7.3.2.5: Situational Awareness & Forecasting - Grid Operations & Protocol / Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions
- 7.3.2.6: Situational Awareness & Forecasting - Weather Consultant [Primary] / Weather forecasting and estimating impacts on electric lines and equipment
- 7.3.3.1: Grid Design & System Hardening - Capacitor maintenance and replacement
- 7.3.3.2: Grid Design & System Hardening - Circuit breaker maintenance and installation to de-energize lines upon detecting a fault
- 7.3.3.4: Grid Design & System Hardening - Covered conductor maintenance
- 7.3.3.5: Grid Design & System Hardening - Crossarm maintenance, repair, and replacement
- 7.3.3.6.1: Grid Design & System Hardening - Pole Loading & Replacement Program / Distribution pole replacement and reinforcement, including with composite poles
- 7.3.3.9.2: Grid Design & System Hardening - Grid Automation Program // FLISR / Installation of system automation equipment
- 7.3.3.9.3: Grid Design & System Hardening - Grid Automation Program // Fuse Trip Saver / Installation of system automation equipment
- 7.3.3.9.4: Grid Design & System Hardening - Server Upgrade Project / Installation of system automation equipment
- 7.3.3.9.5: Grid Design & System Hardening - Distribution Management Center Program / Installation of system automation equipment
- 7.3.3.10: Grid Design & System Hardening - Maintenance, repair, and replacement of connectors, including hotline clamps
- 7.3.3.11.1: Grid Design & System Hardening - Energy Storage Project / Mitigation of impact on customers and other residents affected during PSPS event
- 7.3.3.11.2: Grid Design & System Hardening - BVPP Phase 4 Upgrade Project / Mitigation of impact on customers and other residents affected during PSPS event
- 7.3.3.12.1: Grid Design & System Hardening - Safety & Technical Upgrades of Substations / Other corrective action
- 7.3.3.14: Grid Design & System Hardening - Transformers maintenance and replacement
- 7.3.3.16: Grid Design & System Hardening - Undergrounding of electric lines and/or equipment
- 7.3.4.3: Asset Management & Inspections - Improvement of inspections
- 7.3.4.14: Asset Management & Inspections - Quality Control of Inspections [Primary]
- 7.3.5.1: Vegetation Management & Inspections - Additional efforts to manage community and environmental impacts / Contracted Forester Service // Environmental Impact Mitigation Activities

- 7.3.5.4: Vegetation Management & Inspections - Emergency response vegetation management due to red flag warning or other urgent conditions / Emergency Preparedness & Response Program
- 7.3.5.5: Vegetation Management & Inspections - Fuel management and reduction of “slash” from vegetation management activities / Enhanced Vegetation Management Program
- 7.3.5.14: Vegetation Management & Inspections - Recruiting and training of vegetation management personnel / Vegetation Management Program Staffing
- 7.3.5.15: Vegetation Management & Inspections - Remediation of at-risk species / Identification and remediation of “at-risk species”
- 7.3.5.18: Vegetation Management & Inspections - Substation Vegetation Management / Substation Vegetation Management Inspections & Corrections
- 7.3.5.19: Vegetation Management & Inspections - Vegetation Inventory System / GIS Data Collection & Sharing
- 7.3.5.21: Vegetation Management & Inspections - Vegetation Management Activities Post-Fire
- 7.3.6.1: Grid Operations & Operating Protocols - Automatic Recloser Operations / Grid Automation Program
- 7.3.6.2: Grid Operations & Operating Protocols - Protective Equipment and Device Settings
- 7.3.6.3: Grid Operations & Operating Protocols - Crew-Accompanying Ignition Prevention and Suppression Resources and Services / Emergency Preparedness & Response Program
- 7.3.6.4: Grid Operations & Operating Protocols - Personnel Work Procedures and Training in Conditions of Elevated Fire Risk / PSPS Program & Procedures
- 7.3.6.5: Grid Operations & Operating Protocols – Protocols for PSPS Re-Energization / PSPS Program & Procedures
- 7.3.6.6: Grid Operations & Operating Protocols – PSPS Events and Mitigation of PSPS Impacts / PSPS Program & Procedures [Primary]
- 7.3.6.7: Grid Operations & Operating Protocols – Stationed and On-Call Ignition Prevention and Suppression Resources and Services / Emergency Preparedness & Response Program
- 7.3.7.1: Data Governance - Centralized repository for data / GIS Data Collection & Sharing [Primary]
- 7.3.7.2: Data Governance - Collaborative research on utility ignition and/or wildfire
- 7.3.7.3: Data Governance - Documentation and disclosure of wildfire-related data and algorithms
- 7.3.7.4: Data Governance - Tracking and analysis of near miss data / WMP Metrics Tracking
- 7.3.8.1: Resource Allocation Methodology - Allocation methodology development and application [Primary]
- 7.3.8.2: Resource Allocation Methodology - Risk reduction scenario development and analysis / Ignition Probability & Wildfire Consequence Mapping

- 7.3.8.3: Resource Allocation Methodology - Risk spend efficiency analysis / Ignition Probability & Wildfire Consequence Mapping
- 7.3.9.1: Emergency Planning & Preparedness - Adequate and Trained Workforce / Resource Allocation Methodology
- 7.3.9.3: Emergency Planning & Preparedness - Customer Support in Emergencies / Emergency Preparedness & Response Program
- 7.3.9.4: Emergency Planning & Preparedness - Disaster and Emergency Preparedness Plan - Emergency Preparedness & Response Program [Primary]
- 7.3.9.5: Emergency Planning & Preparedness - Preparedness and Planning for Service Restoration / Emergency Preparedness & Response Program
- 7.3.9.6: Emergency Planning & Preparedness - Protocols in Place to Learn from Wildfire Events / Emergency Preparedness & Response Program
- 7.3.10.2: Stakeholder Cooperation & Community Engagement - Cooperation and best practice sharing with agencies outside CA
- 7.3.10.3: Stakeholder Cooperation & Community Engagement - Cooperation with suppression agencies
- 7.3.10.4: Stakeholder Cooperation & Community Engagement - Forest service and fuel reduction cooperation and joint roadmap

“Not Applicable” or No Goal/Target

- 7.3.2.1: Situational Awareness & Forecasting - Situational Awareness Hardware Program [Primary] / Advanced weather monitoring and weather stations
- 7.3.2.2.1: Situational Awareness & Forecasting - Situational Awareness Hardware Program / Continuous monitoring sensors
- 7.3.3.3: Grid Design & System Hardening - Covered Conductor Pilot / Covered Conductor installation
- 7.3.3.6.3: Grid Design & System Hardening - Evacuation Route Hardening Program – Pilot / Distribution pole replacement and reinforcement, including with composite poles
- 7.3.3.7: Grid Design & System Hardening - Fuse Replacement Program / Expulsion fuse replacement
- 7.3.3.8: Grid Design & System Hardening - Grid Topology Improvements [Primary] / Grid topology improvements to mitigate or reduce PSPS events
- 7.3.3.15: Grid Design & System Hardening - Transmission tower maintenance and replacement
- 7.3.3.17: Grid Design & System Hardening - Grid Topology Improvements / Updates to grid topology to minimize risk of ignition in HFTDs
- 7.3.4.2: Asset Management & Inspections - Detailed inspections of transmission electric lines and equipment

- 7.3.4.5: Asset Management & Inspections - Infrared inspections of transmission electric lines and equipment
- 7.3.4.8: Asset Management & Inspections - LiDAR inspections of transmission electric lines and equipment
- 7.3.4.10: Asset Management & Inspections - Other discretionary inspection of transmission electric lines
- 7.3.4.12: Asset Management & Inspections - Patrol inspections of transmission electric lines and equipment
- 7.3.5.3: Vegetation Management & Inspections - Detailed inspections of vegetation around transmission electric lines and equipment
- 7.3.5.8: Vegetation Management & Inspections - LiDAR inspections of vegetation around transmission electric lines and equipment
- 7.3.5.10: Vegetation Management & Inspections - Other discretionary inspection of transmission electric lines
- 7.3.5.12: Vegetation Management & Inspections - Patrol inspections of vegetation around transmission electric lines and equipment

APPENDIX C. SAMPLE SIZES BY INITIATIVE ACTIVITY

WMP Initiative #	WMP Initiative Activity	BVES 2022 Qty Target Units	BVES 2022 Annual Qty Target	BVES 2022 Qty Actual Progress (Q1-4)	Field Sample Size	Actual Samples Verified	Desktop Review Samples	Sample percent
7.3.2.3	Situational Awareness Hardware Program	Number of Fault Indicators	50	99	0	81	--	82%
7.3.3.3.1 & 7.3.3.3.2	Covered Conductor Replacement Program	Circuit Miles Hardened	12.9	12.96	37.2% of total circuit miles	100% of total circuit miles	--	100%
7.3.3.6.4	Evacuation Route Hardening Program	Poles Hardened	412	597	0	204	--	34%
7.3.3.9.1	Grid Automation Program [Primary]	Number of Substations connected to SCADA	2	3	0	3	--	100%
7.3.3.12.2	Tree Attachment Removal Program	Tree Attachment Removal	80	83	0	68	--	82%
7.3.3.13	Pole Loading & Replacement Program [Primary]	Number of Poles Replaced	165	197	0	118	--	60%
7.3.4.1	Detailed Inspection Program [Primary]	Circuit Miles Inspected	29	32.41	--	--	SME database demo & photos	N/A
7.3.4.4	UAV Thermography Program	Circuit Miles Inspected	211	211	--	--	SME database demo & photos	N/A

WMP Initiative #	WMP Initiative Activity	BVES 2022 Qty Target Units	BVES 2022 Annual Qty Target	BVES 2022 Qty Actual Progress (Q1-4)	Field Sample Size	Actual Samples Verified	Desktop Review Samples	Sample percent
7.3.4.6	Intrusive Pole Inspection Program	Number of Poles Assessed	850	853	--	--	SME database demo & photos	N/A
7.3.4.7	LiDAR Inspection Program [Primary]	Circuit Miles Surveyed	211	211	--	--	SME database demo & photos	N/A
7.3.4.9.1	Third Party Ground Patrol	Circuit Miles Inspected	211	211	--	--	20 Records	N/A
7.3.4.9.2	UAV Thermography Program	Circuit Miles Inspected	211	211	--	--	SME database demo & photos	N/A
7.3.4.11	Patrol Inspection Program [Primary]	Circuit Miles Inspected	211	211	--	--	18 Records	N/A
7.3.4.13	Pole Loading & Replacement Program	Number of Poles Assessed	225	381	--	--	27 WOs	N/A
7.3.4.15	GO-174 Substation Inspection Program [Primary]	Number of Monthly Substations Inspected	144	152	--	--	152	100%
7.3.5.2	Detailed Inspection Program	Circuit Miles Inspected	29	32.41	--	--	SME database demo & photos	N/A
7.3.5.6	Quality Control of Inspections	Number of Vegetation Management Audits	4	4	--	--	4	100%

WMP Initiative #	WMP Initiative Activity	BVES 2022 Qty Target Units	BVES 2022 Annual Qty Target	BVES 2022 Qty Actual Progress (Q1-4)	Field Sample Size	Actual Samples Verified	Desktop Review Samples	Sample percent
7.3.5.7	LiDAR Inspection Program	Circuit Miles Surveyed	211	211	--	--	SME database demo & photos	N/A
7.3.5.9.1 & 7.3.5.9.2	UAV & Ground Patrol	Circuit Miles Surveyed	211	211	--	--	SME database demo & photos	N/A
7.3.5.11	Patrol Inspection Program	Circuit Miles Surveyed	211	255.16	--	--	SME database demo & photos	N/A
7.3.5.13	Quality Control of Inspections	Number of Quality Control Reviews Conducted	72	132	--	--	132	100%
7.3.5.16	Enhanced Vegetation Management Program [Primary]	Hazard Trees Removed/Remediated	88	147	--	--	147	100%
7.3.5.17	GO-174 Substation Inspection Program	Number of Substations Inspected	144	152	--	--	152	100%
7.3.5.20	Enhanced Vegetation Management Program	Circuit Miles Cleared	72	86.84	--	--	SME database demo & photos	N/A
7.3.9.2	Community Outreach Program [Primary]	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	--	--	34	5%

WMP Initiative #	WMP Initiative Activity	BVES 2022 Qty Target Units	BVES 2022 Annual Qty Target	BVES 2022 Qty Actual Progress (Q1-4)	Field Sample Size	Actual Samples Verified	Desktop Review Samples	Sample percent
7.3.10.1	Community Outreach Program	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	--	--	34	5%

APPENDIX D. S&L RFI AND CLARIFICATIONS

Bear Valley Electric Service - Wildfire Mitigation Plan - Compliance Review
Sargent & Lundy Request for Information
File Update: June 16, 2023

Update No.	Notes and Comments	Status
1	Data Request first submitted 4/25/2023	Closed
2	Updated Data request 5/9/2023 on the RFI Matrix	Closed
3	Updated Data request 5/16/2023	Closed
4	Updated requests for clarification (numbers 1-4) and detailed quality records 5/18/2023	Closed
5	Updated request for data and clarification: 7.3.5 Veg Mgmt - 2022 Substation Inspections in xlsx format	Closed
6	Additional requests for clarification (numbers 7-9) submitted 5/25/2023	Closed
7	Additional requests for clarification (numbers 10-13) submitted 5/30/2023	Closed
8	Additional requests for clarification (numbers 14-17) submitted 5/31/2023	Closed
9	Additional requests for clarification (numbers 18-19) submitted 6/5/2023	Closed
10	Additional request for clarification (number 20) submitted 6/7/2023	Closed
11	Follow-up comment for request for clarification (number 18) submitted 6/8/2023	Closed
12	Additional request for clarification (number 21) submitted 6/14/2023	Closed
13	Additional requests for clarification (number 22-26) and specific Data Requrest (number 7) submitted 6/15/2023	Closed

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1	7.3.1.1	Risk Assessment & Mapping	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	Ignition Probability & Wildfire Consequence Mapping [Primary]	Jon	Qualitative	29.98	30.47	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
2	7.3.1.2	Risk Assessment & Mapping	Climate-driven risk map and modelling based on various relevant weather scenarios	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	8.16	8.62	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
3	7.3.1.3	Risk Assessment & Mapping	Ignition probability mapping showing the probability of ignition along the electric lines and equipment	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	28.17	28.56	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
4	7.3.1.4	Risk Assessment & Mapping	Initiative mapping and estimation of wildfire and PSPS risk-reduction impact	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	27.49	27.84	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
5	7.3.1.5	Risk Assessment & Mapping	Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	27.72	28.08	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
6	7.3.2.1	Situational Awareness & Forecasting	Advanced weather monitoring and weather stations	Situational Awareness Hardware Program [Primary]	Tom	NA	3.72	3.45	Number of Weather Stations Installed	0	0	0	0	NA	NA	NA	NA	NA
7	7.3.2.2.1	Situational Awareness & Forecasting	Continuous monitoring sensors	Situational Awareness Hardware Program	Tom	NA	NA	NA	Number of HD Cameras Installed	NA	NA	NA	NA	NA	NA	NA	NA	NA
8	7.3.2.2.2	Situational Awareness & Forecasting	Continuous monitoring sensors	Online Diagnostic System Pilot	Tom	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9	7.3.2.3	Situational Awareness & Forecasting	Fault indicators for detecting faults on electric lines and equipment	Situational Awareness Hardware Program	Tom	Small Volume	263.26	244.03	Number of Fault Indicators	50	99	NA	NA	NA	NA	Fault Indicator 2022.ZIP	NA	NA
10	7.3.2.4	Situational Awareness & Forecasting	Forecast of a fire risk index, fire potential index, or similar	Weather Consultant	Jon	Qualitative	13.00	13.60	NA	NA	NA	NA	NA	C#3000-001-Weather Consulting	NA	Weather_Wind Reports.zip	NA	NA
11	7.3.2.5	Situational Awareness & Forecasting	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Grid Operations & Protocol	Jeff	Qualitative	11.52	0.00	NA	NA	NA	NA	NA	BVES INC PSPS Procedures Rev1	NA	NA	NA	NA
12	7.3.2.6	Situational Awareness & Forecasting	Weather forecasting and estimating impacts on electric lines and equipment	Weather Consultant [Primary]	Jon	Qualitative	13.00	13.60	NA	NA	NA	NA	NA	C#3000-001-Weather Consulting	NA	Weather_Wind Reports.zip	NA	NA
13	7.3.3.1	Grid Design & System Hardening	Capacitor maintenance and replacement program	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	8.99	9.27	NA	NA	NA	NA	NA	BVES INC Capacitor Operation Maintenance Plan Rev0	NA	NA	NA	BVES INC Capacitor Operation Maintenance Plan Rev0
14	7.3.3.2	Grid Design & System Hardening	Circuit breaker maintenance and installation to de-energize lines upon detecting a fault	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	60.64	62.57	NA	NA	NA	NA	NA	C#3049-004 Substation Testing and Maintenance	NA	2022 Substation Test Report	NA	NA
15	7.3.3.3.1 & 7.3.3.3.2	Grid Design & System Hardening	Covered conductor installation	Covered Conductor Replacement Program	Tom	L. Volume Field	6570.39	9538.93	Circuit Miles Hardened	12.9	12.96	NA	NA	NA	NA	2022 covered conductor.zip Updated: KMZ file 2022 Covered Conductor Rev 1.KMZ	NA	NA
16	7.3.3.3.3	Grid Design & System Hardening	Covered conductor installation	Covered Conductor Replacement Program - Radford	Tom	L. Volume Field	1235.99	109.03	Circuit Miles Hardened	2.7	0	NA	NA	NA	NA	USFS-Radford Timeline	NA	NA
17	7.3.3.3	Grid Design & System Hardening	Covered conductor installation	Covered Conductor Pilot	Tom	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	7.3.3.4	Grid Design & System Hardening	Covered conductor maintenance	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	30.14	34.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19	7.3.3.5	Grid Design & System Hardening	Crossarm maintenance, repair, and replacement	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	52.74	59.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20	7.3.3.6.1	Grid Design & System Hardening	Distribution pole replacement and reinforcement, including with composite poles	Pole Loading & Replacement Program	Tom	Qualitative	400.00	1357.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	7.3.3.6.2	Grid Design & System Hardening	Distribution pole replacement and reinforcement, including with composite poles	Covered Conductor Project - Radford Line	Tom	L. Volume Field	4382.14	386.56	NA	NA	NA	NA	NA	NA	NA	USFS-Radford Timeline	NA	NA
22	7.3.3.6.3	Grid Design & System Hardening	Distribution pole replacement and reinforcement, including with composite poles	Evacuation Route Hardening Program - Pilot	Tom	NA	NA	NA	Poles Hardened	0	0	0	0	NA	NA	NA	NA	NA
23	7.3.3.6.4	Grid Design & System Hardening	Distribution pole replacement and reinforcement, including with composite poles	Evacuation Route Hardening Program	Tom	L. Volume Field	576.80	389.79	Poles Hardened	412	597	NA	NA			Fire Wrap Poles 2022.zip		
24	7.3.3.7	Grid Design & System Hardening	Expulsion fuse replacement	Fuse Replacement Program	Tom	NA	NA	NA	Number of Fuses Replaced	0	0	NA	NA	NA	NA	NA	NA	NA
25	7.3.3.8	Grid Design & System Hardening	Grid topology improvements to mitigate or reduce PSPS events	Grid Topology Improvements [Primary]	Tom	NA	NA	NA	# of Sectional Devices Installed Divided by # of Sectional Devices Needed	0	0	NA	NA	NA	NA	NA	NA	NA
26	7.3.3.9.1	Grid Design & System Hardening	Installation of system automation equipment	Grid Automation Program [Primary]	Tom	Small Volume	210.00	679.58	Number of Subsations connected to SCADA	**2**	3	NA	NA			2022 Substation SCADA		

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27	7.3.3.9.2	Grid Design & System Hardening	Installation of system automation equipment	Grid Automation Program // FLISR	Tom	Qualitative	123.61	167.19	NA	NA	NA	System Instillation and Project Completion	NA	NA	NA	NA	NA	NA
28	7.3.3.9.3	Grid Design & System Hardening	Installation of system automation equipment	Grid Automation Program // Fuse Trip Saver	Tom	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29	7.3.3.9.4	Grid Design & System Hardening	Installation of system automation equipment	Server Upgrade Project	Tom	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	7.3.3.9.5	Grid Design & System Hardening	Installation of system automation equipment	Distribution Management Center Program	Tom	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31	7.3.3.10	Grid Design & System Hardening	Maintenance, repair, and replacement of connectors, including hotline clamps	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	12.73	13.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
32	7.3.3.11.1	Grid Design & System Hardening	Mitigation of impact on customers and other residents affected during PSPS event	Energy Storage Project	Tom	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
33	7.3.3.11.2	Grid Design & System Hardening	Mitigation of impact on customers and other residents affected during PSPS event	BVPP Phase 4 Upgrade Project	Tom	Qualitative	NA	NA	NA	NA	NA	Project Milesstones for Propane Engine Upgrades	NA	NA	NA	NA	NA	NA
34	7.3.3.12.1	Grid Design & System Hardening	Other corrective action	Safety & Technical Upgrades of Substations (no real spend for Pineknot - just Palomino)	Tom	Qualitative	97.62	101.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	7.3.3.12.2	Grid Design & System Hardening	Other corrective action	Tree Attachment Removal Program	Tom	L. Volume Field	661.81	709.11	Tree Attachment Removal	80	83	NA	NA			TARP 2022.zip		
36	7.3.3.13	Grid Design & System Hardening	Pole loading infrastructure hardening and replacement program based on pole loading assessment program	Pole Loading & Replacement Program [Primary]	Tom	L. Volume Field	1216.16	1011.84	Number of Poles Replaced	165	197	NA	NA	NA	NA	2022 pole replacement.zip	NA	NA
37	7.3.3.14	Grid Design & System Hardening	Transformers maintenance and replacement	Program covered under ongoing maintenance of subtransmission and distribution facilities. There is not a separate WMP initiative.	Tom	Qualitative	13.32	15.30	NA	NA	NA	NA	NA	NA	NA	2022 Substation Test Report.zip	NA	NA
38	7.3.3.15	Grid Design & System Hardening	Transmission tower maintenance and replacement	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
39	7.3.3.16	Grid Design & System Hardening	Undergrounding of electric lines and/or equipment	BVES does not plan to revisit this program following the cancelation determination in 2020	Tom	Qualitative	75.00	283.58	NA	NA	NA	NA	NA	NA	NA	Undergrounding of electric lines andor equipment.zip	NA	NA
40	7.3.3.17	Grid Design & System Hardening	Updates to grid topology to minimize risk of ignition in HFTDs	Grid Topology Improvements	Tom	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
41	7.3.4.1	Asset Management & Inspections	Detailed inspections of distribution electric lines and equipment	Detailed Inspection Program [Primary]	Jared	L. Volume No Field	8.42	16.43	Circuit Miles Inspected	29	32.41	NA	NA	BVES GO 165 Compliance Plan	NA	2022 Inspection Record	NA	NA
42	7.3.4.2	Asset Management & Inspections	Detailed inspections of transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
43	7.3.4.3	Asset Management & Inspections	Improvement of inspections	BVES does not have a unique WMP initiative for this activity at this time.	Jared	Qualitative	150.39	172.23	NA	NA	NA	NA	NA	BVES INC Quality Management Plan Rev0	NA	NA	NA	NA
44	7.3.4.4	Asset Management & Inspections	Infrared inspections of distribution electric lines and equipment	UAV Thermography Program	Jared	L. Volume No Field	59.40	54.19	Circuit Miles Inspected	211	211	NA	NA	C#3152-000 UAV Inspection	NA	2022 BVES 3rd Party and UAV Inspection	NA	NA
45	7.3.4.5	Asset Management & Inspections	Infrared inspections of transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
46	7.3.4.6	Asset Management & Inspections	Intrusive pole inspections	Intrusive Pole Inspection Program	Jared	L. Volume No Field	33.00	18.82	Number of Poles Assessed	850	853	NA	NA	C#3157-000 Instrusive Poles Inspection	NA	Intrusive Pole 2022.zip	NA	NA
47	7.3.4.7	Asset Management & Inspections	LiDAR inspections of distribution electric lines and equipment	LiDAR Inspection Program [Primary]	Jared	L. Volume No Field	65.00	62.03	Circuit Miles Surveyed	211	211	NA	NA	C#3079-001 LiDAR Inspectopm	NA	2022 LiDAR inspection	NA	NA
48	7.3.4.8	Asset Management & Inspections	LiDAR inspections of transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	7.3.4.9.1	Asset Management & Inspections	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Third Party Ground Patrol	Jared	L. Volume No Field	40.00	23.66	Circuit Miles Inspected	211	211	NA	NA	C#3081-001 Ground Patrol	NA	2022 BVES 3rd Party and UAV Inspection	NA	NA
50	7.3.4.9.2	Asset Management & Inspections	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	UAV Thermography Program	Jared	L. Volume No Field	59.40	54.19	Circuit Miles Inspected	211	211	NA	NA	C#3152-000 UAV Inspection	NA	2022 BVES 3rd Party and UAV Inspection	NA	NA
51	7.3.4.10	Asset Management & Inspections	Other discretionary inspection of transmission electric lines and	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
52	7.3.4.11	Asset Management & Inspections	Patrol inspections of distribution electric lines and equipment	Patrol Inspection Program [Primary]	Jared	L. Volume No Field	19.65	38.33	Circuit Miles Inspected	211	211	NA	NA	BVES GO 165 Compliance Plan	NA	2022 Patrol Inspections	NA	NA
53	7.3.4.12	Asset Management & Inspections	Patrol inspections of transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
54	7.3.4.13	Asset Management & Inspections	Pole loading assessment program to determine safety factor	Pole Loading & Replacement Program	Tom	L. Volume No Field	64.01	53.25	Number of Poles Assessed	225	381	NA	NA			Poles Assessed 2022.zip		

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55	7.3.4.14	Asset Management & Inspections	Quality assurance / quality control of inspections	Quality Control of Inspections [Primary]	Jared	Qualitative	20.39	21.55	NA	NA	NA	NA	NA	BVES INC Quality Management Plan Rev0	NA	NA	NA	NA
56	7.3.4.15	Asset Management & Inspections	Substation inspections	GO-174 Substation Inspection Program [Primary]	Jared	Small Volume	228.84	288.00	Number of Monthly Substations Inspected	144	144	NA	NA	OpsPlanningPolicyProcedures-15 & OpsPlanningPolicyProcedures-15AttachmentA.Zip	NA	2022 Substation Inspections Folder & Pineknot Sub.PDF	NA	NA
57	7.3.5.1	Vegetation Management & Inspections	Additional efforts to manage community and environmental impacts	Contracted Forester Service // Environmental Impact Mitigation Activities	Jared	Qualitative	38.41	48.12	NA	NA	NA	Information exchange and coordination with land management agencies	NA	C#3090-003 Forester Contract		CBBL Manager Brief 2022-11 R0		
58	7.3.5.2	Vegetation Management & Inspections	Detailed inspections of vegetation around distribution electric lines and equipment	Detailed Inspection Program	Jared	L. Volume No Field	8.42	16.43	Circuit Miles Inspected	29	32.41	NA	NA	BVES GO 165 Compliance Plan		2022 Substation Inspections Folder & Pineknot Sub.PDF		
59	7.3.5.3	Vegetation Management & Inspections	Detailed inspections of vegetation around transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	Jared	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	7.3.5.4	Vegetation Management & Inspections	Emergency response vegetation management due to red flag warning or other urgent conditions	Emergency Preparedness & Response Program	Jared	Qualitative	97.25	131.18	NA	NA	NA	NA	NA	C#3090-003 Forester Contract & C#3095-002 Vegetation Management	NA	NA	NA	NA
61	7.3.5.5	Vegetation Management & Inspections	Fuel management and reduction of "slash" from vegetation management activities	Enhanced Vegetation Management Program	Jared	Qualitative	115.00	153.90	NA	NA	NA	Contractor removes veg waste as part of contract on daily basis	Contractor meets requirements	C#3095-002 Vegetation Management	NA	NA	NA	NA
62	7.3.5.6	Vegetation Management & Inspections	Improvement of inspections	Quality Control of Inspections	Jared	Small Volume	171.56	203.65	Number of Vegetation Management Audits	4	4	NA	NA	BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1	NA	VM Audit	NA	2022 Vegetation Management Training
63	7.3.5.7	Vegetation Management & Inspections	LiDAR inspections of vegetation around distribution electric lines and equipment	LiDAR Inspection Program	Jared	L. Volume No Field	65.00	62.03	Circuit Miles Surveyed	211	211	NA	NA	C#3079-001 LiDAR Inspectopm	NA	2022 LiDAR inspection	NA	NA
64	7.3.5.8	Vegetation Management & Inspections	LiDAR inspections of vegetation around transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	Jared	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
65	7.3.5.9.1 & 7.3.5.9.2	Vegetation Management & Inspections	Other discretionary inspections of vegetation around distribution electric lines and equipment	UAV & Ground Patrol	Jared	L. Volume No Field	40.00	23.66	Circuit Miles Surveyed	211	211	NA	NA	C#3152-000 UAV Inspection	NA	2022 BVES 3rd Party and UAV Inspection	NA	NA
66	7.3.5.10	Vegetation Management & Inspections	discretionary inspection of transmission electric line and	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	Jared	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
67	7.3.5.11	Vegetation Management & Inspections	Patrol inspections of vegetation around distribution electric lines and equipment	Patrol Inspection Program	Jared	L. Volume No Field	19.65	38.33	Circuit Miles Surveyed	211	255.16	NA	NA	BVES GO 165 Compliance Plan	NA	2022 Patrol Inspections	NA	NA
68	7.3.5.12	Vegetation Management & Inspections	Patrol inspections of vegetation around transmission electric lines and equipment	BVES does not have any transmission level assets and maintains a subtransmission line (34.5kV) that is treated as a higher voltage asset.	Jared	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
69	7.3.5.13	Vegetation Management & Inspections	Quality assurance / quality control of vegetation inspections	Quality Control of Inspections	Jared	Small Volume	60.24	76.22	Number of Quality Control Reviews Conducted	72	132	NA	NA	BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1	NA	2022 Vegetation QA.QC	NA	BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures Rev1
70	7.3.5.14	Vegetation Management & Inspections	Recruiting and training of vegetation management personnel	Vegetation Management Program Staffing	Jared	Qualitative	31.61	40.94	NA	NA	NA	No gaps in staffing for veg management	Met target	Management/ Supervisory effort.	NA	NA	NA	NA
71	7.3.5.15	Vegetation Management & Inspections	Remediation of at-risk species	Identification and remediation of "at-risk species"	Jared	Qualitative	125.50	170.03	NA	NA	NA	NA	NA	C#3090-003 Forester Contract	NA	2022 Completed Tree Work	NA	NA
72	7.3.5.16	Vegetation Management & Inspections	Removal and remediation of trees with strike potential to electric lines and equipment	Enhanced Vegetation Management Program [Primary]	Jared	Small Volume	137.00	185.42	Hazard Trees Removed/Remediated	88	147	NA	NA	C#3095-002 Vegetation Management	NA	2022 Completed Tree Work	NA	NA
73	7.3.5.17	Vegetation Management & Inspections	Substation inspection	GO-174 Substation Inspection Program	Jared	Small Volume	5.20	5.30	Number of Substations Inspected	144	144	NA	NA	OpsPlanningPolicyProcedures-15 & OpsPlanningPolicyProcedures-15AttachmentA.Zip	NA	2022 Substation Inspections Folder & Pineknot Sub.PDF	NA	NA
74	7.3.5.18	Vegetation Management & Inspections	Substation vegetation management	Substation Vegetation Management Inspections & Corrections	Jared	Qualitative	17.86	19.88	NA	NA	NA	Contractor assess and removes vegetation per substation on an annual basis	inspected substations cleared of vegetation			2022 Substation Weed Abatement Invoices	NA	NA
75	7.3.5.19	Vegetation Management & Inspections	Vegetation inventory system	GIS Data Collection & Sharing	Jared	Qualitative	171.50	231.59	NA	NA	NA	System updates as necessary	Trimmed Trees were entered into GIS	NA	NA	2022 OEIS Spatial Data.zip	NA	NA

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76	7.3.5.20	Vegetation Management & Inspections	Vegetation management to achieve clearances around electric lines and equipment	Enhanced Vegetation Management Program	Jared	L. Volume No Field	1725.00	2308.56	Circuit Miles Cleared	72	86.84	86.84	NA	C#3095-002 Vegetation Management		2022 Completed Tree Work		
77	7.3.5.21	Vegetation Management & Inspections	Vegetation management activities post-fire	Vegetation Management Activities Post-Fire	Jared	Qualitative	NA	NA	NA	NA	NA	Outreach and best practice evaluation	NA	NA	NA	NA	NA	NA
78	7.3.6.1	Grid Operations & Operating Protocols	Automatic recloser operations	Grid Automation Program	Tom	Qualitative	20.39	21.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
79	7.3.6.2	Grid Operations & Operating Protocols	Protective equipment and device settings		Paul	Qualitative	12.46	13.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
80	7.3.6.3	Grid Operations & Operating Protocols	Crew-accompanying ignition prevention and suppression resources and services	Emergency Preparedness & Response Program	Paul	Qualitative	NA	NA	NA	NA	NA	Ongoing compliance with plan	NA	BVES INC PSPS Procedures Rev1	NA	NA	NA	NA
81	7.3.6.4	Grid Operations & Operating Protocols	Personnel work procedures and training in conditions of elevated fire risk	PSPS Program & Procedures	Paul	Qualitative	7.93	8.38	NA	NA	NA	Ongoing compliance with program and procedures	NA		NA	NA	NA	NA
82	7.3.6.5	Grid Operations & Operating Protocols	Protocols for PSPS re-energization	PSPS Program & Procedures	Paul	Qualitative	28.16	10.13	NA	NA	NA	Ongoing compliance with program and procedures	NA	BVES INC PSPS Procedures Rev1 & BVERS INC Emergency And Disaster Response Plan Rev2	NA	NA		NA
83	7.3.6.6	Grid Operations & Operating Protocols	PSPS events and mitigation of PSPS impacts	PSPS Program & Procedures [Primary]	Paul	Qualitative	7.79	8.24	NA	NA	NA	Ongoing compliance with program and procedures	NA	BVES INC PSPS Procedures Rev1	NA	NA	NA	NA
84	7.3.6.7	Grid Operations & Operating Protocols	Stationed and on-call ignition prevention and suppression resources and services	Emergency Preparedness & Response Program	Paul	Qualitative												
85	7.3.7.1	Data Governance	Centralized repository for data	GIS Data Collection & Sharing [Primary]	Tom	Qualitative	101.28	123.80	NA	NA	NA	Continued development and storage of GIS Data	Continued refinement for GIS resources	NA	NA	2022 OEIS Spatial Data.zip	NA	NA
86	7.3.7.2	Data Governance	Collaborative research on utility ignition and/or wildfire	BVES does not have a unique WMP initiative for this activity at this time. BVES is open to collaborative research on utility ignition and/or wildfire.	Jon	Qualitative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
87	7.3.7.3	Data Governance	Documentation and disclosure of wildfire-related data and algorithms	BVES does not have a unique WMP initiative for this activity at this time. This is captured under normal business operations.	Jon	Qualitative	8.38	8.86	NA	NA	NA	Risk Model Working Group Information Exchange	NA	NA	NA	NA	NA	NA
88	7.3.7.4	Data Governance	Tracking and analysis of near miss data	WMP Metrics Tracking	Jared	Qualitative	7.25	7.66	NA	NA	NA	Program in place and continued compliance with program	Aligned recording mechanism to track near miss data with WSD/OEIS template	NA	NA	2022 Outage Log	NA	NA
89	7.3.8.1	Resource Allocation Methodology	Allocation methodology development and application	Resource Allocation Methodology [Primary]	Jon	Qualitative	7.93	8.38	NA	NA	NA	Program in place and continued compliance with program	NA	NA	NA	NA	NA	NA
90	7.3.8.2	Resource Allocation Methodology	Risk reduction scenario development and analysis	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	29.76	30.23	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
91	7.3.8.3	Resource Allocation Methodology	Risk spend efficiency analysis	Ignition Probability & Wildfire Consequence Mapping	Jon	Qualitative	29.76	30.23	NA	NA	NA	NA	NA	BVES - Task Order - Ignition Probability Wildfire Consequence Mapping & C#3234-000 Technosylva	NA	2021-12-15 Reax BVES fire risk modeling Rev 0	BVES Risk_Fire Safety Docs.zip	NA
92	7.3.9.1	Emergency Planning & Preparedness	Adequate and trained workforce for service restoration	Resource Allocation Methodology	Paul	Qualitative	8.06	8.50	NA	NA	NA	BVES staffing contract and mutual aid adequate for service restoration	Adequate	MUTUAL ASSISTANCE AGREEMENT (Electric and Natural Gas) Among Members of the Calfornia Utilities Emergency Association	NA	NA	NA	NA
93	7.3.9.2	Emergency Planning & Preparedness	Community outreach, public awareness, and communications efforts	Community Outreach Program [Primary]	Sean	Small Volume	81.58	101.32	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	NA	NA	NA	NA	PSPS_Community Outreach	NA	PSPS_Community Outreach
94	7.3.9.3	Emergency Planning & Preparedness	Customer support in emergencies	Emergency Preparedness & Response Program	Sean	Qualitative	61.98	49.98	Number of Emergencies	0	0	NA	NA	BVERS INC Emergency And Disaster Response Plan Rev2	NA	NA	NA	PSPS_Community Outreach
95	7.3.9.4	Emergency Planning & Preparedness	Disaster and emergency preparedness plan	Emergency Preparedness & Response Program [Primary]	Paul	Qualitative	7.30	7.71	Number of Emergencies	0	0	NA	NA	BVERS INC Emergency And Disaster Response Plan Rev2	NA	NA	NA	PSPS_Community Outreach
96	7.3.9.5	Emergency Planning & Preparedness	Preparedness and planning for service restoration	Emergency Preparedness & Response Program	Sean	Qualitative	6.98	7.37	Number of Emergencies	0	0	NA	NA	BVERS INC Emergency And Disaster Response Plan Rev2 & BVES INC PSPS Procedures Rev1	NA	NA	NA	NA
97	7.3.9.6	Emergency Planning & Preparedness	Protocols in place to learn from wildfire events	Emergency Preparedness & Response Program	Paul	Qualitative	6.89	7.28	Number of Emergencies	0	0	NA	NA	BVES INC PSPS Procedures Rev1		PSPS_Community Outreach		PSPS_Community Outreach

Sargent Lundy Request For Information
BVES Wildfire Mitigation Plan Compliance Review

						Funding Review		Quantitative and Qualitative Summary					Examples - Supporting Evidence To Be Determined and Furnished by BVES				
No.	Tgt#	Category / Subject / Program	WMP Program Target / Intitiative	UtilityInitiativeName	BVES Contact	Approach	2022 Budget ($000)	2022 Actual Spend ($000)	Quant Target Units	Quant Target	Quant Actual	Qual Target	Qual Actual	Plan, Procedure and/or Standard	List of Projects and/or Assets and Status	Example Reports or Designs[1]	Review of Initiative Tool	Information on Training Plans and Records
98	7.3.10.1	Stakeholder Cooperation & Community Engagement	Community engagement	Community Outreach Program	Sean	Small Volume	30.74	26.49	Number of Engagements (Radio, Newspaper, Online, Mail)	360	712	NA	NA	NA	NA	PSPS_Community Outreach	NA	PSPS_Community Outreach
99	7.3.10.2	Stakeholder Cooperation & Community Engagement	Cooperation and best practice sharing with agencies outside CA	BVES does not have a unique WMP initiative for this activity at this time. BVES is actively engaged in reviewing and learning from T&D industry best practices and new techniques and technologies	Paul	Qualitative	17.22	18.20	NA	NA	NA	NA	NA	Management/ Supervisory effort.	NA	NA	NA	Management/ Supervisory effort.
100	7.3.10.3	Stakeholder Cooperation & Community Engagement	Cooperation with suppression agencies	BVES does not have a unique WMP initiative for this activity at this time. This is captured under normal business operations.	Paul	Qualitative	7.25	7.66	NA	NA	NA	NA	NA	Management/ Supervisory effort.	NA	NA	NA	Management/ Supervisory effort.
101	7.3.10.4	Stakeholder Cooperation & Community Engagement	Forest service and fuel reduction cooperation and joint roadmap	BVES does not have a unique WMP initiative for this activity at this time.	Jared	Qualitative	13.65	20.96	NA	NA	NA	NA	NA	Management/ Supervisory effort & C#3090-003 Forester Contract	NA	NA	NA	Management/ Supervisory effort.

Bear Valley Electric Service - Wildfire Mitigation Plan - Compliance Review
Sargent & Lundy Request for Information
Update: June 16, 2023

#	Subject	Clarification/Request	Status	Date Requested	Date Due	Date Closed	BVES Comments	S&L Follow-Up Comments (As Needed)	BVES Follow-Up Comments
1	7.3.9.2 & 7.3.10.1 Community Outreach Program	If possible, please provide an audio clip or script of the KBHR radio communcations. Are these radio scripts standard or are there several versions?	Closed	5/18/2023	5/23/2023	5/25/2023	Please see attached "Examples of advertisements.Zip"		
2	7.3.9.2 & 7.3.10.1 Community Outreach Program	Please provide examples (e.g., newspaper clippings and webpage links) of the Big Bear Grizzly communcations.	Closed	5/18/2023	5/23/2023	5/25/2023	Please see attached "Examples of advertisements.Zip"		
3	7.3.4.15 Asset Management & Inspections - Substation inspections	Please clarify: Several substations were missing an inspection or two, what happened those months? Bear Mountain Sub: December Lake Sub: August, September Village Sub: August	Closed	5/18/2023	5/23/2023	5/19/2023	Bear Mountain: no access due to snow Lake: Could not find the Inspection. Village: substation testing in August		
4	7.3.4.15 Asset Management & Inspections - Substation inspections	Please clarify: When issues are identified during the substation inspection, how is this tracked to resolution? Examples: Lake Sub listed a missing fire extinguisher in July, October, and December. Palomino Sub: November "Both drive through gates are damaged" Maple Sub: August, "Water Inside Meter Cabinet"	Closed	5/18/2023	5/23/2023	5/19/2023	Lake: Fire Ext. is re-located to the cabinet Palomino: Gate damage due to storm, sub was secure, permanent repairs complete Maple: water removed		
5	7.3.5 Veg Mgmt - 2022 Substation Inspections	If available, please provide the traceability list for the 2022 Substation Inspection Reports in a spreadsheet (preferably .xlsx format). Please clarify if there are any other tracebility documents used in the substation inspections besides the provided PDF files.	Closed	5/19/2023	5/24/2023	5/25/2023	BVES does not have it in a spreadsheet format. in 2023, we are working moving towards using our inspection software program.		
6	7.3.4.15 Asset Management & Inspections - Substation inspections	Missing 2022 Pineknot Substation Inspections	Closed	5/19/2023	5/19/2023	5/19/2023	Please see attached"Pineknot Sub.PDF" for 2022 Pineknot Substation inspection		
7	Vegetation Management: 7.3.5.2, 7.3.5.7, 7.3.5.9.1 & 7.3.5.9.2, 7.3.5.11, 7.3.5.20	The Circuit Miles Surveyed/Cleared for the following provided inspection reports could not be verified: **-Detailed inspections of vegetation around distribution electric lines and equipment 7.3.5.2** **-LiDAR inspections of vegetation around distribution electric lines and equipment 7.3.5.7** **-Other discretionary inspections of vegetation around distribution electric lines and equipment 7.3.5.9.1 & 7.3.5.9.2** **-Patrol inspections of vegetation around distribution electric lines and equipment 7.3.5.11** **-Vegetation management to achieve clearances around electric lines and equipment 7.3.5.20** The miles agreed upon in the contract/proposal are clear; however, only latitudes and longitudes are shown in the provided inspection data. Please provide any documentation that can help verify the miles surveyed/cleaed for these initiatives. It may be useful to schedule a meeting with the relevant BVES responsible party (Jared Hennen) to help verify.	Closed	5/25/2023	5/31/2023	5/31/2023	-Invoices and contracts were provided for the UAV, LiDAR, and party ground patrol. -Internal records were provided for both the detailed and patrol inspections. -7.3.5.20 milage is calculated from the quartely reports trim map and overlayed on the GIS database to calculate the milage.		
8	Vegetation Management: 7.3.5.6	Based on the provided documentation, it appears that there were four audits for Vegetation Management in 2022. However, there appears to only be one audit record submitted (VM audit 22.docx.pdf). Are the quarterly updates considered audits to BVES? Please clarify.	Closed	5/25/2023	5/31/2023	5/31/2023	The quarterly updates are considered part of the audits that are provided for the vegetation management program.		
9	Financial Review	Please provide explanation and any supporting documentation for the cause of the over/underruns that are listed as "Within 20%" in Column N of *BVES_2022 ARC 20230331_S&L Requests 20230524.xlsx* .	Closed	5/25/2023	5/31/2023	5/31/2023			
10	7.3.4.4 - Improvement of inspections	Per the WMP, "BVES maintains routine training and assessment of electrical inspection activities. BVES also applies annual lessons learned or identified improvements and tracks developing inspection practices in the industry." Please clarify the training that occurred in 2022. Were there any lessons learned or improvements identified?	Closed	5/30/2023	6/2/2023	5/31/2023	BVES implemented iRestore inspection software to centralize BVES inspection programs database.		
11	7.3.13 Pole Replacement	Two of the file names don't match poles. Please confirm: 11454BV 51923.pdf is for Pole 11451BV and 10678BV WO 60400097.pdf is for 10978BV.	Closed	5/30/2023	6/2/2023	5/31/2023	Correct the file names "11454BV_51923.PDF" is for Pole # 11451BV and "10678BV WO 60400097.pdf" is for 10978BV. Both file names was name incorrected.		
12	7.3.4.4 - Improvement of inspections	The WMP states, "Current plans for next year include procuring and implementing iRestore Inspection Software to improve collection, management, and review of inspection results." However, it was identified in last year's report that iRestore was implemented in 2021, "Discussion with the SME also confirmed that, in December 2021, BVES rolled out a new software, iRestore, allowing them to track issues in one consolidated location. " Please clarify if this software was implemented in 2021 or 2022.	Closed	5/30/2023	6/2/2023	5/31/2023	iRestore was realeased in 2021 but in a very limited and early develepment stage. Many of the features were implemented in 2022 and more features will be implemented into 2023 and 2024.		
13	7.3.3.9.2 Fault Isolation Localization and Service Restoration (FLISR)	The WMP states, "BVES has spent $189,510 (CAPEX) in 2021 supporting the FLISR Project in Tier 2 and Tier 3 HFTDs. BVES aims to have the project completed and in operation by the end of 2022." Please clarify if this project was completed in 2022. If so, can BVES provide any documentation detailing completion?	Closed	5/30/2023	6/2/2023	5/31/2023	The FLISR project was completed in 2022 , Please see attached "WO 40412086 TA (FLISR System Project).PDF" for Transaction Analysis		
14	7.3.2.3 - Fault indicators for detecting faults on electric lines and equipment (Situational Awareness Hardware Program):	We were unable to confirm fault indicators installed on two pole spans. Can you confirm the installation of two pole spans: 13661BV-13663BV and 14082BV-14083BV noted to be installed at Erwin Lake 4kV Circuit on 10/1/2022? If they were installed, can you please provide pictures of the installation. If they were not installed, can you please clarify why they were not installed?	Closed	5/31/2023	6/5/2023	6/5/2023	Please see attached "Fault Indicator Photos.zip" that show FI installed (13661BV and 14082BV)		
15	7.3.3.6 - Distribution pole replacement and reinforcement, including with composite poles (Evacuation Route Hardening Program):	The field verification noted an inconsistency in the quality of work of the poles that were fire wrapped (pole close to steel, gap between fire wraps; not full coverage). Can you provide a quality document (e.g., standard, procedure, manufacturer manual) for the installation of the fire wrap? Can you also clarify how the poles that are fire wrapped are assessed after installation to ensure the fire wrap is installed correctly?	Closed	5/31/2023	6/5/2023	6/5/2023	Please see attached "Fire Wipe.zip" for manufacture guidelines.		

16	7.3.3.12.2 - Other corrective action (Tree attachment removal program):	Two samples selected (15098BV and 15150BV) were noted by the field verification team to not be aligned with industry best practice. The team noted that due to the service being installed at a hard angle, the insulation could rub off and become a fire risk. Can you clarify the installation standard for service installation and can you provide a quality document covering the installation and inspection of service installed that replaces a tree attachment?	Closed	5/31/2023	6/5/2023	6/5/2023	Service wires were not connected to pole 15098BV, Pole 15098BV was use for a guy pole. Service wire are allow to run through tree branches and near tree. If it is rubbing against the tree then the service wire should have addition insulation sleeve (tree guard) around the service wire to prevent the insulation from rubbing off. The service wire did not have a hard angle or rubbing against a tree. (see attached 15098BV.zip) Due to the elevation of the house to be 40 feet+ lower then pole 15150BV. The service wire that is between pole 15150BV and the house has a lot of slack which is supported by the tree brench (see attached "15150BV.zip") BVES will work on fixing this.		
17	7.3.3.13 - Pole loading infrastructure hardening, and replacement program based on pole loading assessment program (Pole Loading & Replacement Program [Primary]):	Lack of consistency in climbing space was noted as a commonality during the field verifications team visit. The team noted there were inconsistencies in the climbing space distance from pole to pole as well as clearance issues that could potentially not meet GO 95 Standards. Can you clarify BVES standards for climbing space and provide a quality document pertaining to climbing space and maintaining the proper distance?	Closed	5/31/2023	6/5/2023	6/6/2023	Based on the spreadsheet provide by IE for the following pole #s 14643BV, 15003BV, 15005BV 15009BV and 15073BV indicated that "no climbing space". BVES field visited, review and don't see any issue regarding no climbing space. BVES follows GO 95 guidelines.		
18	7.3.4.14: Quality assurance / quality control of inspections	The BVES asset and inspection quality management plan (Revision 0) was issued in December 28, 2021, have audits been performed in the area of Asset Management & Inspections? If so please provide documentation of the first and last audit performed in 2022.	Closed	6/5/2023	6/8/2023	6/14/2023	Below list are our quality assurance or quality control (QA/QC) records and reports for programs, initiatives, or strategies described in the 2022 WMP Update: GO-165 Detailed Inspections – 29.6 circuit miles inspected - (refer to 2022 Detailed Inspections) G0-165 Patrol Inspections – 255 circuit miles inspected - (refer to 2022 Patrol Inspections) Pole Intrusive Inspections – 853 poles Inspected - (refer to 2022 Intrusive Poles) LiDAR inspection – 211 circuit miles inspected - (refer to 2022 LiDAR inspection) Third Party Ground Patrol – 211 circuit miles Inspected in 2022- (refer to 2022 BVES 3rd Party and UAV inspection) UAV Inspection – 211 circuit miles inspected - (refer to 2022 BVES 3rd Party and UAV inspection) Vegetation QCs conducted by management – 132 inspections (1,419 trees) (refer to 2022 Vegetation QA.QC) Covered Conductor QCs conducted on contractor installations – 12.96 circuit miles installed and inspected - (refer to 2022 Covered Conductor Installation QCs) Tree Attachment Removal QCs conducted on contractor installations - 83 Tree Attachment Removals (refer to 2022 TARP QCs)	The Asset & Inspection Quality Management Plan States, "QA involves thinking about what is required to ensure quality will be achieved, and to set out processes, standards, procedures and/or policies to do that. **Typical results of QA are quality plans, inspection and test plans (ITPs), documentation and training.** It moves a step up from finding the failures to aiming to prevent or eliminate them. The focus of QA is to provide confidence that requirements and standards are met, and that processes and system have been followed. Some examples of QA: • A checklist for assembly of product (the procedure/process as a series of steps that must be done). • A written procedure. • A set of processes for construction that cover the whole 'life cycle' from getting system requirements, through designing the system, procuring the materials or parts, constructing to applicable standards, testing, and placing in operation. • A set of processes for a service that cover the whole 'life cycle' from establishing what the system requires, through designing the service, developing and delivering it." Please clarify what activities BVES completed in 2022 that would fall under these "QA" examples.	Kurt, per your email on June 9,2023, yes we follow below" BVES Team, Just to confirm, with respect to the QA/QC process governing WMP initiative activities, was the following statement (originally provided by BVES for the 2020 and 2021 WMP evaluations) still generally true for 2022?: "QA/QC process for WMP work – we do not have a formal written process. This [is] the process we utilize: a) Contractor's design/planning group develops work package (instructions, drawings, materials, etc.). b) All work is reviewed by BVES prior to construction to ensure the accuracy of the scope, design, material, and supporting documentation. This review is conducted by the BVES Field Inspector and/or the Engineering & Planning Department. c) Once BVES approves the work package, BVES orders material and/or draws from stock if available. d) At BVES's direction, Contractor performs the specific work. e) BVES Field Inspector monitors the work in progress and performs regular progress inspections. f) When Contractor reports work is complete, BVES Field Inspector performs final inspection of the work in the field and performs the initial work package audit. Upon approval of field work and work package, an initial billing review is performed and approval for invoicing is given. g) Upon receipt of an invoice, the Project Coordinator performs a work package audit and validates the materials and work performed. Project Coordinator also performs a validation of billing units and ensures the Field Inspector's verification of work completion and approval for billing." Please confirm and let me know if you have any questions. Thank you and have a good weekend! Kurt
19	7.3.4.7: LiDAR Inspections of Distribution Electric Lines and Equipment	Please confirm that that approach described in last year's report is still accurate, or identify any changes: 1. Once data is received, BVES goes in to the field and validates any issues. 2. Once issues are validated, they are sent to the tree trimming contractor for resolution,and BVES does not have any documentation of corrections made in the field.	Closed	6/5/2023	6/8/2023	6/7/2023	Once BVES recieves the spread sheet of potential violations, the pre inspector goes into the field to validate the findings. Attached is the pre-inspectors findings and remediations called "LiDAR findings and prescriptions". Once the prescriptions are confirmed, crews are sent out to trim and issues.		
20	7.3.3.6.4. Distribution pole replacement and reinforcement, including with composite poles	The subject initiative appears in the 2022 WMP and seems to have a spend though we were unable to locate the initiative in any other documentaion. Please provide clarification on this initiative, specifically the scope of work and initiative target.	Closed	6/7/2023	6/12/2023	6/7/2023	7.3.3.6.4 Intitiative is the fire wrap poles program.		
21	7.3.3.6.4Distribution pole replacement and reinforcement, including with composite poles	In the BVES ARC table (excerpt below), the description for the variance for Initiative Activity 7.3.3.6.4. indicated that actual spend was lower than forecasted because the labor hours were higher than estimated. Can you please clarify/confirm the reasoning?	Closed	6/14/2023	6/16/2023	6/15/2023	The labor hours required to install the wire mesh was lower than estimated		
22	7.3.2.2.2: Online Diagnostic System Pilot / Continuous monitoring sensors	For Initiative #7.3.2.2.2: Online Diagnostic System Pilot / Continuous monitoring sensors, the initiative was intended to start in 2022, but was not complete due to equipment delays by the contractor, the initiative was not started until 2023. Can you please confirm?	Closed	6/15/2023	6/16/2023	6/16/2023	Online Diagnostic system pilot was defurred to 2023 due to manufacture delay in getting the materials in 2022. We just received the materials almost a month ago and have schedule with the contractor for the week of June 19th for installation.		
23	7.3.5.2: Vegetation Management & Inspections - Detailed inspections of vegetation around distribution electric lines and equipment / Detailed Inspection Program	As discussed during the call, can you also please confirm the intent of the below statement taken from slide 21 of the CBBL Manager Brief, dated November 2022. "Detailed Inspection (GO-165): BVES detailed inspections for 2022 were completed for 2021. 52 circuit miles inspected."	Closed	6/15/2023	6/16/2023	6/15/2023	Per 6/15 email by Paul Marconi, "It should have read: "Detailed Inspection (GO-165): BVES detailed inspections for 2022 were completed for 2021. 52 circuit miles inspected."" Per 6/15 email by Jared Hennen: " looking at the records it looks like the line was a typo. 2021 Detailed inspection mileage was 52 miles 2022 Detailed inspection mileage was about 32"		
24	7.3.3.11.2, The BVPP Phase 3 Upgrade Project,	For initiative 7.3.3.11.2, The BVPP Phase 3 Upgrade Project, the initiative appears that it was not completed in 2022. Can you please clarify why?	Closed	6/15/2023	6/16/2023	6/16/2023	Per initiative 7.3.3.11.2 it regarding BVPP Phase 4 Upgrade Project not BVPP Phase 3 Upgrade Project. BVPP Phase 4 upgrade project is in our 2023-2026 General Rate Cases (GRC) schedule for 2024 to start construction.	Based on SME interview with Tom Chou 6/16, Phase 3 was completed in 2022. WO Transaction Analysis to be provided as reference.	Please see attached WO 60400004 BVPP Phase 1-3 Upgrades Transaction Analysis.PDF for BVPP phase 3.

25	Initiative #7.3.6.1: Grid Operations & Operating Protocols - Automatic Recloser Operations / Grid Automation Program	Can you please clarify what activities were completed for this initiative in 2022	Closed	6/15/2023	6/16/2023	6/16/2023	Please see previous documentation provided "Field CB_Switch_Device Switching Records 2022.ZIP" for records in 2022.		
26	Initiative #7.3.10.2 Cooperation and best practice sharing with agencies outside CA and Initiative #7.3.10.3: Cooperation with suppression agencies	Can you please clarify how BVES engages with agencies outside CA and suppression agencies. If there have been any meetings with these types of agencies, can you provide the dates.	Closed	6/15/2023	6/16/2023	6/16/2023	In 2022, BVES employee attended IEEE/PES Transmission and Distribution Conference & Exposition (T&D) April 25-28 and DistribuTech Conference May 23-25.		

Bear Valley Electric Service - Wildfire Mitigation Plan - Compliance Review
Sargent & Lundy Document / Data Request Tracking Log
Update: June 16, 2023

No.	Document	File Name	FileType	Date Requested	Date Due	Date Received	Status
1	Wildfire Mitigation Plan Memorandum Account (WMPM	BVE fire mitigation 68552 thru 12-31-2022 clean	xlsx	4/25/2023	4/28/2023	5/4/20232	Closed
2	Fire Risk Mitigation Memorandum Account (FRMMA)	BVE Fire mitigation AL 364 70206W thru 12.31.2022 - clean copy	xlsx	4/25/2023	4/28/2023	5/4/20232	Closed
3	Fire Hazard Prevention Memorandum Account (FHPMA)	BVE fire prevention 1670.41 (subledger 68388 and 25947) thru 12.31.2022-Clean copy	xlsx	4/25/2023	4/28/2023	5/4/20232	Closed
4	Catastrophic Event Memorandum Account (CEMA)	None in 2022		4/25/2023	4/28/2023	5/4/20232	Closed
5	2022 ARC in Spreadsheet format	BVES_2022 ARC 20230331	xlsx	5/16/2023	5/19/2023	5/16/2023	Closed
6	2022 Substation Inspection Reports traceability in .xlsx format (preferably not PDF).	7.3.5 Veg Mgmt/2022 Substation Inspections	xlsx	5/19/2023	5/24/2023	5/25/2023	Closed
7	Please provide invoices for The Original Mowbray's	PDF "Mowbrays Invoices" Excel Sheet "Mowbrays paid invoices	PDF and xlsx	6/15/2023		6/16/2023	Closed

7.3.4.11 & 7.3.5.11 Patrol Inspection Program

Circuit Inspection Record (*Note: KBW extracted this from the relevant PDF - use at your own risk)

#	Circuit Name	Voltage	Inspection Type	Offcycle	Inspector	Date
1	Boulder	4kV	Patrol	Yes	Rick Villines	8/24/2022
2	Castle Glen	4kV	Patrol	No	Rick Villines	8/2/2022
3	Club View	4kV	Patrol	No	Rick Villines	9/14/2022
4	Club View	4kV	Patrol	No	Rick Villines	10/21/2022
5	Eagle	4kV	Patrol	No	Rick Villines	9/22/2022
6	Harnish	4kV	Patrol		Rick Villines	12/5/2022
7	Holcomb	4kV	Patrol	No	Rick Villines	6/17/2022
8	Pump House	4kV	Patrol	No	Rick Villines	5/11/2022
9	Country Club	4kV	Patrol	No	Rick Villines	5/26/2022
10	North Shore	4kV	Patrol	No	Rick Villines	4/22/2022
11	Garstin	4kV	Patrol	No	Rick Villines	5/11/2022
12	Interlaken	4kV	Patrol	No	Rick Villines	8/2/2022
13	Paradise	4kV	Patrol	No	Rick Villines	8/1/2022
14	Pioneer	4kV	Patrol	No	Rick Villines	10/28/2022
15	Pioneer	4kV	Patrol	No	Rick Villines	11/1/2022
16	Pump House	4kV	Patrol		Rick Villines	2/29/2022
17	Sunrise	4kV	Patrol	No	Rick Villines	9/26/2022
18	Sunset	4kV	Patrol	No	Rick Villines	9/27/2022

Note: The "2022 Patrol Inspections.pdf" provided by BVES contains all of the relevant records for this initiative.

7.3.4.13 Pole Loading & Replacement Program

Note: Per Tom Chou's Email on 5/19/2023, "Initiative target 7.3.4.13 is based on 'pole assessed' not poles replaced. Supporting Doc ... [7.3.4.13 Pole Replacement Supporting Docs Part 1.zip] ... will have Windload reports and not all poles assessed were replaced. We are working getting the rest to you next week [5/22-26/2023]."

#	Ex. Pole #	Circuit (Top)	Location	Assets Date	Pass /Fail	WO #	LAT: LONG: GPS		Designer		BVES Comments
1	**FEBRUARY**										
2	7545BV	Bear City	1027 Bear MTN	2/1/2022	FAIL		34.2679559, -116.8586448		IZ	assesed	4
3	3844BV	Bear City	400 E North Shore	2/1/2022	FAIL		34.2717624, -116.8383693		IZ		
4	3845BV	Bear City	400 E North Shore	2/1/2022	FAIL		34.2717068, -116.8374089		IZ		
5	P_7086	Bear City	400 E North Shore	2/1/2022	FAIL		34.2717944, -116.8389666		IZ		
6	**MARCH**										
7	10863BV	Goldmine	43240 Sheephorn	3/1/2022	FAIL	60400095	34.2346185, -116.8586270		IZ	assesed	24
8	10862BV	Goldmine	43240 Sheephorn	3/1/2022	FAIL	60400095	34.2344297, -116.8592649		IZ		
9	23946CIT	Sunset	683 Kern	3/1/2022	FAIL	60400090	34.2395700, -116.8349478		IZ		
10	23945CIT	Sunset	683 Kern	3/1/2022	FAIL	60400090	34.2401318, -116.8349304		IZ		
11	5082BV	Goldmine	1142 Siskiyou	3/1/2022	FAIL	60400098	34.23166624, -116.8588705		IZ		
12	5081BV	Goldmine	1131 Siskiyou	3/1/2022	FAIL	60400098	34.2315601, -116.8582893		IZ		
13	37262CIT	Goldmine	1119 Siskiyou	3/1/2022	PASS	60400098	34.2316541,-116.8580727		IZ		
14	5323BV	Goldmine	43284 Shasta	3/1/2022	FAIL		34.2312846, -116.85777097		IZ		
15	8072BV	Castle Glen 4kv	140 Silverpeck Rd	3/10/2022	FAIL	60400094	N34" 14' 58.43"/W-116" 52' 38.06"		OS		
16	7521BV	Castle Glen 4kv	512 Pinewood CT	3/8/2022	FAIL	60400094	N34" 15' 11.96"/W-116" 51' 54.38"		OS		
17	62465CTC	Castle Glen 4kv	149 Winding Way	3/4/2022	FAIL	60400094	N34" 15' 29.57"/W-116" 51' 28.65"		OS		
18	1557BV	Castle Glen 4kv	1025 Rainbow DR	3/10/2022	FAIL	60400094	N34" 15' 30.69"/W-116" 51' 47.52"		OS		
19	35784CIT	Castle Glen 4kv	1101 Big Bear Blvd	3/8/2022	FAIL	60400094	N34" 15' 37.88"/W-116" 51' 51.34"		OS		
20	11654BV	Holcomb 4KV	365 N. Shore Dr	3/8/2022	FAIL	60400094	N34" 16' 6.35"/W-116" 51' 1.39"		OS		
21	4954BV	Holcomb 4KV	229 W. Mojave Blvd	3/9/2022	FAIL	60400094	N34" 15' 37.84"/W-116" 50' 55.50"		OS		
22	7562BV	Holcomb 4KV	1027 Whisperinf Forest Dr	3/7/2022	FAIL	60400094	N34" 16' 04.15"/W-116" 51' 32.40"		OS		
23	8226BV	Holcomb 4KV	1088 Hugo Ln	3/4/2022	FAIL	60400094	N34" 16' 15.45"/W-116" 50' 32.24"		OS		
24	6638BV	Holcomb 4KV	1099 Pan Springs Ln	3/4/2022	FAIL	60400094	N34" 16' 19.39"/W-116" 50' 26/99"		OS		
25	11616BV	Holcomb 4KV	101 E N Shore Dr	3/16/2022	FAIL	60400094	N34' 16' 15.31"/W-116" 50' 45.32"		OS		
26	31717CIT	Holcomb 4KV	513 N Shore Dr	3/10/2022	FAIL	60400094	N34" 15' 58.05"/W-116" 51' 16.57"		OS		
27	60700CIT	Holcomb 4KV	924 Peter Ave	3/7/2022	FAIL	60400094	N34" 16' 00.18"/W-116" 51' 00.98"		OS		
28	5154BV	Holcomb 4KV	903 Sierra Ave	3/4/2022	FAIL	60400094	N34' 15' 57.53"/W-116' 50' 45.38"		OS		
29	3771BV	Holcomb 4KV	1100 Sequoia Dr	3/15/2022	FAIL	60400094	N34' 16' 17.95"/W-116" 50' 41.98"		OS		
30	60490CIT	Holcomb 4KV	1113 Myrtle Ave	3/4/2022	FAIL	60400094	N34" 16' 14.43"/W-116" 50' 52.16"		OS		
31	**APRIL**										
32	10978BV	Clubview	Fir St.	4/1/2022	FAIL	60400097	34.23985395, -116.8727001389		SD	assesed	2
33	9385BV	Clubview	Elm St.	4/1/2022	FAIL	60400097	34.240158, -116.874394		SD		
34											
35											
36											
37											
38	**MAY**										
39	10804BV	SHAY 34KV / EAGEL 4KV	41436 Park Ave	5/24/2022	FAIL		34.24659556	-116.898008	OS	assesed	51

40	12656BV	SHAY 34KV/GEORGIA 4KV	465 Georgia St	5/11/2022	FAIL		34.24424259	-116.9004406	OS	
41	13081BV	SHAY 34KV	41275 Big Bear Blvd	5/11/2022	**Pass**		34.24300278	-116.9002991	OS	
42	10506BV	SHAY 34KV/GEORGIA 4KV	696 Georgia St	5/3/2022	FAIL		34.2398957	-116.9000168	OS	
43	5961BV	SHAY 34KV / EAGLE 4KV	41562 Park Ave	5/31/2022	FAIL		34.24635548	-116.8950918	OS	
44	5960BV	SHAY 34KV / EAGLE 4KV	353 Wren Dr	5/31/2022	FAIL		34.24641821	-116.8957428	OS	
45	10801BV	SHAY 34KV / EAGLE 4KV	317 Wren Dr	5/31/2022	FAIL		34.24668854	-116.8961787	OS	
46	12085BV	SHAY 34KV / EAGLE 4KV	41486 Park Ave	5/31/2022	FAIL		34.24648274	-116.8970911	OS	
47	10803BV	SHAY 34KV / EAGLE 4KV	41436 Park Ave	5/24/2022	FAIL		34.24627394	-116.8978146	OS	
48	10805BV	SHAY 34KV / EAGLE 4KV	41437 Park Ave	5/23/2022	FAIL		34.24599524	-116.8981773	OS	
49	12555BV	SHAY 34KV / EAGLE 4KV	41395 Lahontan Dr	5/20/2022	FAIL		34.24542109	-116.8987776	OS	
50	12556BV	SHAY 34KV / EAGLE 4KV	398 Conklin Rd	5/20/2022	FAIL		34.2454554	-116.8991005	OS	
51	10808BV	SHAY 34KV / EAGLE 4KV	41347 Lahontan Dr	5/19/2022	FAIL		34.24547663	-116.9000108	OS	
52	12605BV	SHAY 34KV / EAGLE 4KV	402 Georgia St	5/13/2022	**Pass**		34.24550741	-116.9004915	OS	
53	13180BV	SHAY 34KV / EAGLE 4KV	402 Georgia St	5/12/2022	**Pass**		34.24534383	-116.9004329	OS	
54	11024BV	SHAY 34KV/GEORGIA 4KV	418 Georgia St	5/12/2022	**Pass**		34.24517363	-116.9004644	OS	
55	12473BV	SHAY 34KV/GEORGIA 4KV	434 Georgia St	5/12/2022	FAIL		34.24478928	-116.9004889	OS	
56	12657BV	SHAY 34KV/GEORGIA 4KV	449 Georgia St	5/11/2022	**Pass**		34.24449686	-116.9004947	OS	
57	4135BV	SHAY 34KV/GEORGIA 4KV	541 Georgia St	5/4/2022	FAIL		34.24289189	-116.9003797	OS	
58	4136BV	SHAY 34KV/GEORGIA 4KV	575 Georgia St	5/4/2022	FAIL		34.24231744	-116.900524	OS	
59	12065BV	SHAY 34KV/GEORGIA 4KV	605 Georgia St	5/4/2022	FAIL		34.24172024	-116.9004746	OS	
60	12279BV	SHAY 34KV/GEORGIA 4KV	635 Georgia St	5/4/2022	FAIL		34.24131697	-116.9003509	OS	
61	4139BV	SHAY 34KV/GEORGIA 4KV	657 Gerorgia St	5/3/2022	FAIL		34.24088997	-116.9003999	OS	
62	12928BV	SHAY 34KV/GEORGIA 4KV	685 Georgia St	5/3/2022	**Pass**		34.24034909	-116.9004003	OS	
63	10542BV	SHAY 34KV/GEORGIA 4KV	717 Jeffries Rd	5/2/2022	FAIL		34.24027978	-116.9010215	OS	
64	4149BV	GEORGIA 4KV	41209 Pennsylvania Ave	5/25/2022	FAIL		34.23901753	-116.9029343	OS	
65	4150BV	SHAY 34KV/GEORGIA 4KV	41191 Pennsylvania Ave	5/12/2022	FAIL		34.23928982	-116.9036725	OS	
66	12419BV	SHAY 34KV/GEORGIA 4KV	41171 Pennsylvania Ave	5/12/2022	FAIL		34.23928982	-116.9036725	OS	
67	12326BV	SHAY 34KV/GEORGIA 4KV	41121 Pennsylvania Ave	5/12/2022	FAIL		34.23912612	-116.9048554	OS	
68	12256BV	SHAY 34KV/GEORGIA 4KV	41091 Pennsylvania Ave	5/12/2022	FAIL		34.23916596	-116.9053637	OS	
69	12257BV	SHAY 34KV/GEORGIA 4KV	41073 Pennsylvania Ave	5/12/2022	**Pass**		34.23930955	-116.9057623	OS	
70	4154BV	SHAY 34KV/GEORGIA 4KV	41063 Pennsylvania Ave	5/12/2022	FAIL		34.23921905	-116.9065503	OS	
71	13022BV	SHAY 34KV/GEORGIA 4KV	753 Marin Dr	5/5/2022	**Pass**		34.23921905	-116.9065503	OS	
72	13755BV	SHAY 34KV/GEORGIA 4KV	40997 Pennsylvania Ave	5/23/2022	FAIL		34.23928954	-116.9075115	OS	
73	12056BV	SHAY 34KV/GEORGIA 4KV	40971 Pennsylvania Ave	5/24/2022	FAIL		34.23926114	-116.907941	OS	
74	106BV	SHAY 34KV / EAGLE 4V	402 Georgia St	5/12/2022	**Pass**		34.24532457	-116.900467	OS	
75	4472BV	SHAY 34KV / EAGLE 4KV	41437 Park Ave	5/24/2022	FAIL		34.2465217	-116.8979035	OS	
76	CTC62962	SHAY 34KV / EAGLE 4KV	41483 Park Ave	5/31/2022	FAIL		34.24668734	-116.8971932	OS	
77	34536CIT	SHAY 34KV/GEORGIA 4KV	715 GEORGIA ST	5/3/2022	FAIL				OS	
78	12068BV	SHAY 34KV/GEORGIA 4KV	693 GEORGIA ST	5/3/2022	FAIL				OS	
79	11865BV	GEORGIA 4KV	527 GEORGIA ST	5/10/2022	FAIL				OS	
80	13196BV	EAGLE 4KV	373 GEORGIA ST	5/13/2022	FAIL				OS	
81	3940BV	EAGLE 4KV	41417 LAHONTAN DR	5/23/2022	FAIL				OS	
82	10592BV	SHAY 34KV / EAGLE 4KV	41409 PARK AVE	5/24/2022	FAIL				OS	
83		SHAY 34KV / EAGLE 4KV	365 GEORGIA ST	5/13/2022	ADDED POLE4				OS	
84	5938BV	SHAY 34KV / GARSTIN 4KV	880 SUMMIT Blvd	5/30/2022	**Pass**		34°14'13.90"	116°53'32.74"	OS	
85	5984BV	SHAY 34KV / GARSTIN 4KV	41714 SWITZERLAND Dr	5/30/2022	**Pass**		34°14'15.19"	116°53'32.73"	OS	
86		SHAY 34KV / EAGLE 4KV		5/31/2022	ADDED POLE5				OS	

87	62869CTC	GOLDMINE	815 Villa Grove	5/7/2022	FAIL		34.2422757, -116.8592955		IZ		
88	60519CTC	GOLDMINE	815 Villa Grove	5/7/2022	FAIL		34.2425034, -116.8598148		IZ		
89	1697BV	GOLDMINE	1000 SAHUARO	5/7/2022	FAIL		34.2430798, -116.8637900		IZ		
90											
91	**JUNE**										
92	12918BV	SHAY 34KV/GARSKIN 4KV	41741 Switzerland Dr	6/23/2022	FAIL		34.23740989	-116.8907513	OS	assesed	67
93	13191BV	SHAY 34KV / EAGLE 4KV	41688 Tahoe Dr	6/7/2022	**Pass**		34.24430902	-116.8921509	OS		
94	9653BV	SHAY 34KV / GARSTIN 4KV	41860 Big Bear Blvd	6/10/2022	FAIL		34.24499518	-116.8886763	OS		
95	12305BV	SHAY 34KV / EAGLE 4KV	387 Eureka Dr	6/21/2022	FAIL		34.24544539	-116.8987634	OS		
96	12907BV	SHAY 34KV/GEORGIA 4KV	717 Jeffries Rd	6/30/2022	**Pass**		34.24001754	-116.9013925	OS		
97	11392BV	SHAY 34KV/GEORGIA 4KV	741 Jeffries Rd	6/16/2022	FAIL		34.23905366	-116.9020838	OS		
98	11991BV	SHAY 34KV/GEORGIA 4KV	40971 Pennsylvania Ave	6/2/2022	FAIL		34.23958103	-116.9083497	OS		
99	12900BV	SHAY 34KV/GEORGIA 4KV	40954 Pennsylvania Ave	6/2/2022	**Pass**		34.23972203	-116.9084735	OS		
100	11765BV	SHAY 34KV / LAKE 4KV	41939 Fox Farm Rd	6/24/2022	FAIL		34.24748344	-116.8869824	OS		
101	10411BV	SHAY 34KV / LAKE4KV	41856 Fox Farm Rd	6/24/2022	FAIL		34.2476464	-116.8868978	OS		
102	11764BV	SHAY 34KV / LAKE 4KV	41856 Fox Farm Rd	6/24/2022	FAIL		34.24802939	-116.8876823	OS		
103	10412BV	SHAY 34KV / LAKE 4KV	41856 Fox Farm Rd	6/24/2022	FAIL		34.24868168	-116.8882765	OS		
104	11758BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/30/2022	FAIL		34.25169222	-116.8899455	OS		
105	10417BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/29/2022	FAIL		34.25169222	-116.8899455	OS		
106	11759BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/29/2022	FAIL		34.25102773	-116.8900573	OS		
107	10416BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/29/2022	FAIL		34.2506705	-116.8895263	OS		
108	11760BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/28/2022	FAIL		34.25068142	-116.8898194	OS		
109	10415BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/28/2022	FAIL		34.25017392	-116.889549	OS		
110	11761BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/28/2022	FAIL		34.25005533	-116.8892155	OS		
111	11763BV	SHAY 34KV / LAKE 4KV	41856 Fox Farm Rd	6/24/2022	FAIL		34.24883533	-116.8884235	OS		
112	P_9099	SHAY 34KV / LAKE 4KV	41856 Fox Farm Rd	6/27/2022	FAIL		34.2491064	-116.8886264	OS		
113	11762BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	6/27/2022	FAIL		34.24962327	-116.888998	OS		
114	12703BV	SHAY 34KV / GARSTIN 4KV	41974 Garstin Rd	6/30/2022	FAIL		34.24647718	-116.8857683	OS		
115	9654BV	SHAY 34KV / GARSTIN 4KV	385 Summit Blvd	6/14/2022	FAIL		34.24539664	-116.8879781	OS		
116	9655BV	SHAY 34KV / GARSTIN 4KV	370 Summit Blvd	6/14/2022	FAIL		34.24554724	-116.8881373	OS		
117	9656BV	SHAY 34KV / GARSTIN 4KV	370 Summit Blvd	6/14/2022	FAIL		34.24554724	-116.8881373	OS		
118	9657BV	SHAY 34KV / GARSTIN 4KV	41870 Garstin Rd	6/15/2022	FAIL		34.24597145	-116.8876246	OS		
119	8985BV	SHAY 34KV / GARSTIN 4KV	41930 Garstin Rd	6/15/2022	FAIL		34.24598741	-116.8876401	OS		
120	10946BV	SHAY 34KV / GARSTIN 4KV	41970 Garstin Rd	6/15/2022	FAIL		34.24571596	-116.8865241	OS		
121	9651BV	SHAY 34KV	41860 Big Bear Blvd	6/10/2022	FAIL		34.24496102	-116.8905152	OS		
122	13118BV	SHAY 34KV / EAGLE 4KV	475 Thrush Dr	6/7/2022	**Pass**		34.24496102	-116.8905152	OS		
123	BV11690	SHAY 34KV / EAGLE 4KV	475 Thrush Dr	6/7/2022	**Pass**		34.24481625	-116.8917192	OS		
124	9647BV	SHAY 34KV / EAGLE 4KV	475 Thrush Dr	6/8/2022	FAIL		34.24492556	-116.8914391	OS		
125	9649BV	SHAY 34KV	475 Thrush Dr	6/8/2022	**Pass**		34.24478736	-116.8904713	OS		
126	9650BV	SHAY 34KV	41820 Big Bear Blvd	6/8/2022	**Pass**		34.24490179	-116.8900946	OS		
127	9652BV	SHAY 34KV	41860 Big Bear Blvd	6/10/2022	FAIL		34.24480059	-116.8887071	OS		
128	9648BV	SHAY 34KV / EAGLE 4KV	475 Thrush Dr	6/8/2022	FAIL		34.24500536	-116.8910428	OS		
129	12926BV	SHAY 34KV / EAGLE 4KV	475 Thrush Dr	6/7/2022	**Pass**		34.24457252	-116.8919787	OS		
130	12914BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	6/22/2022	**Pass**		34.23763877	-116.8894087	OS		
131	12915BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	6/22/2022	**Pass**		34.23763877	-116.8894087	OS		
132	12916BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	6/22/2022	**Pass**		34.23759812	-116.8901687	OS		

133		SHAY 34KV / GARSTIN 4KV		6/10/2022	ADDED POLE6				OS	
134	12961BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	6/24/2022	FAIL		34.23760061	-116.8914868	OS	
135	12917BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	6/10/2022	**Pass**		34.23760061	-116.8914868	OS	
136	7488BV	SHAY 34KV / EAGLE 4KV	41692 P ark Ave	6/7/2022	FAIL		34.24494845	-116.8924957	OS	
137	5966BV	SHAY 34KV / EAGLE 4KV	41670 Park Ave	6/1/2022	FAIL		34.24523512	-116.8927545	OS	
138	5965BV	SHAY 34KV / EAGLE 4KV	41650 Park Ave	6/1/2022	FAIL		34.24548964	-116.8931422	OS	
139	5964BV	SHAY 34KV / EAGLE 4KV	41638 Park Ave	6/1/2022	FAIL		34.24565951	-116.8932444	OS	
140	5963BV	SHAY 34KV / EAGLE 4KV	41606 Park Ave	6/1/2022	FAIL		34.2458987	-116.8937425	OS	
141	5962BV	SHAY 34KV / EAGLE 4KV	41584 Park Ave	6/1/2022	FAIL		34.24614393	-116.8946966	OS	
142		SHAY 34KV / GARSTIN 4KV	4187 GARSTIN DR	6/15/2022	ADDED POLE7		34°14'45.85"	116°53'18.51"	OS	
143	4146BV	SHAY 34KV/GEORGIA 4KV	717 Jeffries Rd	6/17/2022	FAIL		34.23966985	-116.901857	OS	
144	12100BV	SHAY 34KV	758 Jeffreis Rd	6/8/2022	**Pass**		34.23908178	-116.9024454	OS	
145	12420BV	SHAY 34KV	41233 Pennsylvania Ave	6/8/2022	**Pass**		34.23908178	-116.9024454	OS	
146	10545BV	SHAY 34KV/GEORGIA 4KV	40971 Pennsylvania Ave	6/2/2022	FAIL		34.2394281	-116.9082816	OS	
147	12362BV	GEORGIA 4KV	40954 Pennsylvania Ave	6/2/2022	**Pass**		34.24006697	-116.9085607	OS	
148	13015BV	GEORGIA 4KV	465 Georgia St	6/22/2022	FAIL		34.24423016	-116.9005533	OS	
149	30007CIT	GEORGIA 4KV	40990 Pennsylvania Ave	6/2/2022	FAIL		34.23993601	-116.908483	OS	
150	9601BV	GEORGIA 4KV		6/20/2022	FAIL		34°14'20.03"	116°54'7.19"	OS	
151	12098BV	GEORGIA 4KV		6/30/2022	FAIL		34° 14' 24.23"	116° 54' 7.27"	OS	
152	CIT60469	EAGLE 4KV	41301 LAHONTAN DR	6/22/2022	**Pass**				OS	
153	15149BV	SHAY 34KV / EAGLE 4KV	41730 PARK AVE	6/7/2022	**Pass**				OS	
154	7699BV_PL	EAGLE 4KV	41792 TANAGER DR	6/8/2022	FAIL				OS	
155	13184BV	SHAY 34KV / GARSTIN 4KV		6/14/2022	**Pass**		34°14'40.41"	116°53'18.52"	OS	
156	10414BV	SHAY 34KV / GARSTIN 4KV	41773 Garstin Dr	6/27/2022	FAIL		34°14'59.77"	116°53'21.84"	OS	
157		SHAY 34KV / EAGLE 4KV	41417 LAHONTAN DR	6/21/2022	ADDED POLE8				OS	
158		EAGLE 4KV	402 GEORGIA ST	6/22/2022	ADDED POLE9				OS	
159									OS	
160	**JULY**									
161	BV11109	SHAY 34KV / INTERLAKEN 4KV	1238 Fox Farm Rd	7/15/2022	FAIL		34.24842342	-116.8677536	OS	**assesed** 73
162	13192BV	SHAY 34KV/ EAGLE 4KV	41717 Big Bear Blvd	7/20/2022	**Pass**		34.2437881	-116.8918167	OS	
163	14700BV	SHAY 34KV/GARSKIN 4KV	806 Summit Blvd	7/29/2022	FAIL		34.23754351	-116.8885901	OS	
164	8984BV	SHAY 34KV /GARSTIN 4KV	41970 Garstin Rd	7/11/2022	FAIL		34.24585888	-116.8857844	OS	
165	13045BV	SHAY 34KV / INTERLAKEN 4KV	42136 Big Bear Blvd	7/8/2022	FAIL		34.24969609	-116.8838093	OS	
166	10418BV	SHAY 34KV / LAKE 4KV	41773 Garstin Dr	7/6/2022	FAIL		34.25222753	-116.8902506	OS	
167	11108BV	SHAY 34KV / INTERLAKEN 4KV	42232 Fox Farm Rd	7/29/2022	FAIL		34.2496285	-116.8803585	OS	
168	8940BV	SHAY 34KV / INTERLAKEN 4KV	1225 Fox Farm Rd	7/15/2022	FAIL		34.24855094	-116.8670002	OS	
169	8941BV	SHAY 34KV / INTERLAKEN 4KV	1249 Fox Farm Rd	7/15/2022	FAIL		34.24857457	-116.8676933	OS	
170	11107BV	SHAY 34KV / INTERLAKEN 4KV	1265 Fox Farm Rd	7/15/2022	FAIL		34.24867184	-116.8681811	OS	
171	8943BV	SHAY 34KV / INTERLAKEN 4KV	42788 Fox Farm Rd	7/18/2022	FAIL		34.24872322	-116.8686185	OS	
172	10767BV	SHAY 34KV / INTERLAKEN 4KV	42768 Fox Farm Rd	7/18/2022	FAIL		34.24887202	-116.8689461	OS	
173	8945BV	SHAY 34KV / INTERLAKEN 4KV	42756 Fox Farm Rd	7/19/2022	FAIL		34.24891029	-116.86968	OS	
174	8946BV	SHAY 34KV / INTERLAKEN 4KV	42744 Fox Farm Rd	7/19/2022	FAIL		34.24886034	-116.8698538	OS	
175	9427BV	SHAY 34KV / INTERLAKEN 4KV	42710 Fox Farm Rd	7/19/2022	FAIL		34.24892972	-116.8704486	OS	

8940BV is the old pole number that was replaced in 2022 with pole number 15040BV

176	8948BV	SHAY 34KV / INTERLAKEN 4KV	42688 Fox Farm Rd	7/19/2022	FAIL		34.24895417	-116.8707719	OS	
177	8949BV	SHAY 34KV / INTERLAKEN 4KV	42668 Fox Farm Rd	7/20/2022	FAIL		34.2491618	-116.8716186	OS	
178	8950BV	SHAY 34KV / INTERLAKEN 4KV	42638 Fox Farm Rd	7/20/2022	FAIL		34.24915673	-116.8719311	OS	
179	8951BV	SHAY 34KV / INTERLAKEN 4KV	42626 Fox Farm Rd	7/20/2022	FAIL		34.2489734	-116.872563	OS	
180	8952BV	SHAY 34KV / INTERLAKEN 4KV	42580 Fox Farm Rd	7/20/2022	FAIL		34.24898404	-116.8731819	OS	
181	8953BV	SHAY 34KV / INTERLAKEN 4KV	177 Crystal Lake Rd	7/21/2022	FAIL		34.24904749	-116.8734543	OS	
182	8954BV	SHAY 34KV / INTERLAKEN 4KV	42532 Fox Farm Rd	7/21/2022	FAIL		34.24924697	-116.8739494	OS	
183	8955BV	SHAY 34KV / INTERLAKEN 4KV	42512 Fox Farm Rd	7/21/2022	FAIL		34.24911809	-116.8747494	OS	
184	9429BV	SHAY 34KV / INTERLAKEN 4KV	42460 Fox Farm Rd	7/22/2022	FAIL		34.24906863	-116.8752492	OS	
185	9428BV	SHAY 34KV / INTERLAKEN 4KV	42480 Fox Farm Rd	7/21/2022	FAIL		34.24903896	-116.8752357	OS	
186	9430BV	SHAY 34KV / INTERLAKEN 4KV	42450 Fox Farm Rd	7/22/2022	FAIL		34.24898473	-116.8760279	OS	
187	9431BV	SHAY 34KV / INTERLAKEN 4KV	42420 Fox Farm Rd	7/22/2022	FAIL		34.24900514	-116.8763774	OS	
188	11111BV	SHAY 34KV / INTERLAKEN 4KV	42410 Fox Farm Rd	7/25/2022	FAIL		34.24892282	-116.8769857	OS	
189	8962BV	SHAY 34KV / INTERLAKEN 4KV	42386 Fox Farm Rd	7/26/2022	FAIL		34.24912596	-116.8773418	OS	
190	9432BV	SHAY 34KV / INTERLAKEN 4KV	42376 Fox Farm Rd	7/26/2022	FAIL		34.24912596	-116.8773418	OS	
191	8963BV	SHAY 34KV / INTERLAKEN 4KV	42350 Fox Farm Rd	7/26/2022	FAIL		34.24953313	-116.878228	OS	
192	9433BV	SHAY 34KV / INTERLAKEN 4KV	42290 Fox Farm Rd	7/27/2022	FAIL		34.24939726	-116.8788407	OS	
193	11110BV	SHAY 34KV / INTERLAKEN 4KV	42285 Fox Farm Rd	7/27/2022	FAIL		34.24937831	-116.8792533	OS	
194	9434BV	SHAY 34KV / INTERLAKEN 4KV	42265 Fox Farm Rd	7/27/2022	FAIL		34.24952591	-116.8796725	OS	
195	8969BV	SHAY 34KV / INTERLAKEN 4KV	42255 Fox Farm Rd	7/29/2022	FAIL		34.24953658	-116.8806254	OS	
196	9667BV	SHAY 34KV / INTERLAKEN 4KV	42136 Big Bear Blvd	7/8/2022	FAIL		34.24970845	-116.8837762	OS	
197	14735BV	SHAY 34KV / INTERLAKEN 4KV	42050 Fox Farm Rd	7/8/2022	**Pass**		34.24910955	-116.8846564	OS	
198	9666BV	SHAY 34KV / INTERLAKEN 4KV	42050 Fox Farm Rd	7/8/2022	FAIL		34.24918556	-116.8845034	OS	
199	9664BV	SHAY 34KV / INTERLAKEN 4KV	42140 Big Bear Blvd	7/7/2022	FAIL		34.24849026	-116.8850698	OS	
200	9663BV	SHAY 34KV / INTERLAKEN 4KV	42140 Big Bear Blvd	7/7/2022	FAIL		34.24812048	-116.8853333	OS	
201	9662BV	SHAY 34KV / INTERLAKEN 4KV	42140 Big Bear Blvd	7/5/2022	FAIL		34.24775872	-116.8852108	OS	
202	9661BV	SHAY 34KV / INTERLAKEN 4KV	41974 Garstin Rd	7/5/2022	FAIL		34.24717142	-116.8859292	OS	
203	9658BV	SHAY 34KV / GARSTIN 4KV	41970 Garstin Rd	7/1/2022	FAIL		34.24612466	-116.8858305	OS	
204	9659BV	SHAY 34KV / GARSTIN 4KV	41974 Garstin Rd	7/1/2022	FAIL		34.24612466	-116.8858305	OS	
205	9660BV	SHAY 34KV / GARSTIN 4KV	41974 Garstin Rd	7/1/2022	FAIL		34.24647718	-116.8857683	OS	
206	10608BV	SHAY 34KV / EAGLE 4KV	41717 Big Bear Blvd	7/19/2022	**Pass**		34.24261805	-116.8919742	OS	
207	10649BV	SHAY 34KV / EAGLE 4KV	573 Thrush Dr	7/18/2022	FAIL		34.2425146	-116.8919167	OS	
208	12912BV	SHAY 34KV / GARSTIN 4KV	41873 Switzerland Dr	7/29/2022	**Pass**		34.23763877	-116.8894087	OS	
209	12913BV	SHAY 34KV / GARSTIN 4KV	880 Summit Blvd	7/27/2022	FAIL		34.23763877	-116.8894087	OS	
210	5983BV	SHAY 34KV / GARSTIN 4KV	41714 Switzerland Dr	7/5/2022	FAIL		34.2378955	-116.891983	OS	
211	5982BV	SHAY 34KV / GARSTIN 4KV	41714 Switzerland Dr	7/5/2022	FAIL		34.23786468	-116.8923856	OS	
212	P_4963	SHAY 34KV / GARSTIN 4KV	783 Thrush Dr	7/6/2022	FAIL		34.23833459	-116.8923752	OS	
213	12919BV	SHAY 34KV / GARSTIN 4KV	763 Thrush Dr	7/6/2022	**Pass**		34.23874387	-116.8923238	OS	
214	12920BV	SHAY 34KV / GARSTIN 4KV	741 Thrush Dr	7/8/2022	**Pass**		34.23887446	-116.8922378	OS	
215	12921BV	SHAY 34KV / GARSTIN 4KV	730 Thrush Dr	7/8/2022	**Pass**		34.23917665	-116.8922402	OS	
216	12922BV	SHAY 34KV / GARSTIN 4KV	685 Thrush Dr	7/8/2022	**Pass**		34.23975725	-116.8923108	OS	
217	10607BV	SHAY 34KV/EAGLE 4KV	675 Thrush Dr	7/27/2022	FAIL		34.24273333	-116.8923778	OS	
218	11150BV	SHAY 34KV / GARSTIN 4KV	41719 Comstock Ln	7/11/2022	**Pass**		34.24056575	-116.8922645	OS	
219	12923BV	SHAY 34KV / GARSTIN 4KV	625 Thrush Dr	7/11/2022	**Pass**		34.24095416	-116.8922133	OS	
220	12924BV	SHAY 34KV / GARSTIN 4KV	603 Thrush Dr	7/15/2022	**Pass**		34.24135047	-116.8921606	OS	
221	12925BV	SHAY 34KV / GARSTIN 4KV	583 Thrush Dr	7/15/2022	**Pass**		34.24178277	-116.892214	OS	
222	12528BV	SHAY 34KV / GARSTIN 4KV	41965 Garstin Rd	7/11/2022	FAIL		34.24590655	-116.8860226	OS	

223	8983BV	SHAY 34KV / GARSTIN 4KV	41970 Garstin Rd	7/11/2022	FAIL		34.24590655	-116.8860226	OS		
224	10491BV	SHAY 34KV / INTERLAKEN 4KV	42405 Fox Farm Rd	7/25/2022	FAIL		34.24901879	-116.877061	OS		
225	4482BV	SHAY 34KV / INTERLAKEN 4KV	42425 Fox Farm Rd	7/22/2022	FAIL		34.24910627	-116.876679	OS		
226	14889BV	SHAY 34KV / INTERLAKEN 4KV	1260 Fox Farm Rd	7/15/2022	**Pass**		34.24878163	-116.868239	OS		
227	35759CIT	GEORGIA 4KV	696 JEFFRIES RD	7/7/2022	FAIL		34°14'23.36"	116°54'7.74"	OS		
228	13040BV	SHAY 34KV / INTERLAKEN 4KV	42050 Fox Farm Rd	7/8/2022	**Pass**		34°14'58.12"	116°53'02.86"	OS		
229	10571BV	SHAY 34KV / INTERLAKEN 4KV		7/19/2022	FAIL		34°52'13.07"	116°52'13.07"	OS		
230	11299BV	SHAY 34KV / INTERLAKEN 4KV	42639 HOUSTON CT	7/20/2022	FAIL		34°14'55.27"	116°52'19.16"	OS		
231	NO POLE #	SHAY 34KV / GARSTIN 4KV	41974 Garstin Rd	7/5/2022	**Pass**		34°14'49.42"	116°53'09.02"	OS		
232		SHAY 34KV / INTERLAKEN 4KV	42262 FOX FARM RD	7/28/2022	ADDED POLE 10		34°14'58.91"	116°52'49.72"	OS		
233	8725BV	SHAY 34KV / LAKE 4KV	41856 Fox Farm Rd	7/6/2022	FAIL		34°15'09.85"	116°53'29.49"	OS		
234	10011BV	Shay		7/30/2022	REMEDIATE		34.153511, -116.505244				
235											
236	**AUGUST**										
237	11153BV	SHAY 34KV / INTERLAKEN 4KV	41930 Garstin Rd	8/5/2022	FAIL		34.24719772	-116.8866198	OS	**assesed**	20
238	13183BV	SHAY 34KV / INTERLAKEN 4KV	42149 W Big Bear Blvd	8/2/2022	**Pass**		34.24907792	-116.8821636	OS		
239	8970BV	SHAY 34KV / INTERLAKEN 4KV	42175 Fox Farm Rd	8/2/2022	FAIL		34.24929518	-116.8814934	OS		
240	8972BV	INTERLAKEN 4KV	42175 Fox Farm Rd	8/3/2022	FAIL		34.24911194	-116.881965	OS		
241	8971BV	SHAY 34KV / INTERLAKEN 4KV	42175 Fox Farm Rd	8/2/2022	FAIL		34.24911194	-116.881965	OS		
242	11151BV	SHAY 34KV / INTERLAKEN 4KV	41967 Fox Farm Rd	8/5/2022	FAIL		34.24775872	-116.8852108	OS		
243	11152BV	SHAY 34KV / INTERLAKEN 4KV	41939 Fox Farm Rd	8/4/2022	FAIL		34.24735377	-116.8866686	OS		
244	4143BV	SHAY 34KV/GEORGIA 4KV		8/1/2022	FAIL				OS		
245		SHAY 34KV / INTERLARKEN 4KV		8/2/2022	ADDED POLE 11				OS		
246		INTERLAKEN 4KV		8/3/2022	ADDED POLE 12		34°14'56.08"	116°52'56.71"	OS		
247		SHAY 34KV/GEORGIA 4KV	40985 PENNSYLVANIA AVE	8/5/2022	15353BV		34.239175	-116.908614	OS		
248		SHAY 34KV/GEORGIA 4KV	41058 PENNSYLVANIA AVE	8/5/2022	15357BV		34.239242	-116.906331	OS		
249		INTERLAKEN 4KV	41909 SWITZERLAND DR	8/5/2022	ADDED POLE 4_ED		34.237297	-116.888336	OS		
250		INTERLAKEN 4KV	41910 SWITZERLAND DR	8/5/2022	ADDED POLE 5_ED		34.236978	-116.888336	OS		
251		SHAY 34KV / INTERLARKEN 4KV		8/4/2022	ADDED POLE 15		34°14'50.08"	116°53'12.63"	OS		
252		SHAY 34KV / INTERLARKEN 4KV		8/5/2022	ADDED POLE 14		34°14'50.25"	116°53'14.54"	OS		
253		SHAY 34KV / INTERLARKEN 4KV		8/5/2022	ADDED POLE 13		34°14'48.96"	116°53'48.96"	OS		
254		SHAY 34KV / INTERLARKEN 4KV		8/5/2022	ADDED POLE 16		34°14'51.21"	116°53'10.90"	OS		
255	12939BV	LAGONITA	40472 BIG BEAR BLVD	8/4/2022	**PASS**	60400117	34.24232326	-116.9194682	SD		
256	11451BV	LAGONITA	40472 BIG BEAR BLVD	8/11/2022	**PASS**	60400117	34.24251105	-116.9192783	SD		
257	9996BV	Castle Glen 4kV		8/3/2022	Remediation	60400008	34 15 27.95	-1165107.18	OS		
258	9997BV	Country Club 4kV		8/3/2022	Remediation	60400008	34 15 27.96	-1165105.68	OS		
259	9994BV	Country Club 4kV		8/3/2022	Remediation	60400008	34 15 27.91	-1165112.71	OS		
260	13036BV	Castle Glen 4kV		8/2/2022	Remediation	60400008	34 15 28.08	-1165153	OS		
261	9986BV	Country Club 4kV		8/1/2022	Remediation	60400008	34 15 28.37	-1165126.62			
262	10001BV	Paradise 4kV		8/20/2022	Remediation	60400008	34 15 37.73	-1165103.19			
263	10002BV	Paradise 4kV		8/20/2022	Remediation	60400008	34 15 33.06	-1165103.18			
264	9990BV			8/20/2022	Remediation	60400008	34 15 27.86	-1165120			
265	9993BV	Country Club 4kV		8/20/2022	Remediation	60400008	34 15 27.89	-1165114.65			
266	9992BV	Country Club 4kV		8/20/2022	Remediation	60400008	34 15 27.89	-1165116.22			
267	9991BV	Country Club 4kV		8/20/2022	Remediation	60400008	34 15 27.86	-1165118.21			

268	9995BV	Country Club 4kV		8/20/2022	Remediation	60400008	34 15 27.95	-1165110.79			
269	9973BV	Castle Glen 4kV		8/22/2022	Remediation	60400008	34 15 28.00	-1165146.61			
270	9972BV	Castle Glen 4kV		8/25/2022	Remediation	60400008	34 15 28.02	-1165148.37			
271	13198BV	Shay		8/25/2022	Remediation	60400008	34 15 12.33	w-116 51 59.05			
272	12930BV	Shay		8/25/2022	Remediation	60400008	34 15 03.04	w-116 51 58.08			
273	12929BV	Shay		8/25/2022	Remediation	60400008	34 15 01.12	w-116 51 58.10			
274	14556BV	Shay		8/25/2022	Remediation	60400008	34 14 49.54	w-116 51 58.25			
275											
276	**SEPTEMBER**										
277	8787BV	ERWIN 4KV	1300 HATCHERY RD	9/8/2022	FAIL		34.23617158	-116.8052311	OS	assesed	53
278	14082BV	ERWIN 4KV	2191 GLENCOVE DR	9/20/2022	**Pass**		34.23608716	-116.8006669	OS		
279	14085BV	ERWIN 4KV	1310 HEMLOCK LN	9/21/2022	**Pass**		34.23615077	-116.798816	OS		
280	8788BV	ERWIN 4KV	1251 HATCHERY RD	9/21/2022	FAIL		34.23597243	-116.8050676	OS		
281	13530BV	ERWIN 4KV	1300 HATCHERY RD	9/8/2022	**Pass**		34.23597243	-116.8050676	OS		
282	14084BV	ERWIN 4KV	2201 GLENCOVE DR	9/21/2022	**Pass**		34.23619446	-116.79941	OS		
283	13540BV	ERWIN 4KV	2191 GLENCOVE DR	9/21/2022	**Pass**		34.23622984	-116.7998476	OS		
284	14083BV	ERWIN 4KV	2201 GELCOVE DR	9/21/2022	**Pass**		34.23602107	-116.8001378	OS		
285	14081BV	ERWIN 4KV	2200 GLENCOVE DR	9/20/2022	**Pass**		34.23623621	-116.8014638	OS		
286	13539BV	ERWIN 4KV	2191 GLENCOVE DR	9/20/2022	FAIL		34.23623621	-116.8014638	OS		
287	13538BV	ERWIN 4KV	2191 GLENCOVE DR	9/20/2022	**Pass**		34.2362318	-116.802513	OS		
288	11237BV	ERWIN 4KV	194 S WILLOW LN	9/22/2022	FAIL		34.23686524	-116.8006775	OS		
289	13544BV	ERWIN 4KV	1191 WILLOW LN	9/22/2022	**Pass**		34.23715264	-116.8005697	OS		
290	13575BV	ERWIN 4KV	1191 WIILOW LN	9/23/2022	**Pass**		34.23772028	-116.8006958	OS		
291	13576BV	ERWIN 4KV	1161 WILLOW LN	9/23/2022	**Pass**		34.2381002	-116.800662	OS		
292	13577BV	ERWIN 4KV	1155 WILLOW LN	9/23/2022	**Pass**		34.23859265	-116.8008205	OS		
293	13578BV	ERWIN 4KV	1151 WILLOW LN	9/23/2022	**Pass**		34.23915636	-116.8007592	OS		
294	10234BV	ERWIN 4KV	1141 WILLOW LN	9/26/2022	FAIL		34.23981562	-116.8006226	OS		
295	13684BV	ERWIN 4KV	1135 WILLOW LN	9/26/2022	**Pass**		34.24011852	-116.800651	OS		
296	10204BV	ERWIN 4KV	1135 WILLOW LN	9/27/2022	FAIL		34.24051998	-116.8006372	OS		
297	13680BV	ERWIN 4KV	1116 WILLOW LN	9/27/2022	**Pass**		34.24100184	-116.8005955	OS		
298	9840BV	ERWIN 4KV	2191 GLENCOVE DR	9/22/2022	FAIL		34°14'12.50"	-116°48'03.03"	OS		
299	10220BV	ERWIN 4KV	1124 WILLOW LN	9/27/2022	FAIL		34°14'26.03"	116°48'01.73"	OS		
300	13663BV	ERWIN 4KV	960 WILLOW LN	9/28/2022	**Pass**		34°14'37.39"	116°48'02.30"	OS		
301	13678BV	ERWIN 4KV	2190 STATE LN	9/27/2022	**Pass**		34.24127499	-116.8006112	OS		
302	13677BV	ERWIN 4KV	2190 STATE LN	9/27/2022	**Pass**		34.24250325	-116.8006105	OS		
303	13676BV	ERWIN 4KV	2190 STATE LN	9/27/2022	**Pass**		34.24250325	-116.8006105	OS		
304	7026BV	ERWIN 4KV	2190 STATE LN	9/27/2022	FAIL		34.24286825	-116.8006243	OS		
305	7024BV	ERWIN 4KV	998 WILLOW LN	9/28/2022	**Pass**		34.24328348	-116.8006975	OS		
306	13663BV	ERWIN 4KV	960 WILLOW LN	9/28/2022	**Pass**		34.24328348	-116.8006975	OS		
307	7025BV	ERWIN 4KV	2190 STATE LN	9/28/2022	FAIL		34.2430591	-116.8007709	OS		
308	13679BV	ERWIN 4KV	1100 WILLOW LN	9/27/2022	**Pass**		34.24133186	-116.8006057	OS		
309	13664BV	ERWIN 4KV	2191 STATE LN	9/28/2022	**Pass**		34.2438052	-116.8006328	OS		
310	12502BV	ERWIN 4KV	1300 HATCHERY RD	9/21/2022	FAIL		34°14'09.01"	116°48'18.25"	OS		
311	13644BV	ERWIN 4KV	2184 2ND LN	9/28/2022	**Pass**		34.24391457	-116.801331	OS		
312	6950BV	ERWIN 4KV	2176 2ND LN	9/29/2022	FAIL		34.24396295	-116.8018341	OS		

313	13646BV	ERWIN 4KV	2164 2ND LN	9/29/2022	Pass		34.24403184	-116.802451	OS		
314	13647BV	ERWIN 4KV	966 CENTRAL LN	9/29/2022	Pass		34.24407455	-116.8028875	OS		
315	8672BV	ERWIN 4KV	2134 2ND LN	9/29/2022	FAIL		34.24408515	-116.8032957	OS		
316	8673BV	ERWIN 4KV	21334 2ND LN	9/30/2022	FAIL		34.24411676	-116.8036638	OS		
317	9013BV	ERWIN 4KV	2124 2ND LN	9/30/2022	Pass		34.24411365	-116.8040031	OS		
318	14498BV	ERWIN 4KV	2108 2ND LN	9/30/2022	Pass		34.2440022	-116.8046816	OS		
319	14488BV	ERWIN 4KV	2104 2ND LN	9/30/2022	Pass		34.24413875	-116.8048346	OS		
320	14489BV	ERWIN 4KV	2088 2ND LN	9/30/2022	Pass		34.24406221	-116.8055725	OS		
321	7743BV	ERWIN 4KV	2208 MANZANITA AVE	9/26/2022	FAIL		34°14'23.79"	116°48'00.10"	OS		
322	6427BV	FAWNSKIN	1134 Fawnskin	9/26/2022	Remediation		34.2686540, -116.9395254		IZ		
323	6753BV	BEAR CITY	1117 Nana	9/26/2022	Remediation		34.2706631,-116.8519878		IZ		
324	31753CIT	BEAR CITY	397 Curly	9/26/2022	Remediation		34.2707342,-116.8515773		IZ		
325	4166BV	BEAR CITY	337 Curly	9/26/2022	Remediation		34.2707512,-116.8502590		IZ		
326	6458BV	BEAR CITY	1106 Rocky Mtn	9/7/2022	FAIL		34.2659990, -116.8650997		IZ		
327	6459BV	BEAR CITY	1130 Rocky Mtn	9/7/2022	FAIL		34.2659927, -116.8655523		IZ		
328	6457BV	BEAR CITY	1082 Rocky Mtn	9/8/2022	FAIL		34.2660189, -116.8646479		IZ		
329	6456BV	BEAR CITY	1074 Rocky Mtn	9/8/2022	FAIL		34.2660397, -116.8642226		IZ		
330	6483BV	BEAR CITY	1014 Mt Whitney	9/8/2022	FAIL		34.2664476, -116.8642240		IZ		
331	35802CIT	BEAR CITY	897 Sierra	9/21/2022	Pass		34.2655822, -116.8459519		IZ		
332	13833BV	LAGUNITA	800 Wildrose	9/22/2022	Pass		34.2382502, -116.9217972		IZ		
333	5577BV	GOLDMINE	781 Elm	9/27/2022	FAIL		34.2381215, -116.8744630		IZ		
334											
335	**OCTOBER**										
336	13482BV	ERWIN 4KV	2064 2ND LN	10/11/2022	Pass		34.2443781	-116.8066281	OS	assesed	81
337	13566BV	ERWIN 4KV	992 EAGLES NEST CT	10/11/2022	Pass		34.24426577	-116.8089296	OS		
338	13454BV	ERWIN 4KV	701 WOODLAND DR	10/13/2022	Pass		34.24881688	-116.8063256	OS		
339	13466BV	ERWIN 4KV	2066 5TH LN	10/12/2022	Pass		34.24550799	-116.8064359	OS		
340	13657BV	ERWIN 4KV	870 WILLOW LN	10/7/2022	Pass		34.24557393	-116.800693	OS		
341	13661BV	ERWIN 4KV	944 WILLOW LN	10/13/2022	FAIL		34.24415817	-116.8008304	OS		
342	12330BV	ERWIN 4KV	2038 STATE LN	10/11/2022	FAIL		34.2441386	-116.8086645	OS		
343	12883BV	ERWIN 4KV	2038 STATE LN	10/11/2022	Pass		34.24420701	-116.8081735	OS		
344	13660BV	ERWIN 4KV	949 WILLOW LN	10/7/2022	Pass		34.24436567	-116.8006337	OS		
345	13659BV	ERWIN 4KV	2191 3RD LN	10/7/2022	Pass		34.24461053	-116.800638	OS		
346	13658BV	ERWIN 4KV	909 FIR LN	10/7/2022	Pass		34.24496426	-116.8007972	OS		
347	13662BV	ERWIN 4KV	949 WILLOW LN	10/14/2022	FAIL		34.24391457	-116.801331	OS		
348	9482BV	ERWIN 4KV	2082 2ND LN	10/10/2022	Pass		34.2440554	-116.8060685	OS		
349	13468BV	ERWIN 4KV	927 3RD LN	10/11/2022	Pass		34.24418142	-116.8061896	OS		
350	6043BV	ERWIN 4KV	2064 4TH LN	10/12/2022	FAIL		34.24498861	-116.8062684	OS		
351	13465BV	ERWIN 4KV	2066 6TH LN	10/12/2022	Pass		34.24593063	-116.806302	OS		
352	13462BV	ERWIN 4KV	2078 7TH LN	10/12/2022	Pass		34.24649955	-116.8062672	OS		
353	13457BV	ERWIN 4KV	785 WOODLAND DR	10/12/2022	FAIL		34.24718954	-116.8062865	OS		
354	6048BV	ERWIN 4KV	2074 9TH LN	10/12/2022	FAIL		34.24763823	-116.8062753	OS		
355	12171BV	ERWIN 4KV	2075 10TH LN	10/12/2022	Pass		34.24805693	-116.8062956	OS		
356	13400BV	ERWIN 4KV	2088 5TH LN	10/10/2022	Pass		34.24536733	-116.8055535	OS		
357	13401BV	ERWIN 4KV	866 LAKEWOOD DR	10/9/2022	FAIL		34.24540581	-116.805052	OS		
358	13402BV	ERWIN 4KV	2106 5TH LN	10/9/2022	Pass		34.24545247	-116.8046873	OS		

359	13403BV	ERWIN 4KV	2110 5TH LN	10/9/2022	Pass		34.24550433	-116.804278	OS	
360	13414BV	ERWIN 4KV	2126 5TH LN	10/8/2022	Pass		34.2455399	-116.8039722	OS	
361	13415BV	ERWIN 4KV	2135 5TH LN	10/8/2022	Pass		34.24562763	-116.803313	OS	
362	13418BV	ERWIN 4KV	2150 5TH LN	10/8/2022	Pass		34.24562763	-116.803313	OS	
363	13419BV	ERWIN 4KV	2156 5TH LN	10/8/2022	Pass		34.24550801	-116.8022448	OS	
364	13421BV	ERWIN 4KV	2128 5TH LN	10/7/2022	Pass		34.24557224	-116.8012535	OS	
365	13709BV	ERWIN 4KV	2056 2ND LN	10/11/2022	Pass		34.243986	-116.8069647	OS	
366	13420BV	ERWIN 4KV	2176 5TH LN	10/8/2022	Pass		34.24554601	-116.8017277	OS	
367	6038BV	ERWIN 4KV	2053 2ND LN	10/11/2022	FAIL		34.24406456	-116.8073986	OS	
368	14194BV	ERWIN 4KV	2076 5TH LN	10/10/2022	Pass		34°14'43.61"	116°48'21.32"	OS	
369	14750BV	SUNRISE 4KV		10/5/2022	Pass		34.25017126	-116.825264	OS	
370	10953BV	SUNRISE 4KV	152 MAPLE LN	10/5/2022	FAIL		34.24972892	-116.8252408	OS	
371	10357BV	SUNRISE 4KV	196 MAPLE LN	10/5/2022	Pass		34.24922709	-116.8252327	OS	
372	9125BV	SUNRISE 4KV	204 MAPLE LN	10/5/2022	FAIL		34.24890724	-116.8252708	OS	
373	11088BV	SUNRISE 4KV	222 MAPLE LN	10/5/2022	FAIL		34.24818878	-116.8253145	OS	
374	11087BV	SUNRISE 4KV	248 MAPLE LN	10/5/2022	Pass		34.24794723	-116.8253049	OS	
375	11086BV	SUNRISE 4KV	256 MAPLE LN	10/5/2022	FAIL		34.24753328	-116.8253531	OS	
376	11123BV	SUNRISE 4KV	298 MAPLE LN	10/5/2022	FAIL		34.24722776	-116.8252993	OS	
377	11085BV	SUNRISE 4KV	11085 MAPLE LN	10/5/2022	FAIL		34.24679499	-116.8252194	OS	
378	11084BV	SUNRISE 4KV	336 MAPLE LN	10/5/2022	FAIL		34.24624131	-116.825246	OS	
379	11027BV	SUNRISE 4KV	360 MAPLE LN	10/5/2022	FAIL		34.24563464	-116.8252857	OS	
380	11083BV	SUNRISE 4KV	388 MAPLE LN	10/5/2022	FAIL		34.24516983	-116.8252621	OS	
381	11082BV	SUNRISE 4KV	426 MAPLE LN	10/5/2022	FAIL		34.24477625	-116.8252031	OS	
382	9769BV	SUNRISE 4KV	458 MAPLE LN	10/5/2022	FAIL		34.24421722	-116.8251843	OS	
383	10148BV	SUNRISE 4KV	466 MAPLE	10/5/2022	FAIL		34.24389243	-116.8251802	OS	
384	14529BV	SUNRISE 4KV	498 MAPPLE	10/5/2022	Pass		34.24345331	-116.8251771	OS	
385	CTC12102	SUNRISE 4KV	44761 BARTON LN	10/5/2022	FAIL		34.24311714	-116.825114	OS	
386	11122BV	SUNRISE 4KV		10/5/2022	FAIL		34.24311714	-116.825114	OS	
387	9585BV	SUNRISE 4KV		10/5/2022	FAIL		34.24331447	-116.8257321	OS	
388	3764BV	SUNRISE 4KV		10/5/2022	FAIL		34.24331447	-116.8257321	OS	
389	11081BV	SUNRISE 4KV		10/5/2022	Pass		34.24333353	-116.8262621	OS	
390	37496CIT	SUNRISE 4KV		10/5/2022	FAIL		34.2433623	-116.8266394	OS	
391	9586BV	SUNRISE 4KV		10/5/2022	FAIL		34.24314665	-116.8271598	OS	
392	37471CIT	SUNRISE 4KV	504 HIGHLAND	10/5/2022	FAIL		34.24317446	-116.8274744	OS	
393	11080BV	SUNRISE 4KV	44654 BARTON LN	10/5/2022	FAIL		34.24313087	-116.8278966	OS	
394	12674BV	SUNRISE 4KV	4464 BARTON LN	10/5/2022	Pass		34.24315457	-116.8283156	OS	
395	9587BV	SUNRISE 4KV	44634 BARTON LN	10/5/2022	FAIL		34.24321375	-116.8286945	OS	
396	9548BV	SUNRISE 4KV	44598 BARTON LN	10/5/2022	Pass		34.2431198	-116.8290546	OS	
397	11079BV	SUNRISE 4KV	44598 BARTON LN	10/5/2022	Pass		34.24313863	-116.8294727	OS	
398	60583CTC	SUNSET 4KV	510 WABASH LN	10/5/2022	Pass		34.24318395	-116.8298279	OS	
399	7509BV	SUNSET 4KV	513 RIVERSIDE DR	10/6/2022	FAIL		34°14'34.37"	116°50'02.76"	OS	
400	11078BV	SUNSET 4KV	501 SUNSET LN	10/5/2022	FAIL		34.24317342	-116.8306974	OS	
401	15145BV	SUNSET 4KV	502 SUNSET LN	10/5/2022	Pass		34.24316337	-116.8311627	OS	
402	9588BV	SUNSET 4KV	495 VISTA LN	10/5/2022	FAIL		34.24311365	-116.8317828	OS	
403	63030CTC	SUNSET 4KV	496 VISTA LN	10/6/2022	FAIL		34.24311365	-116.8317828	OS	

Pole # is incorrect on spreadsheet. Pole # should be CTC1210223

404	4577BV	SUNSET 4KV	492 IMPERIAL AVE	10/6/2022	FAIL		34.24305681	-116.8325787	OS		
405	60582CIT	SUNSET 4KV	510 LOS ANGELES AVE	10/6/2022	FAIL		34.24312059	-116.8329154	OS		
406	6084BV	SUNSET 4KV	494 LOS ANGELES AVE	10/6/2022	FAIL		34.24305293	-116.8334539	OS		
407	4039BV	SUNSET 4KV	495 LOS ANGELES	10/6/2022	FAIL		34.24305293	-116.8334539	OS		
408	10169BV	SUNSET 4KV	44398 BARTON LN	10/6/2022	FAIL		34.24307521	-116.8339784	OS		
409	7506BV	SUNSET 4KV	497 RIVERSIDE DR	10/6/2022	FAIL		34.24305589	-116.8343912	OS		
410	4040BV	SUNSET 4KV	490 RIVERSIDE DR	10/6/2022	FAIL		34.24308181	-116.8351478	OS		
411	37160CIT	SUNSET 4KV	44348 BARTON LN	10/6/2022	FAIL		34.24304247	-116.8357018	OS		
412	10328BV	SUNSET 4KV	44312 BARTON LN	10/6/2022	FAIL		34.24305778	-116.8358962	OS		
413	8821BV	SUNSET 4KV	496 ORANGE AVE	10/6/2022	FAIL		34.2430622	-116.8365521	OS		
414	5025BV	SUNSET 4KV	44248 BARTON LN	10/6/2022	FAIL		34.24304197	-116.8369427	OS		
415	5026BV	SUNSET 4KV	498 INYO AVE	10/6/2022	FAIL		34.24296508	-116.8373207	OS		
416	12817BV	SUNSET 4KV	492 SANTA BARBARA DR	10/6/2022	FAIL		34°14'34.93"	116°50'09.40"	OS		
417											
418	**NOVEMBER**										
419			No Data reported								
420											
421	**DECEMBER**										
422	7302BV	Clubview	1248 Minton	12/15/2022	FAIL		34.2390412,-116.8548749		IZ	assesed	6
423	72221BV	Clubview	1212 Minton	12/15/2022	**Pass**		34.2398760, -116.8556294		IZ		
424	7301BV	Clubview	1236 Minton	12/15/2022	**Pass**		34.2394023, -116.8551792		IZ		
425	6106BV	Clubview	43474 Sheephorn	12/15/2022	FAIL		34.2358328,-116.8542588		IZ		
426	5669BV	Clubview	43486 Sheephorn	12/15/2022	**Pass**		34.2361804,-116.8544608		IZ		
427	10259BV	Lagunitaz	160 Round	12/15/2022	**Pass**		34.2519495,-116.9395755		IZ		

7.3.5.6 Quality Control of Inspections

#	VM Records
1	Trim Map 2022 Q1 report.pdf
2	Trim Map 2022 Q2 report.pdf
3	Trim Map 2022 Q3 report.pdf
4	Trim Map 2022 Q4 report.pdf
5	Vegetation Management Quarterly Update Q1 2022.docx
6	Vegetation Management Quarterly Update Q2 2022.docx
7	Vegetation Management Quarterly Update Q3 2022.docx
8	Vegetation Management Quarterly Update Q4 2022.docx
9	VM audit 22.docx.pdf

***Note: BVES has provided each of these records in the "VM Audit.zip" file.**

7.3.5.13 Quality Control of Inspections

BVES Vegetation Management QA/QC

#	Inspector	Location	Date
1	Paul Marconi	Zaca Rd bet 6544BV & 14001BV, BBC	2/3/2022
2	Anthony	Pine Ln bet 12060BV & 63137CTC, Sugarloaf	2/7/2022
3	Anthony	Pine Ln bet 5932BV & 6641 BV, Sugarloaf	2/7/2022
4	Jon Pecchia	Pine Ln bet 6101BV & 7141BV, Sugarloaf	2/11/2022
5	Jared Hennen	Barton Ln bet 3764BV & 12674 BV, Sugarloaf	2/16/2022
6	Jared Hennen	Highland Ave bet 11440BV & 37471CIT, Sugarloaf	2/16/2022
7	Shane Smith	Jensen Dr bet14013BV & 14024BV, BBC	2/17/2022
8	Shane Smith	Willow Ln bet 7034BV & 9547BV, Erwin Lk	2/17/2022
9	Jeff Barber	Shady Ln bet 10205BV & 10206BV, Erwin Lake	3/10/2022
10	Shane Smith	Leonard Lane bet 5380BV & 11499BV, Sugarloaf	3/11/2022
11	Jared Hennen	Baldwin Lake Rd bet14096BV & 14759BV, Baldwin Lake	3/16/2022
12	Jared Hennen	Woodland Dr bet 8344BV & 8345BV, Erwin Lake	3/16/2022
13	Shane Smith	Baldwin Lake Rd. bet 10496BV & 14759BV, Baldwin Lake	3/28/2022
14	Shane Smith	Hill Ave bet 5211BV & 8707BV, BBC	3/30/2022
15	RickVillines	Fern Ln bet 7041BV & 9001BV, Erwin Lake	3/31/2022
16	RickVillines	Mariposa Ln bet 7767BV & 7773BV, Sugarloaf	3/31/2022
17	RickVillines	Fox Ln bet 8766BV & 13704BV, Erwin Lake	4/1/2022
18	Tom Chou	Baldwin Ln bet 9617BV & 9618BV, Sugarloaf	4/1/2022
19	Tom Chou	Mitchell Ln bet 13706BV & 14176BV, Erwin Lake	4/1/2022
20	Tom Chou	Victoria Ln bet 11719BV & 11720, Sugarloaf	4/1/2022
21	Paul Marconi	Highland Ave bet 6073BV & 8476BV, Sugarloaf	4/12/2022
22	Paul Marconi	S Maple Ln bet 9776BV & 9778BV, Sugarloaf	4/12/2022
23	Shane Smith	Falling Springs Rd bet 9730BV & 9934BV, Baldwin Lake	4/12/2022
24	Shane Smith	Hill Ave bet 5211BV & 5214BV, BBC	4/12/2022
25	Jared Hennen	Manzanita bet 11123BV & 12057BV, Sugarloaf	4/20/2022
26	Jared Hennen	Pine Lane bet 5930BV & 11728BV, Sugarloaf	4/20/2022
27	RickVillines	Falling Springs Rd bet 9730BV & 9934BV, Baldwin Lake	4/25/2022
28	RickVillines	Elysian Blvd bet 3761BV & 23965CIT, BBC	5/11/2022
29	Jared Hennen	Hill Ave bet 6373BV & 6377BV, BBC	5/12/2022
30	Tom Chou	Maltby Blvd bet 10985BV & 10995BV, BBC	5/13/2022
31	Jared Hennen	Hill Ave bet 6370BV & 6373BV, BBC	5/20/2022
32	Jared Hennen	Skyview Dr bet 37076CIT & 37077CIT, Erwin Lake	5/20/2022
33	Paul Marconi	Myrtle Ave bet 11008BV & 35833CIT, BBC	6/2/2022
34	Jared Hennen	W Meadow bet 4888BV & 4928BV, BBC	6/9/2022
35	RickVillines	Shakespear Ln bet 10041BV & 35881CIT, BBC	6/14/2022
36	Shane Smith	Whispering Forest Dr bet 7820BV & 7822BV, BBC	6/15/2022
37	Jeff Barber	Golden Rod Ave bet 9686BV & 11102BV, Baldwin Lk	6/17/2022
38	Shane Smith	Angeles Blvd bet 11025BV & 11026BV, BBC	6/21/2022
39	Shane Smith	Elysian Blvd bet 1691BV & 23966CIT, BBC	6/21/2022
40	Jared Hennen	Bernhardt Ln Bet P-7974 & 35873CIT, BBC	6/22/2022
41	Jon Pecchia	E Mountain View Ln bet 10854BV & 12075BV, BBC	6/28/2022
42	Jon Pecchia	Cedar Lake Rd at 5134BV, BBL	6/30/2022

43	RickVillines	Bluebill Dr bet 6448BV & 10602BV, BBC	6/30/2022
44	Jared Hennen	Eagle Mountain Dr, bet 7636BV & 7803BV, BBC	7/1/2022
45	Paul Marconi	Shay Rd bet 9073BV & 12447BV, Baldwin Lake	7/1/2022
46	Jeff Barber	Antelope Mountain bet 7634BV & 7635 BV, BBC	7/5/2022
47	Tom Chou	Green Mountain bet 7642BV & 7644BV, BBC	7/6/2022
48	Shane Smith	Eagle Mountain bet 7460BV & 7462BV, BBC	7/7/2022
49	Shane Smith	Shay Rd bet 12423BV & 12452BV, BBC	7/7/2022
50	Paul Marconi	Green Mountain Dr bet7639BV & 7649BV, BBC	7/8/2022
51	Jeff Barber	Bet 433 Catalina and 453 Catalina, BBL	7/11/2022
52	Tom Chou	Eagle Mountain bet 6474BV & 7475BV, BBC	7/15/2022
53	Tom Chou	Big Bear Blvd bet 13217BV & 13224, BBL	7/20/2022
54	Jeff Barber	Big Bear Blvd bet 13235BV & 13236, BBL	7/21/2022
55	Paul Marconi	Big Bear Blvd bet 11384BV & 13217BV, BBL	7/21/2022
56	Tom Chou	Big Bear Blvd bet 6387BV & 11384BV, BBL	7/26/2022
57	Paul Marconi	Big Bear Blvd bet 11120BV & 13242BV, BBLake	7/28/2022
58	Jon Pecchia	Big Bear Blvd Bet 13224BV & 13268BV, BBL	7/29/2022
59	Jon Pecchia	Eagle Mountain bet 7462BV & 7475BV, BBC	7/29/2022
60	Paul Marconi	McWhinney Ln bet 12219BV & 12216BV, BBL	7/29/2022
61	Tom Chou	Olympic Drive to Snowcrest Dr 12488BV, BBL	8/1/2022
62	Jeff Barber	Encino bet 42929 & 42965, Moonridge	8/2/2022
63	Paul Marconi	Big Bear Blvd bet 6387BV & 11384BV, BBL	8/3/2022
64	Rick Villines	Constellation bet Crystal Lake & Hauptstrausse	8/3/2022
65	Jeff Barber	Rocky Mountain Rd bet 6453BV & 6459BV, BBC	8/4/2022
66	Jeff Barber	Blue Water So of Aeroplane, BBC	8/4/2022
67	Jared Hennen	Big Bear Blvd bet 13236BV & 33144 CIT, BBL	8/11/2022
68	Jared Hennen	E Big Bear Blvd bet 11522BV & 11525V, BBC	8/11/2022
69	Shane Smith	Big Bear Blvd bet 11005BV & 12288BV, BBL	8/12/2022
70	Shane Smith	Menlo Dr. bet Sheephorn & Butte, Moonridge	8/12/2022
71	RickVillines	Big Bear Blvd bet 11005BV & 33144CIT, BBL	8/16/2022
72	Tom Chou	Bear Mountain Rd bet 6329BV & 6337BV, BBC	8/16/2022
73	Tom Chou	Minnelusa Rd bet 9565BV & 9572BV, North Shore	8/16/2022
74	Paul Marconi	W Big Bear Blvd bet P_5849 and 10381BV, BBC	8/17/2022
75	RickVillines	Division Dr near Sugarloaf Blvd, BBC	8/17/2022
76	RickVillines	E Big Bear Blvd bet 10342BV & 11067BV, BBC	8/17/2022
77	Jared Hennen	Forest bet 6975BV & 1210385CTC, BBL	9/7/2022
78	Shane Smith	Sherwood Blvd bet 11909BV & 11871BV, BBC	9/8/2022
79	Jared Hennen	W Big Bear Blvd bet 3420BV & 12342BV, BBC	9/8/2022
80	RickVillines	E BB Blvd bet 31680CIT & 31683CIT, BBC	9/16/2022
81	Tom Chou	E BB Blvd bet P7862 & 31685CIT, BBC	9/16/2022
82	Paul Marconi	Mountain Lane bet 8512BV & P5643, BBC	9/21/2022
83	Rick Vilinnes	E Big Bear Blvd bet 31584CIT & 35886CIT, BBC	09/30/2022
84	Shane Smith	E Big Bear Blvd bet 11520BV & 11522BV, BBC	09/30/2022
85	Rick Villines	Rainbow Blvd bet11393BV & 35781CIT, BBC	10/03/2022
86	Rick Villines	Rainbow Blvd bet 35775CIT & 35777CIT, BBC	10/03/2022
87	Jeff Barber	W BB Blvd bet 3406BV & 13030BV, BBC	10/19/2022
88	Jeff Barber	Lake View Tr bet 11390BV & 13070BV, BBC	10/19/2022
89	Jeff Barber	Cedar Dell bet 31521 CIT and 31558CIT, Fawnskin	10/19/2022

90	Paul Marconi	Rim of the World bet 11766BV & 23506CIT, Fawnskin	10/20/2022
91	Rick Villines	Rim of the World bet 11766BV & 23506CIT, Fawnskin	10/24/2022
92	Rick Villines	North Shore Blvd bet 12014BV & 13086BV, North Shore	10/24/2022
93	Tom Chou	Stanfield Cutoff bet 27583CIT & 12024BV, North Shore	10/26/2022
94	Tom Chou	London Ln bet 8288BV & 8290BV, BBC	10/26/2022
95	Paul Marconi	Bruin Trail-Racoon Dr bet 8585BV & 10216BV, Fawnskin	10/27/2022
96	Shane Smith	Hillen Dale Dr bet 7097BV & 8167BV, BBC	10/27/2022
97	Jared Hennen	Mount Verdi Rd bet 7418BV & 7420BV, BBC	10/27/2022
98	Shane Smith	Mountain Ln bet 7097BV & 8513BV, BBC	10/27/2022
99	Jared Hennen	Rainbow Blvd bet 13032BV & 35777CIT, BBC	10/27/2022
100	Jared Hennen	Rainbow Blvd bet 11393BV & 35777CIT, BBC	10/27/2022
101	Paul Marconi	Canyon Rd-Flicker Bet 5715BV & 5448BV, Fawnskin	11/02/2022
102	Rick Villines	Rim of the World bet 3882BV & 11494 BV, Fawnskin	11/07/2022
103	Rick Villines	Racoon Dr bet 3911BV & 31493CIT, Fawnskin	11/07/2022
104	Shane Smith	Bet 5242BV & 5246BV Off Rim of the World, Fawnskin	11/14/2022
105	Rick Villines	Bet 5247BV & 5251BV, Rim of the World, Fawnskiin	11/14/2022
106	Shane Smith	North Shore Dr bet 23382CIT & 31468CIT, Fawnskin	11/14/2022
107	Shane Smith	Hillside bet 8667BV & 10484BV, Fawnskin	11/14/2022
108	Shane Smith	Hillen Dale bet 8282BV & 8287BV, BBC	11/14/2022
109	Paul Marconi	Misc Sugarloaf bet Eucalyptus & Rinehart	11/15/2022
110	Rick Villines	Bet 5236 BV 7& 5242BV Off of Rim of the World, Fawnskin	11/22/2022
111	Jon Pecchia	Hillen Dale bet 8291BV & 8293 BV, BBC	11/28/2022
112	Jared Hennen	Hillside Ln bet 8667BV & 10484BV, Fawnskin	11/28/2022
113	Jon Pecchia	Misc bet Shakespeare and Rose Hill, BBC	11/28/2022
114	Jared Hennen	Mountain Ln bet 7097BV & 8513BV, BBC	11/28/2022
115	Jon Pecchia	Mountain Ln bet 7305BV & 8408BV, BBC	11/28/2022
116	Jared Hennen	Ridge Rd bet 8665BV & 8667BV, Fawnskin	11/28/2022
117	Jared Hennen	Ridge Rd bet 8662BV & 8665BV, Fawnskin	11/28/2022
118	Jared Hennen	North Shore Ln bet 5774BV & 10556BV, North Shore	11/28/2022
119	Jon Pecchia	Sugarloaf Blvd bet 9868BV & 9976BV, BBC	11/28/2022
120	Jeff Barber	Bet 6123BV & 6131BV Off Rim of the World, Fawnskin	11/29/2022
121	Jeff Barber	Piney Ridge Pl bet 9768BV & 10388BV, Fawnskin	11/29/2022
122	Jeff Barber	North Shore Dr bet 31466CIT & 10555BV, Fawnskin	11/29/2022
123	Jon Pecchia	Gold Mountain North of Fairway Blvd, BBC	11/29/2022
124	Jon Pecchia	Hillen Dale Dr bet 7097BV & 8167BV, BBC	11/29/2022
125	Tom Chou	bet 5252BV & 5256BV Off of Rim of the World, Fawnskin	12/05/2022
126	Tom Chou	Off of Rim of the World bet 5259 BV & 5264BV, Fawnskin	12/05/2022
127	Rick Villines	Mohawk Dr bet 11689BV & 11820BV, Fawnskin	12/14/2022
128	Jared Hennen	Jasper Dr bet P_2259 & 6003BV, Moonridge	12/19/2022
129	Jon Pecchia	Robinhood Blvd bet 5023BV & 31799CIT, BBC	12/19/2023
130	Jeff Barber	Chocktaw Dr bet 6909BV & 63127CIT, Fawnskin	12/21/2022
131	Shane Smith	Misc BBC bet Widgeon & Van Dusen	12/23/2022
132	Shane Smith	Garden Place bet 5954BV & 12130BV, Fawnskin	12/23/2022

7.3.9.2 & 7.3.10.1 Community Outreach Program

PLEASE SEE CLARIFICATONS TAB

Standard scripts used for the KBHR communications.

Examples of the content included in the Grizzly communications.

#	Qtr	Date Sent/posted	WMP/PSPS	Method Of Communication	Number of Engagements
1	1	January 1,2,4,6,7,8,10 (twice),13,14,15,17,18 (twice),20,22,25,29,30, 31, 2022	WMP	KBHR	**2022Quarter 1 = 55**
2	1	February 2,3,4,6 (twice),8,10,12 (twice),14,16 (twice), 18,20,21,22,24 (twice),26, 28 (twice), 2022			
3	1	March			
4	1	1,3,5 (twice),7,8,9,11,12,13,15,17 (twice),20,22,26 (twice), 29, (three times), 30, 2022			
5	1	January 2,3,4,5,6,7,9, (twice), 11,12,14,15,16,17,21,22,24,28 (twice), 30, 2022	PSPS (Emergency text)	KBHR	**2022 Quarter 1 = 67**
6	1	February 1 (twice), 3,5, (twice), 7,8,10,11,13,14,15,17,18,19,20,22,23,25,26,27			
7	1	March 1, 2,3,4,6,7,8,10 (twice), 12,14,15,16,18,19,20,21,22,23,24,25,26, (twice)28,31 (twice), 2022			
8	1	January 19-31, 2022	Reliability Meeting WMP/PSPS	Grizzly	**2022 Quarter 1 = 12**
9	1	February 1, 2022 to February 28, 2022	PSPS	Grizzly	**2022 Quarter 1 = 42**
10	1	March 9, to March 23, 2022			
11	1	January 3,10 (twice),18,24, 28, 2022	WMP	Facebook	**2022 Quarter 1 = 15**
12	1	February 7,15,23,28, 2022			
13	1	March 3,8,14,22,28, 2022			
14	1	January 6, 20, 25 (twice), 2022, February 2,8,16, 2022, March 8, 10, 2022	PSPS	Facebook	**2022 Quarter 1 = 9**
15	2	June 1,6,13,17,28, 2022	WMP	KBHR	5
16	2	June 4, 7, 12, 24, 2022	PSPS (Emergency Text)	KBHR	4
17	2	June 1, 2, 5, 8, 12, 19, 25, 2022	WMP	KBHR	7
18	2	May 1, 4, 8, 11, 14, 17, 20, 24, 27, 30, 2022	WMP	KBHR	10
19	2	May 1, 7, 11, 14, 16, 19, 23, 28, 30, 2022	PSPS (Emergency Text)	KBHR	9
20	2	May 2, 6, 10 ,14, 20, 23 ,25, 28, 2022	WMP	KBHR	8
21	2	April 2, 5, 9, 12, 15, 19, 26, 30, 2022	WMP	KBHR	8
22	2	April 4, 7, 10, 13, 18, 20, 23, 27, 30, 2022	PSPS (Emergency Text)	KBHR	9
23	2	April 1, 6, 8, 14, 18, 22, 24, 26, 28, 2022	WMP	KBHR	8
24	2	June 15-29, 2022(14 days)	WMP/PSPS Community brief meetir	Grizzly	14
25	2	May 11 - 25 (14 days)	PSPS (Emergency Text)	Grizzly	14
26	2	April 13- May 4 (21 days)	PSPS (Emergency Text)	Grizzly	21
27	2	June 30, 2022	WMP/PSPS	Community Breif	1
28	2	June 17, 2022	WMP/PSPS	Community Breif	1
29	2	April 4, 7, 11, 18, 25, 27, 29, 2022	WMP	Facebook	7
30	2	May 2, 3, 10 ,16, 23, 31, 2022	WMP	Facebook	6
31	2	May 19, 2022	PSPS	Facebook	1
32	2	June 3, 8, 22	PSPS	Facebook	3
33	2	June 6, 13, 17, 21, 27, 2022	WMP	Facebook	5
34	2	June 15, 16, 28, 30, 2022	WMP/PSPS	Facebook	4
35	3	Sept. (26)	WMP/PSPS	KBHR	26
36	3	Sept. (24)	Emergency text	KBHR	24
37	3	Sept (24)	WMP	KBHR	24
38	3	Aug (25)	Emergency text	KBHR	25
39	3	Aug (23)	WMP	KBHR	23

40	3	July (23)	WMP	KBHR	23
41	3	July (24)	Emergency text	KBHR	24
42	3	Aug 24th &5th (2)	tree trimming	Grizzly	2
43	3	Sept 15th&1st (2)	tree trimming	Grizzly	2
44	3	July (1)	Emergency text	Grizzly	1
45	3	2-Sep	PSPS	Facebook	1
46	3	22-Jul	PSPS (Emergency Text)	Facebook	1
47	4	Oct-22	WMP	KBHR	26
48	4	Oct-22	Emergency text	KBHR	26
49	4	Oct-22	Veg Management	KBHR	25
50	4	Nov-22	WMP	KBHR	14
51	4	Nov-22	Emergency text	KBHR	22
52	4	Nov-22	Veg Management	KBHR	16
53	4	Nov-22	Reliability meeting	KBHR	41
54	4	Dec-22	WMP	KBHR	14
55	4	Dec-22	Emergency text	KBHR	23
56	4	Dec-22	Veg Management	KBHR	15
57	4	Dec-22	Reliability meeting	KBHR	7
58	4	10/6/2022	Emergency text	Grizzly	1
59	4	10/13/2022	Tree Trimming	Grizzly	1
60	4	11/10/2022	WMP	Grizzly(NOW)	1
61	4	11/17/2022	Tree Trimming	Grizzly	1
62	4	11/23/2022	Emergency text	Grizzly	1
63	4	12/1/2022	Tree Trimming	Grizzly	1
64	4	12/15/2022	Emergency text	Grizzly	1
65	4	12/6/2022		Reliability meeting	1
66	4	10/1-12/31/2022	PSPS	Facebook	**6**
67	4	10/1-12/31/2022	WMP	Facebook	7