Bear Valley Electric Service, Inc.
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A Subsidiary of American States Water Company

Via Electronic Filing

March 31, 2022

Caroline Thomas Jacobs, Director
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RE: *Bear Valley Electric Service, Inc. 2021 Electrical Corporation Annual Report on Compliance Pursuant to Public Utilities Code Section 8386.3(c)(1).*

Director Thomas Jacobs,

This report serves as Bear Valley Electric Service, Inc.'s ("BVES's") response to Public Utilities Code ("PUC") §8386.3(c)(1), where an electrical corporation ("EC") must file with the Office of Energy Infrastructure Safety ("OEIS" or "Energy Safety")[1] annual reports addressing compliance of approved Wildfire Mitigation Plans ("WMPs") and associated activities during the prior calendar year. BVES submits this annual report addressing its compliance with the WMP during the 2021 calendar year.

If you have any questions or requests for additional information, please contact me at paul.marconi@bvesinc.com.

Sincerely,

/s/Paul Marconi

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

[1] Formerly known as the California Public Utilities Commission Wildfire Safety Division, which transitioned to the OEIS under the California Natural Resources Agency on July 1, 2021.

I. Background

The report is developed in accordance with the California Public Utilities Commission ("CPUC") Wildfire Safety Division ("WSD") *Compliance Operational Protocols* issued in November 2020 and modified in February 2021 under Resolution ("R.") WSD-012, which, among other items, directs the development of an Annual Report on Compliance ("ARC"). The *Compliance Operational Protocols* remain in effect under the regulatory authority of Energy Safety.

BVES submitted its 2021 WMP Update on March 5, 2021. In accordance with the May 4, 2021 *Revision Notice to Bear Valley Electric Service, Inc.* BVES submitted revisions to its 2021 WMP on June 3, 2021. After submission of the revised 2021 WMP, the OEIS brought forth several concerns for future remediation while addressing conditions for improvement when reviewing BVES's WMP for approval. BVES has made strides to rectify the issues identified in the Final Action Statement in Resolution R. WSD-022, issued on September 9, 2021. Additional directives are poised to be addressed within the 2022 WMP Update.

This EC ARC report serves to address PUC §8386.3(c)(1) addressing annual compliance for the 2021 calendar year. The italicized language in the sections below signal regulatory prompts for OEIS required content for this report.

II. Assessment of Initiative Risk Reduction

1.a) An assessment of whether the EC met the risk reduction intent by implementing all of their approved WMP initiatives, i.e., the degree to which initiative activities have reduced ignition probabilities;

1.a.i) If the EC fails to achieve the intended risk reduction, EC shall provide a detailed explanation of why and a reference to where associated corrective actions are incorporated into their most recently submitted WMP.

BVES focuses on implementing approved WMP initiatives that collectively reduce the probability of utility-caused ignitions, reduce the potential impact of wildfires on the BVES system, and mitigate the need to activate Public Safety Power Shutoff ("PSPS") events in the future. In 2021, BVES did not record any wildfire ignitions or PSPS events.

Risk reduction is measured through a variety of means including successful mitigation implementation, risk event tracking, and the modeling results of BVES's risk registry tools. While BVES is not required by the CPUC to develop either a Multi-Attribute Variable Function or Multi-Attribute Risk Score framework for Risk Assessment Mitigation Phase filings, BVES maintains a risk assessment toolkit to identify risk drivers and potential consequences of wildfire threat while gauging the success of mitigation initiatives.

BVES seeks to reduce risk on all circuits identified as "high risk" to reduce the prioritized circuit risk threshold. The intent is to further reduce the secondary risk category, "medium risk" circuits to bring all circuits into the low-risk range. The progress in this effort is demonstrated in Tables 1, 2, and 3 below.

Table 1: Risk Reduction Year over Year

Date	Risk (Per Fire Safety Matrix)
12/31/2019	115,230
12/31/2020	110,745
12/31/2021	90,710

Table 2: 2021 Estimated Reduction in Wildfire Risk by Circuit

Circuit	Substation	Wildfire Risk Group	Wildfire Risk Group	Wildfire Risk Group
		12/31/2021	12/31/2020	12/31/2019
Radford	SCE Feed	31215	30621	30521
Shay	SCE Feed	7103	13367	14230
Baldwin	SCE Feed	7606	7763	7185
Boulder	Village	1230	2951	3351
North Shore (Fawnskin)	Fawnskin	6721	7538	7518
Erwin Lake	Maltby	2006	3416	7401
Pioneer (Palomino)	Palomino	2426	5206	5706
Clubview	Moonridge	3655	4060	3460
Goldmine	Moonridge	4491	6659	5559
Paradise	Maltby	2894	3493	2754
Sunset	Maple	2533	3883	3583
Sunrise (Maple)	Maple	2217	2650	2650
Holcomb (Bear City)	Bear City	4205	4516	5916
Georgia	Pineknot	1280	2019	1919
Eagle	Pineknot	1813	2072	2072
Harnish (Village)	Village	793	585	385
Garstin	Meadow	1392	1750	2440
Lagonita	Village	1576	2323	2023
Interlaken	Meadow	1652	2475	3275
Castle Glen (Division)	Division	2365	2238	1982
Country Club	Division	709	845	984
Fox Farm	Meadow	0	0	0
Pump House (Lake)	Lake	202	287	287
Lift (Summit TOU)	Summit	627	28	28
Skyline (Summit Res)	Summit	0	0	0
Geronimo (Bear Mtn.)	Bear Mtn.	0	0	0
		90710	110745	115230

Table 3: Fire Safety Circuit Matrix Key

Wildfire Risk Groups	
High	≥3,000
Moderate	1201 to 2999
Low	≤1200

Tables 2 and 3, above, provide an estimation of the degree to which 2021 mitigation initiatives reduced wildfire risk at the circuit level. BVES has met its intent to reduce both the number of high-risk circuits and overall wildfire ignition risk.

A. Risk Assessment and Mapping

In 2021, the utility contracted services to enhance current risk maps and expand its capability to better predict fire conditions and behaviors. These models/maps were completed in 2021. BVES's complete modeling package accounts for ignition risk probability through climate-driven factors. BVES uses both its Fire Safety Circuit Matrix, prioritizing wildfire and PSPS risk, and its Risk Registry model, which evaluates enterprise risk to determine implementation of initiatives. The visuals present a guide, which influences future planning targeting areas of greatest risk. BVES's service territory is all within the High Fire Threat District ("HFTD") with the vast majority in Tier 2 and a small portion in Tier 3.

The principal risk model used by BVES for decision-making is the Fire Safety Circuit Matrix. This model determines circuit-level risk under current and planned mitigation activities intended to reduce ignition potential. The purpose of the Fire Safety Circuit Matrix model is to assist in determining a circuit-level risk that accounts for the current and planned mitigation activities that intend to reduce ignition potential.

The Fire Safety Circuit Matrix informs the planning period of the WMP considering changes to the risk profile as mitigations are executed over time. Outputs from the Risk Register and risk-based decision-making approach contributed significantly and are integrated in the model outputs of this matrix. BVES routinely updates this model on an annual basis as initiative targets are reviewed and revisited for the following year.

B. Situational Awareness and Forecasting

BVES installed its final two weather stations in 2021 as well as two additional cameras contributing to the HD ALERTWildfire Network. BVES now manages a total of 20 weather stations and ensures the HD ALERTWildfire Network has complete coverage of the BVES service area. The 15 cameras installed at key vantage locations provide full visibility into the Big Bear Valley.

Regarding weather events, no high-risk events occurred in 2021 and BVES's weather consultant met all expectations as anticipated. Over time, these tools and resources will provide enhanced conditional awareness into the BVES system and continue to reduce risk.

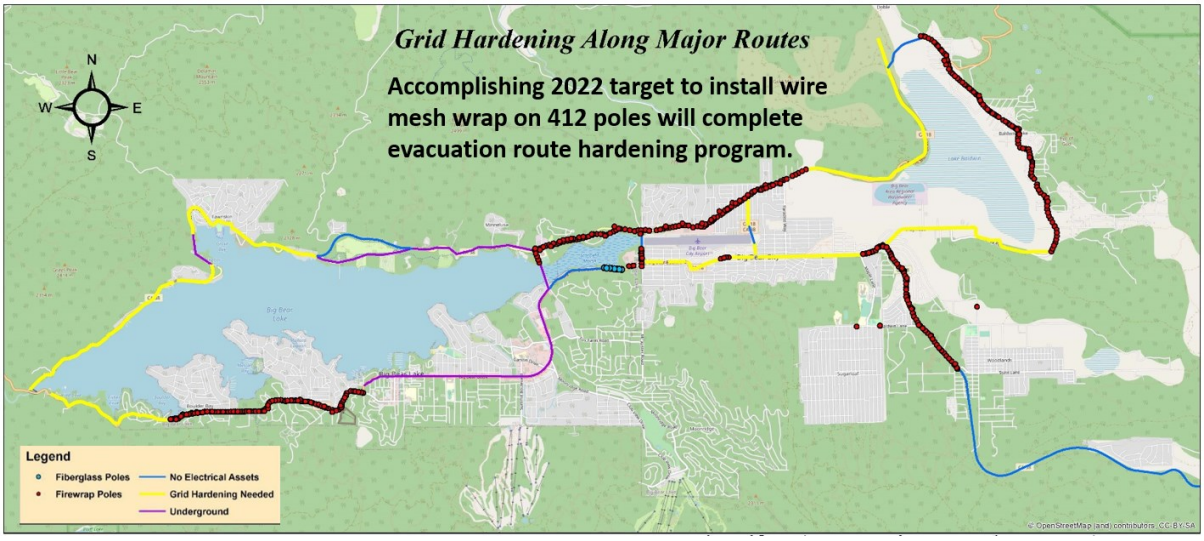
C. Grid Design and System Hardening

BVES completed its covered conductor pilot program (finished in 2020) and hardened 20 bare wire circuit miles over the current WMP three-year compliance term. Twelve circuit miles of hardening were implemented in 2021. BVES also completed technical and safety updates to the Palomino Substation. In 2021, BVES eliminated all 862-remaining expulsion (conventional) fuses from the system. Over the project term, a total of 3,114 expulsion fuses were replaced with 2,578 current limiting fuses and 536 electronic fuses. Expulsion fuses increase the potential for sparking and arcing on lines during fuse trip events and faults. Removing these devices will greatly reduce the potential for ignition on the system. In a similar risk reduction effort, BVES continues to identify and remove legacy tree attachments from its system having removed 74 attachments in 2021.

Additional highlights over the 2021 calendar year include BVES's completion of the Evacuation Route Pilot Program, which validated the installation and efficacy of wire mesh wrap, fire resistant composite pole, and lightweight steel poles, as well as initiating the Route Hardening Program. All main evacuation routes to Big Bear Lake will be hardened before the 2022 fire season.

The map below depicts grid hardening along major routes, including the evacuation route progress performed in 2021.

Figure 1: Evacuation Route Progress



D. Asset Management and Inspections

BVES completed service territory-wide inspections of its electrical assets using unmanned aerial vehicles ("UAVs") to capture photography/video by way of thermography equipment and contracted LiDAR surveys. An additional 78.56 circuit miles were surveyed under LiDAR inspections, bringing the total to 289.56 for 2021 above the targeted 211 circuit miles, which encompasses the whole service area. In 2021, BVES enhanced its quality check/quality assurance ("QA/QC") procedures into a single-source document for internal and third-party validation. A formalized mitigation program is underway for 2022.

BVES continues to execute its third-party ground patrols to verify activities and has employed a contracted forester to provide expert guidance during reviews and line activities. Risk reduction is measured through metrics of completed inspection targets and accounted risk events involving electrical equipment. Overtime, BVES anticipates downward trends in the number of inspection findings to generate cross-relational and quantifiable measurements.

E. Vegetation Management and Inspections

Program highlights for vegetation management ("VM") operations include BVES's annual detailed inspection activities, covering 54.9 circuit miles and exceeding its planned 50 miles of line inspected for the year. UAV and ground patrol inspections covered 211 circuit miles along with LiDAR inspections, as described under the subsection above. In 2020, vegetation density within a 24-foot corridor along all overhead ("OH") lines was 25.44 percent as measured by LiDAR surveys. In 2021, the vegetation density was 20.94 percent, indicating that the overall density of vegetation along BVES's lines have been reduced by 18 percent.

F. Grid Operations and Operating Protocols

BVES reports continued improvement for existing emergency preparedness and response program activities as well as working to further refine PSPS plan documentation, targeted for mid-2022. BVES has met ongoing compliance obligations with these programs and procedures. No ignition events or PSPS activations occurred in 2021. As mentioned previously, BVES continues to enhance its QA/QC procedures for electrical and vegetation inspection procedures.

G. Data Governance

BVES manages its data governance risk by addressing administrative gaps in recording and sorting all WMP related documentation and associated CPUC proceeding requirements that relate to WMP execution. BVES retains a consultant service to retain compliance materials to ensure information is stored accordingly. BVES has also worked with a geographic information system ("GIS") consultant to continue its compliance practices and digitize recordkeeping into a GIS compatible file for knowledge sharing and filing purposes.

H. Resource Allocation Methodology

For any personnel adequacy risks, BVES hires outside consultants to perform planned mitigation initiatives. BVES has met its targets to secure adequate resources in 2021. The utility also ensures qualified field employees and contractors perform duties as described within compliance criteria and with appropriate certifications.

I. Emergency Planning and Preparedness

BVES cannot effectively measure risk reduction based on historical events under this mitigation initiative category as no emergencies, PSPS events, or fire incidents have occurred in 2021. BVES remains adequately prepared in the event program protocols are required for activation.

J. Stakeholder Cooperation and Community Engagement

Community outreach metrics exceeded planned targets for 2021. 602 engagement materials were issued compared to planned targets of 360 units of notification. BVES is working to better account for access and functional needs customers within its GIS system and has issued self-identification notices to customers to enhance tracking practices.

II. Change Order and Operation Change Review

1.b) A full and complete listing of all change orders and any other operational changes, such as initiative location changes, made to WMP initiatives, with an explanation of why the changes were necessary, and an assessment of whether the changes achieved the same risk reduction intent;

BVES did not have a need to issue any change orders in the form of formal advice or notification letters and has not implemented any other operational changes to its WMP initiatives in 2021. There have been some deviations from expected initiative timelines, typically due to permitting and access issues with the United States Forest Service, but these do not necessitate any change orders.

No operational changes occurred during 2021. BVES has worked to satisfy resource allocation within the last three years.

III. WMP Initiative Spend Review

1.c) Descriptions of all planned WMP initiative spend vs actual WMP initiative spend and an explanation of any differentials between the planned and actual spends;

The descriptions of all planned WMP initiative spend vs actual WMP initiative spend along with an explanation of any differentials[2] between the planned and actual spends is detailed in Attachment A of this report.

IV. Initiative Impact on PSPS Thresholds

1.d) A description of whether the implementation of WMP initiatives changed the threshold(s) for triggering a PSPS event and/or reduced the frequency, scale, scope and duration of PSPS events;

The triggering threshold for a PSPS event in the BVES PSPS Plan has not changed based upon the implementation of WMP initiatives. In the future, BVES anticipates continued re-designation of high-risk areas to lower risk designations after significant implementation of WMP activities. As can be seen in the snapshot of the Fire Safety Circuit Matrix in Table 1Table 2, BVES continues to lower the risk level of some circuits through its wildfire mitigation efforts. As more of this becomes apparent, BVES will re-evaluate its PSPS trigger threshold.

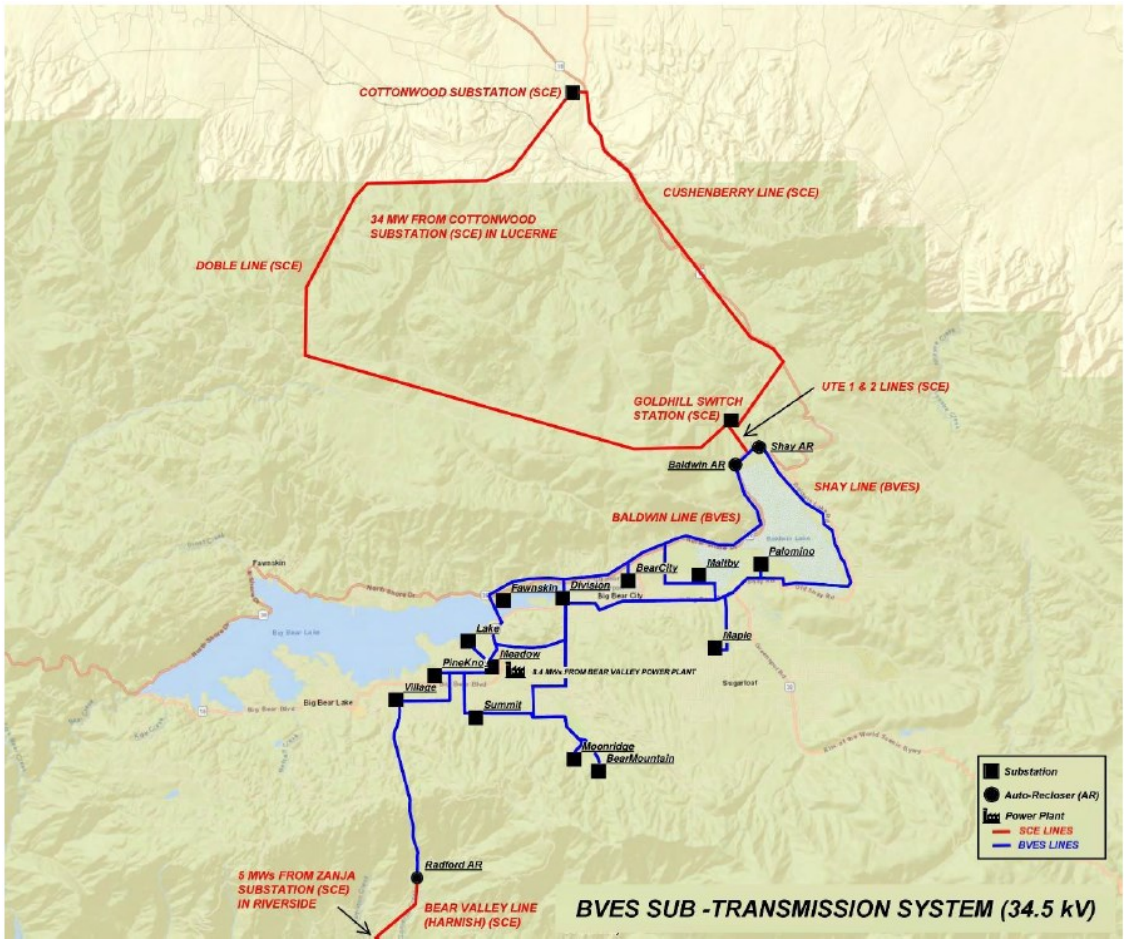
BVES has not experienced a wildfire or a PSPS event, nor has it had to facilitate an evacuation. Currently, the highest probability for triggering a PSPS event within the BVES

[2] BVES only lists the discrepancies if the difference between the actual and planned spend is greater than 20 percent (in either direction) in accordance with the accounting style of the Risk Spending Accountability Reports to the CPUC.

service territory is the loss of Southern California Edison ("SCE") energy imports to the BVES service area due to a SCE-directed PSPS of the SCE supply lines. BVES imports from SCE are subject to PSPS activation initiated by SCE. SCE may activate a proactive de-energization of these lines even if these circuits within the BVES service area and conditions do not meet BVES PSPS thresholds. The designation of SCE supply lines into the BVES service territory is illustrated in Figure 2.

To address the possibility of SCE-directed PSPS events, BVES proposes to construct an energy storage project of approximately 5 MW/20 MWh (four-hour) lithium-ion utility-grade battery serving the BVES service area. In conjunction with the existing Bear Valley Power Plant, BVES would be able to initially meet its energy demands during a potential supply drop from SCE. BVES will continue with project planning and evaluation of an energy storage facility within the BVES service territory, though, this project timeline has been extended due to siting delays.

Figure 2: BVES Supply Lines, Sources of Power and Sub-Transmission System



Although BVES has never implemented a PSPS, BVES is committed to reducing the scope, frequency, and duration of PSPS events and will only implement PSPS when the safety risk of imminent fire danger is greater than the impact of de-energization. During 2021, BVES engaged an engineering firm to develop a series of risk maps. The resulting maps and models show the overall ignition probability and estimated wildfire consequence along electric lines and equipment. BVES will investigate developing similar maps that include an estimation of wildfire and PSPS risk-reduction impact. The high-risk areas and customers that may become affected by a PSPS event are presented in Attachment B.

Currently, BVES does not estimate the reduced frequency, scale, scope, and duration of PSPS events as a result of implementation of wildfire mitigation programs because no such PSPS triggering conditions have been met. However, by their very nature, wildfire mitigation programs such as grid design and system hardening, and situational awareness and forecasting reduce the frequency, scale, scope, and duration of PSPS events by reducing the probability of utility-involved ignitions and reducing the potential impact of wildfires on the BVES system.

As BVES continues to reduce ignition risk through the deployment of wildfire mitigation programs, BVES anticipates the likelihood to use its PSPS to become even more remote, but BVES will continue to evaluate the risk and necessity for its use. BVES notes the sufficient progress made on the eastern side of its territory in hardening efforts, which may lead to a threshold increase for PSPS triggers. This means that wind gusts and/or speed triggers may rise to activate a PSPS, particularly for the Erwin circuit on the eastern side, as the risks become lowered through mitigation measures such as covered conductor hardening, the completed fuse replacement project, and pole reinforcements.

V. OEIS Defect Review

1.e) A summary of all defects identified by the WSD within the annual compliance period, the corrective actions taken and the completion and/or estimated completion date.

Throughout 2021, BVES did not receive during its compliance assessments any Notice of Violation nor Notice of Defect documents issued by Energy Safety.

Table 4 below provides discussions of the issues communicated to BVES with progress updates, plans for fully remedying the issues, and alternative timelines, as applicable. A full report and update will be communicated in BVES's next 2022 WMP Update filing set to be filed on May 5, 2022. BVES has provided updates to the November 1, 2021 Progress Report ("Progress Report") regarding each of the required 14 issues from the Final Action Statement with specific remedy progress reports for those not stipulating a later timeline (e.g., in the 2022 WMP Update).

Table 4: Progress Report Issue Updates

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES- 21-01	Inadequate disaggregation of expenditure	As discussed in Section 1.2 of the Action Statement, BVES was required to disaggregate its WMP expenditure for its Revision Notice Response. However, Cal Advocates discovered that 17 of BVES's initiatives have the same expense amount in 2020, 11 in 2021, and 13 in 2022. In response to a Cal Advocates' data request, BVES states that it spreads certain expenses equally across multiple initiatives, but BVES offers no quantitative analysis to support such allocation.	For its 2022 WMP Update, BVES must identify where common costs are allocated across multiple initiatives. In addition, BVES must justify its allocation methodology by describing these common costs in detail, explaining how they relate to each initiative anddemonstrating that the allocated values reasonably reflect the initiatives' true costs.	This issue is poised to be addressed within the 2022 WMP Update filing.
BVES-21-02	Program targets are unmeasurable and difficult to track	The 2021 WMP guidelines defines program targets as "quantifiable lists 86 program targets; 32 of thesetargets have no numerical target and 42 targets are quantified by the unmeasurable unit "Percent Project Milestones Completed" (or similar) measurements of activity." In Table 5.3-1: List and Description of Program Targets, Last 5 Years, BVES	In its 2022 WMP Update, BVES must: 1. Only include quantifiable measurements of activity in its list of program targets in Table 5.3-1 (or similar). 2. To the extent possible, modify existing targets to use measurable units. For example, the unit for intrusive pole inspections should be "# of Pole Inspections" rather than "Percent of Scheduled Circuits Completed." 3. If using milestones as a sign of	This issue is poised to be addressed within the 2022 WMP Update filing.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
			progress, describe milestones in Section 7.3 under appropriate initiatives.	
BVES-21-03	Vegetation inspection roles lack minimum forestry and arboriculture qualifications	None of the roles described in Supporting Table 5.4.1-1 include minimum qualifications in forestry and arboriculture. In contrast, Liberty and PacifiCorp require their vegetation inspection personnel to either have ISA Arborist Certification, be a Register Professional Forester, or have some arboriculture experience. Energy Safety is concerned that BVES does not hire qualified workers to conduct vegetation inspections.	BVES must: 1. Provide evidence that its vegetation inspection personnel are adequately qualified and trained to perform vegetation inspections. 2. Include forestry and/or arboriculture certifications and/or experience as minimumqualifications for appropriate vegetation inspections roles.	BVES provided evidence to Energy Safety in the Progress Report that detailed its vegetation inspection personnel's qualifications and training. This included forestry and/or arboriculture certifications to meet minimum requirements carried through vegetation management roles. No additional certifications are reflected in this ARC. Refer to the Progress Report for a complete listing of qualifications.
BVES-21-04	No climate-driven risk mapping	BVES does not havea program that addresses climate- driven risk mapping.	In its 2022 WMP Update, BVES shall describe how it applies risk analysis models to consider future climate projections.	This issue is poised to be addressed within the 2022 WMP Update filing.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES-21-05	Lack of consistency in approach to wildfire risk modeling across utilities	The utilities do not have a consistent approach to wildfire risk modeling. For example, in their wildfire risk models, utilities use different types of data, use their individual data sets in different ways, and use different third-party vendors. The WSD recognizes that the utilities have differing service territory characteristics, differing data availability, and are at different stages in developing their wildfire risk models. However, the utilities face similar enough circumstances that there should be some level of consistency in their approaches to wildfire risk modeling statewide.	The utilities must collaborate through a working group facilitated by Energy Safety to develop a more consistentstatewide approach to wildfire risk modeling. After Energy Safety completes its evaluation of all the utilities' 2021 WMPUpdates, it will provide additional detail on the specifics of this working group. A working group to address wildfire risk modeling will allow for: 1. Collaboration among the utilities; 2. Stakeholder and academic expert input; and Increased transparency.	Improvements have been made toward addressing this issue since the Progress Report update. BVES has been participating in the OEIS Risk Mapping Working Group, which commenced in early October 2021. Part of the initial conversations centered around understanding each of the investor-owned utility methodologies for demonstrating risk assessment approaches, as well as current modeling techniques and data elements embedded within those models. Collaboration among the utilities will continue through the established modeling workshop, though, BVES has not yet engaged directly on mapping approaches among the small multijurisdictional utilities. BVES has contracted with an experienced wildfire risk modeling subject matter expert with broad expertise on aspects of California's high fire threat district zone mapping process. This consultant has worked over the second half of 2021 to produce updated risk maps for BVES, recently updated to the OEIS on October 5, 2021.
BVES-21-06	Disparities between BVES's situational awareness and forecasting capabilities and maturity model reporting	BVES had a significant increase in its maturity assessment ratings for situational awareness and forecasting in its WMP update. The ratings are much higher in comparison to peer utilities and prior reporting in 2020. It remains unclear if the ratings selected are accurate representations of BVES's maturity, as the explanations in the initiatives do notexplain these improvements.	BVES must describe: 1. How it intends to collect and measure physical impacts of weather on its grid, such as sway in lines and sway in vegetation. 2. How it plans to include wind estimations at various atmospheric altitudes relevant to ignition risk.	BVES provided a complete response in the Progress Report. A summary is discussed below. LiDAR survey results contribute to the estimation of the extent of sway in vegetation at various wind speeds. Further identification of limiting areas and wind speeds will be completed by the end of 2023. All weather stations are fully installed and operational as of the 2021 year end timeframe. These readings along with the contracted weather consultant provide awareness into the systems performance under tested weather conditions. BVES is working with the consultant

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
			3. What initiative it has or how it is using ignition detection software. 4. How it plans to accurately forecast weather at least three weeks in advance.	to attempt to include wind estimations and forecasts at various atmospheric altitudes relevant to ignition risks. Additionally, the weather consultant is directed to improve forecasting methods through long-range timetables, if possible. This will not be fully achievable until the end of 2023. ALERTWildfire cameras do not currently include ignition detection software, though, this is planned for the future. BVES will continue to collaborate with the academic institution as this improves.
BVES-21-07	Lack of detailon prioritization of initiatives based on determined risk	BVES does not provide any details on the actual prioritization of its grid hardening efforts, despite having determined the highest risk circuits along its system. Instead, BVES relies on the Tier 2 and Tier 3 HFTD designations to justify prioritization. BVES fails to provide the details on how the timing of deployment of its grid hardening efforts mitigate its highest risk areas and fails to provide a plan that demonstrates it is addressing and mitigating its highest risk areas.	BVES must: 1. Explain how the timing of deployment of its grid hardening efforts are based on its risk calculations and prioritize mitigating its highest risk areas; and 2. Provide a plan that demonstrates that BVES is addressing and mitigating its self- identified highest risk areas through system hardening initiatives.	BVES provided a complete response in the Progress Report. A summary is discussed below. The Risk Register and risk-based decision-making methodology includes weighted score indices to perform the calibrations of frequency and impact. Frequency is defined as “number of events per unit of time.” It is a measure of how often a risk event has occurred or is likely to occur. The frequency measured is the approximate frequency of the worst reasonable case of a specific risk event. These results influence the risk score rating of the Fire Safety Circuit Matrix, the principal planning guide utilized by BVES staff in scheduling grid hardening activities across all evaluated circuits. The timing and deployment of grid hardening efforts are currently linked to the scoring resulting from BVES’s Fire Safety Circuit Matrix tool, which is derived from the Risk Register determination of risk drivers and probabilistic consequences. Timing and deployment of activities are also characterized through the HFTD Tier 3 and Tier 2 determinations, followed with risk driver and consequence assessments attributed to each of the

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
				circuits. Through the engineering department, BVES determines the lines to be addressed utilizing the model results and RSE value outputs. Future updates to the models will occur as insight from the ignition probability mapping products reveal more direction in planning for initiatives based on risk area.
BVES-21-08	Limited evidence to support the effectiveness of covered conductor	The rationale to support the selection of covered conductor as a preferred initiative to mitigate wildfire risk lacks consistency among the utilities, leading some utilities to potentially expedite covered conductor deployment without fires demonstrating a full understanding of its long-term risk reduction and cost-effectiveness. The utilities' current covered conductor pilot efforts are limited in scope and therefore fail to provide a full basis for understanding how covered conductor will perform in the field. Additionally, utilities justify covered conductor installation by alluding to reduced PSPS risk but fail to provide adequate comparison to other initiatives' ability to reduce PSPS risk.	The utilities must coordinate to develop a consistent approach to evaluating the long- term risk reduction and cost-effectiveness of covered conductor deployment, including: 1. The effectiveness of covered conductor in the field in comparison to alternative initiatives. 2. How covered conductor installation compares to other initiatives in its potential to reduce PSPS risk.	Improvements have been made toward addressing this issue since the Progress Report update. Evaluations of covered conductor alternatives have occurred among the utilities through OEIS directed workshops. These results were prepared in a final report in early 2022 and shared amongst the workshop members. BVES remains confident in its primary tree wire conductor cable constructs as being the most effective based on engineering, financial viability, and risk reduction needs of owned and managed assets. BVES believes this strategy will mitigate any future PSPS activation.

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BVES-21-09	Lack of asset inspection quality assurance and quality control (QA/QC) program.	BVES is in the process of adopting a formal QA/QC program in 2021 but did not provide dates on when it intends to implement such, did not provide details on its current informal QA/QC process, nor providedetails on the scope of the QA/QC program currently in development.	BVES must: 1. Provide a timeline for its implementation of a formal QA/QC process. 2. Explain how it conducts quality checks of its asset inspections prior to the adoption of the formal program. 3. Develop an interim QA/QC procedure for asset inspections between now and the establishment of its new QA/QC program, if such has yet to be adopted, in order to ensure that work is being completed accurately and effectively. 4. Provide updates on the development of its QA/QC program in its Progress Report, including: (i) the scope of the QA/QC program, (ii) procedures of the QA/QC program that BVES has developed, and (iii) the status of the QA/QC program implementation.	BVES is continuing to refine its formalized QA/QC instruction and will now be issued for implementation in with the WMP 2022 update. Currently, equipment inspections are primarily conducted by internal BVES staff as described in the 2021 WMP. Additional detailed inspections are conducted by contract inspectors. The internal inspectors utilize informal procedures and team communication to govern and control the majority of inspection activities, which result in quick responses and correction activities, and has been a relatively effective process in legacy practices. Being a smaller utility, BVES is uniquely positioned to work directly with field crew and contractors with ability to contact/reach field operators within hours of initial notice. Additional inspections are performed using a truck-mounted LiDAR inspection performed by a third-party contractor. All inspection records are reviewed by the inspection manager and a summary of findings and issues is issued to the Utility Manager for review. This information was communicated to OEIS in the Progress Report. A summary of these protocols is described below. BVES's interim QA/QC program is currently described below: 1. Contractor's design/planning group develops work package (instructions, drawings, materials, etc.). 2. QA/QC: All design/planning work is reviewed by the BVES Field Inspector and/or the Engineering & Planning Department prior to construction to ensure the accuracy of the inspection.

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				3. Upon approval from BVES, contractor performs work. 4. QA/QC: BVES Field Inspector performs in-process QC checks. Discrepancies are resolved by the contractor with BVES oversight. 5. QA/QC: Upon work complete, BVES Field Inspector performs final inspection of the work in the field and performs the initial work package audit. Upon approval of fieldwork and final work package (as built), an initial billing review is performed and approval for invoicing is given. 6. QA/QC: Prior to authorizing an invoice for the work, 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. Activities to develop a framework and approach were initiated with internal discussions among contracted third-party resources, internal staff, and BVES's wildfire mitigation program consultants. (i) The scope of the QA/QC program will expand upon the design and governance structure communicated above. (ii) The procedures developed to date have been referenced in response above. (iii) The status of the QA/QC implementation is on target to be initiated in 2022 pending senior approvals and other unforeseen delays.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES-21-10	Limited discussion of community outreach	BVES-R7 requires BVES to discuss its community engagement and outreach as it relates to VM in Section 7.3.5.1. BVES instead discusses fuels management activities performed by other entities including Big Bear Fire Department and Bear Valley Community Service District. BVES mentions outreach efforts to "USFS, CAL FIRE and Big Bear Fire Department in an effort to develop collaborative measures in the area of fuels management," but fails to discuss how it mitigates the community impacts of major VM activities including tree-trimming and tree removal.	BVES must: 1. Provide descriptions of notification and communication methods for customers and partner agencies regarding VM activities including, but not limited to, tree-trimming and tree removal. 2. Detail any efforts in community outreach and public education related to vegetation management.	BVES provided a complete response in the Progress Report. A summary is discussed below. BVES has posted a concise training video on its website to demonstrate the activities performed within the utility's vegetation management program. BVES utilizes social media, bill inserts, communication emails, community workshop discussions, and radio advertisements to alert customers of vegetation management activities as well as general WMP related initiatives and possible PSPS risk during fire season. Weekly updates on tree trimming crew locations are provided on BVES's public website. BVES also offers a direct phone line for patrons to utilize with any questions on activities, encroachments on private residences, and for notifying the utility if a hazardous vegetation contact is identified. On its website, BVES provides education to viewers regarding appropriate tree planting practices that mitigate powerline contacts and differences in tree heights, vegetation density and fuel availability, and locations to plant certain trees on residential property. No additional updates are included to the response issued within the Progress Report for 2021 activities.
BVES-21-11	Inadequate discussion of QA/QC of VM inspections	From the discussion in Section 7.3.5.13, it is difficult to know whether BVES has a QA/QC program for VM. A brief mention of third- party evaluations isthe only unequivocal detail. It is unclear whom at BVES performs QA/QC, how often QA/QC is performed, and what goals and targets exist for QA/QC.	BVES must: 1. Describe the "lessons learned from third party evaluations and inspections." 2. Provide the number of QA/QC evaluation and inspections completed each year.	BVES provided a complete response in the Progress Report. A summary is discussed below. Findings from third-party evaluations of vegetation management inspection practices reveal a reduction of vegetation contacts overtime due to programmatic improvements with enhanced vegetation management practices. In 2016, BVES recorded 47 vegetation contacts, 16 in 2017, nine events in 2019, and five in both 2019 and 2020. This data indicates that enhanced

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
			3. Provide a QA/QC audit target as a percentage of total VM inspections per year. 4. Detail BVES's differentiation between its quality assurance program and quality control program. 5. Report on BVES's plan to add a QA program to the current QC program.	specifications are having a meaningful impact on reducing bare wire contact events overtime. BVES will gather additional lessons learned as they are recorded and tracked for the 2022 WMP update. The number of QA/QC inspections are detailed in the Quarterly Data Report ("QDR") for the fourth quarter of 2021. BVES VM QC target is 72 VM QC checks of VM clearance work per year. This equates to about 15 percent of the service area. BVES's VM contractor utilizes a three-year plan and clears about 33 percent of the service area per year. Therefore, BVES inspects through VM QC at least 50 percent of the VM contractor's work. BVES conducts frequent QC checks of its vegetation contractor's work execution. Discrepancies noted during QC checks, detailed inspections or patrols of overhead circuits or other means, are generally forwarded to contracted resource via the Kintone Tree Trimming QC application provided by BVES. BVES recently updated its Vegetation Management QC Program in early October 2021. With the recent inclusion of a certified contracted forester, BVES is in the process of training and defining an appropriate process. BVES aims to achieve reasonable assurance of executed vegetation management activities performed throughout the year by BVES. BVES is also working to include the procedures outlining the QA verification and quarterly/annual audits within the 2022 WMP update.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES-21-12	Spatial data issues	Energy Safety has identified numerous areas for improvement for BVES's Quarterly Data Reports. These issues negatively affect the usability of the data and do not meet Energy Safety GIS Standard.Energy Safety has specified these issues in Table 3 of the Action Statement.	See Table 3 for specific remedies related to each data issue. In the November 1, 2021 report, BVES must report on its progress in advancing its GIS capabilities.	The responses are addressed in the following rows below.
BVES-21-12-1	Empty/null geometry	Of 37 records submitted in the "Red Flag Warning Day" feature, 36 have no geometry. The single record with a polygon associated with it has no attributes.	BVES must follow Energy Safety GIS Data Reporting Standard, including items that require a geometry.	This will be addressed before the 2022 WMP Update.
BVES-21-12-2	OH and UG conductors separated	Overhead and underground asset line (conductor) data were reported separately, which is not necessary and does not meet the data standard.	Underground and overhead assets comprising the same portion of a utility's infrastructure (transmission / primary distribution / secondary distribution) are to be submitted in a single feature class, and the field "Asset OH or UG" used to describe the location of each asset.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.
BVES-21-12-3	Non-unique primary keys	Primary keys were not unique. Primary key / unique ID fields are fundamental, and data submitted without a unique primary key is not useable.	Each record submitted must have a primary key; each primary key must be unique.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.
BVES-21-12-4	Missing foreign keys	The records in the "VM Outages" feature class submitted did not have any values in the "DoutageID" field, which is the foreign key to the Distribution Outage feature.	Foreign keys must be submitted where specified in the data standard.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES-21-12-5	Domain values not used	In several cases, BVES submitted data which did not conform to the domains specified. One example of this is the "Asset OH or UG" field in the Transformer feature class.	BVES must use coded- value domains where specified in the data standard.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.
BVES-21-12-6	Changed field names	BVES submitted data which did not conform to the specifications in many cases. Fields/feature classes listed below do not match the specified names: "Substation" in Primary Distribution Line "DvmOutageI", "Inspection", "Assoc", "Assoc1", "TreeSpecie", "TreeD", "VmOutgDe", "Location", "Y_Coord", and "X_Coord" in VM Outages "Y2_COORD" and "X2_COORD" in Critical Facility	BVES must use feature class and field names specified in the data standard.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.
BVES-21-12-7	Removed fields	The data BVES submitted is missing the following fields specified in the data standard: "CircuitName", "SubstationID", and "Conductor Type" in Primary Distribution Line (OH) "CircuitName" and "SubstationName" in Primary Distribution Line (UG) "Basic Object Cause Comment" in Distribution Outage	BVES must not remove fields from the geodatabase template.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.

Utility -#	Issue title	Issue description	Remedies required and alternative timeline if applicable	Remedy Update since the Progress Report to Energy Safety
BVES-21-12-8	Changed field type or length	BVES submitted data which did not conform to the specifications in many cases. Fields/feature classes listed below were not of the correct type, or were longer than specified: “Outage Description”, Damaged Device Comment”, “MED”, and “Expulsion Fuse Operation” in Distribution Outage Every string type field in VM Outage feature (11 fields) “Red flag warning issue date” and “Fire Weather ZoneName” in Red Flag Warning Day	BVES must not modify the length or data type of fields.	BVES has updated its GIS package to account for this data issue in the Q3 2021 spatial data QDR submission.
BVES-21-13	Unexplained changes to risk spend efficiency (RSE) estimates for wildfire and PSPS mitigation initiatives	In its 2021 Revised WMP Update, BVESreported six different RSE estimates for wildfire mitigation initiatives and four different RSE estimates for PSPS mitigation initiatives comparedto its 2020 WMP without explanation. Refer to Table 4 and Table 5 for specific initiatives and RSE estimates.	BVES must provide all supporting documents and workpapers to justify the changes in RSE estimates outlined in Table 4 and Table 5 of the Action Statement.	BVES already provided workpapers with supporting documentation to justify changes in the RSE estimates outlined in Table 4 and Table 5 of the Final Action Statement within the Progress Report. No additional information is provided. The 2022 WMP Update filing will contain current values.
BVES-21-14	Limited discussion on reduction of scale, scope, and frequencyof PSPS	BVES has limited discussion on its near-term progress for reduction in scale, scope, and frequency of PSPS. BVES stated that due to its minimal use of PSPS in the past, it is unable to further reduce PSPS. Nevertheless, BVES must still report its plans to minimize PSPS scale, scope, and frequency, normalized for weather events and climatic conditions.	BVES must report on its plan to minimize the scale, scope, and frequency of PSPS events normalized for weather events and climatic conditions, and fully describe how its planned mitigation initiatives minimize PSPS impact.	This response is captured in Section **Error! Reference source not found.**. **Error! Reference source not found.** of this ARC. BVES has prepared its PSPS protocols in the event a proactive de-energization event is triggered. The greatest risk to customers would be the scenario where SCE enacts a PSPS that drops supply into the BVES service area. BVES did not activate a PSPS event in 2021 or in years prior.

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ATTACHMENT A:
2021 Forecast and Actual Spend Differentials

Table 5: 2021 ARC Forecast and Actual Spend with Variance Drivers

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Risk Assessment & Mapping	7.3.1.1	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	Risk Mapping Program	0.00	18.30	0.00	19.82	0.00	0%	1.52	8%	Within 20%
Risk Assessment & Mapping	7.3.1.2	Climate-driven risk map and modelling based on various relevant weather scenarios	Risk Mapping Program	0.00	18.30	0.00	19.38	0.00	0%	1.07	6%	Within 20%
Risk Assessment & Mapping	7.3.1.3	Ignition probability mapping showing the probability of ignition along the electric lines and equipment	Risk Mapping Program	0.00	18.30	0.00	18.05	0.00	0%	-0.25	-1%	Within 20%
Risk Assessment & Mapping	7.3.1.4	Initiative mapping and estimation of wildfire and PSPS risk-reduction impact	Risk Mapping Program	0.00	18.30	0.00	17.39	0.00	0%	-0.91	-5%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Risk Assessment & Mapping	7.3.1.5	Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment	Risk Mapping Program	0.00	18.30	0.00	17.61	0.00	0%	-0.69	-4%	Within 20%
Situational Awareness & Forecasting	7.3.2.1	Advanced weather monitoring and weather stations	Weather Station Installation Program	20.00	0.00	82.16	0.00	62.16	311%	0.00	0%	**CAPEX Overrun:** Labor to complete project was significantly higher than anticipated due to remote locations.
Situational Awareness & Forecasting	7.3.2.2	Continuous monitoring sensors	ALERT Wildfire Camera Installation Program	20.00	0.00	53.72	0.00	33.72	169%	0.00	0%	**CAPEX Overrun:** Labor to complete project was significantly higher than anticipated due to remote locations.
Situational Awareness & Forecasting	7.3.2.3	Fault indicators for detecting faults on electric lines and equipment	Situational Awareness Hardware Program // Fault Indicator Installation Project	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Situational Awareness & Forecasting	7.3.2.4	Forecast of a fire risk index, fire potential index, or similar	Weather Consultant // Fire Risk Index Activity	0.00	22.50	0.00	12.70	0.00	0%	-9.80	-44%	**OPEX Underrun:** Major weather events were fewer than budgeted.
Situational Awareness & Forecasting	7.3.2.5	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Personnel Sufficiency // High Risk Conditions Protocols	0.00	42.84	0.00	0.00	0.00	0%	-42.84	-100%	**OPEX Underrun:** 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 2021.
Situational Awareness & Forecasting	7.3.2.6	Weather forecasting and estimating impacts on electric lines and equipment	Weather Consultant // Weather Forecasting	0.00	22.50	0.00	12.70	0.00	0%	-9.80	-44%	**OPEX Underrun:** Major weather events were fewer than budgeted.
Grid Design & System Hardening	7.3.3.1	Capacitor maintenance and replacement program	Capacitor Replacement & Maintenance Projects	0.00	7.81	0.00	8.77	0.00	0%	0.97	12%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.2	Circuit breaker maintenance and installation to de-energize lines upon detecting a fault	Circuit Breaker Maintenance & Installation Program	0.00	41.16	0.00	59.68	0.00	0%	18.52	45%	**OPEX Overrun:** Labor to complete initiative was higher than estimated.
Grid Design & System Hardening	7.3.3.3 .1	Covered conductor installation	Covered Conductor Project - (4kV & 34.5 kV Systems)	5438.10	0.00	6156.72	0.00	718.62	13%	0.00	0%	Within 20%
Grid Design & System Hardening	7.3.3.3 .2	Covered conductor installation	Covered Conductor Project - Radford Line	1197.63	0.00	139.97	0.00	-1057.65	-88%	0.00	0%	**CAPEX Underrun:** Radford project was delayed beyond 2021 due to permit in processing with US Forest Service. BVES anticipates obtaining permit mid-2022.
Grid Design & System Hardening	7.3.3.4	Covered conductor maintenance	Covered Conductor Maintenance Activities	0.00	34.74	0.00	29.40	0.00	0%	-5.34	-15%	Within 20%
Grid Design & System Hardening	7.3.3.5	Crossarm maintenance, repair, and replacement	Crossarm Maintenance Activities	0.00	57.90	0.00	51.44	0.00	0%	-6.45	-11%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.6.1	Distribution pole replacement and reinforcement, including with composite poles	Distribution Pole Replacement and Reinforcement – GO 95 Projects	925.00	0.00	569.41	0.00	-355.59	-38%	0.00	0%	**CAPEX Underrun:** spend was lower than estimated because the Covered Wire Project and Pole Loading & Remediation Project work ended up resolving work that would have been conducted in this initiative.
Grid Design & System Hardening	7.3.3.6.2	Distribution pole replacement and reinforcement, including with composite poles	Evacuation Route Hardening Program (Pilot)	0.00	0.00	16.08	0.00	16.08	0%	0.00	0%	**CAPEX Overrun:** Additional CAPEX was expended in 2021 to test Light Weight Steel poles along evacuation routes. This pilot project is now completed. *Percentage is undefined. No forecast in spend with actuals. Overrun as a result.*

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.6.3	Distribution pole replacement and reinforcement, including with composite poles	Evacuation Route Hardening Program	390.00	0.00	560.07	0.00	170.07	44%	0.00	0%	**CAPEX Overrun:** The labor hours required to install the wire mesh was higher than estimated.
Grid Design & System Hardening	7.3.3.6.4	Distribution pole replacement and reinforcement, including with composite poles	Covered Conductor Project - Radford Line	4246.14	0.00	39.48	0.00	-4206.66	-99%	0.00	0%	**CAPEX Underrun:** Radford project was delayed beyond 2021 due to permit in processing with US Forest Service. BVES anticipates obtaining permit mid-2022.
Grid Design & System Hardening	7.3.3.7	Expulsion fuse replacement	Fuse Replacement Program	741.85	0.00	1486.59	0.00	744.74	100%	0.00	0%	**CAPEX Overrun:** Labor for installing FuseTrip Savers was higher than estimated.
Grid Design & System Hardening	7.3.3.8	Grid topology improvements to mitigate or reduce PSPS events	Grid Topology Improvement Activities	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.9.1	Installation of system automation equipment	Grid Automation Program // SCADA	1315.93	0.00	3129.95	0.00	1814.02	138%	0.00	0%	**CAPEX Overrun:** The fiber network installation was completed, which had higher costs that originally anticipated.
Grid Design & System Hardening	7.3.3.9.2	Installation of system automation equipment	Fault Isolation Localization and Service Restoration (FLISR)	377.01	0.00	189.51	0.00	-187.50	-50%	0.00	0%	**CAPEX Underrun:** Cost was lower than anticipated due to some of the work originally planned required the service area fiber network to be operational. The fiber network was not operational until December 2021, so some project work was deferred to 2022.
Grid Design & System Hardening	7.3.3.10	Maintenance, repair, and replacement of connectors, including hotline clamps	Connector Maintenance Repair & Replacement	0.00	11.71	0.00	12.43	0.00	0%	0.72	6%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.11	Mitigation of impact on customers and other residents affected during PSPS event	Bear Valley Energy Storage Facility	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Grid Design & System Hardening	7.3.3.12.1	Other corrective action	Safety & Technical Upgrades of Substations (no real spend for Pineknot - just Palomino)	1816.68	78.09	1674.58	95.32	-142.10	-8%	17.22	22%	**OPEX Overrun:** Labor to complete the O&M component of the initiative was higher than estimated.
Grid Design & System Hardening	7.3.3.12.2	Other corrective action	Tree Attachment Removal Program	524.98	0.00	274.19	0.00	-250.79	-48%	0.00	0%	**CAPEX Underrun:** While the 2021 spend was lower than projected; this is a 5-year project (2018-2022) with a total budget of $3,246,884 and $2,607,464 expended to date (total project variance is 20%).

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.13	Pole loading infrastructure hardening and replacement program based on pole loading assessment program	Pole Loading Assessment & Remediation Program	1475.42	0.00	1727.52	0.00	252.10	17%	0.00	0%	**CAPEX Overrun:** While the 2021 spend was higher than projected; this is a 5-year project (2018-2022) with a total budget of $12,220,653 and $11,122,063 expended to date (total project variance is 9%). *Note: Projections resulted in 17% overrun, explanation provides details into the unique aspects of the project.*
Grid Design & System Hardening	7.3.3.14	Transformers maintenance and replacement	Transformer Maintenance & Replacement Activities	310.00	19.47	0.00	12.83	-310.00	-100%	-6.64	-34%	**CAPEX/OPEX Underrun:** No transformers were required to be purchased in 2021 due to inventory not going below minimum. O&M was lower than estimated due to less labor expended than estimated.

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Design & System Hardening	7.3.3.15	Transmission tower maintenance and replacement	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Grid Design & System Hardening	7.3.3.16	Undergrounding of electric lines and/or equipment	Minor Under-grounding Upgrades Projects	105.00	0.00	508.65	0.00	403.65	384%	0.00	0%	**CAPEX Overrun:** underground work was significantly higher than estimated mainly due to more public works and new customer project scope of work than anticipated.
Grid Design & System Hardening	7.3.3.17	Updates to grid topology to minimize risk of ignition in HFTDs	No Active Project or Program	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Asset Management & Inspections	7.3.4.1	Detailed inspections of distribution electric lines and equipment	Detailed Inspection Program	0.00	15.41	0.00	8.18	0.00	0%	-7.23	-47%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Asset Management & Inspections	7.3.4.2	Detailed inspections of transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Asset Management & Inspections	7.3.4.3	Improvement of inspections	Improvement of Electrical Inspection Procedures	0.00	17.18	0.00	19.87	0.00	0%	2.69	16%	Within 20%
Asset Management & Inspections	7.3.4.4	Infrared inspections of distribution electric lines and equipment	Infrared Inspection Program	0.00	60.00	0.00	53.38	0.00	0%	-6.62	-11%	Within 20%
Asset Management & Inspections	7.3.4.5	Infrared inspections of transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Asset Management & Inspections	7.3.4.6	Intrusive pole inspections	Pole Loading Assessment & Remediation Program // Intrusive Pole Inspection Activities	0.00	150.00	0.00	30.51	0.00	0%	-119.49	-80%	**OPEX Underrun:** BVES was able to contract the work for lower cost than projected. Intended scope of work was achieved.
Asset Management & Inspections	7.3.4.7	LiDAR inspections of distribution electric lines and equipment	LiDAR Inspection Program	0.00	120.00	0.00	59.56	0.00	0%	-60.44	-50%	**OPEX Underrun:** BVES was able to contract the work for lower cost than projected. Intended scope of work was achieved.
Asset Management & Inspections	7.3.4.8	LiDAR inspections of transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Asset Management & Inspections	7.3.4.9.1	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Detailed Inspection Program // Third Party Ground Patrol	0.00	45.00	0.00	15.93	0.00	0%	-29.07	-65%	**OPEX Underrun:** BVES was able to contract the work for lower cost than projected. Intended scope of work was 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	0.00	60.00	0.00	53.38	0.00	0%	-6.62	-11%	Within 20%
Asset Management & Inspections	7.3.4.10	Other discretionary inspection of transmission electric lines and	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Asset Management & Inspections	7.3.4.11	Patrol inspections of distribution electric lines and equipment	Ground Patrol Inspection Program	0.00	35.95	0.00	19.08	0.00	0%	-16.87	-47%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.
Asset Management & Inspections	7.3.4.12	Patrol inspections of transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Asset Management & Inspections	7.3.4.13	Pole loading assessment program to determine safety factor	Pole Loading Assessment & Remediation Program	77.66	0.00	90.92	0.00	13.27	17%	0.00	0%	Within 20%
Asset Management & Inspections	7.3.4.14	Quality assurance / quality control of inspections	Inspection Improvement Activities // QA/QC Activities	0.00	17.18	0.00	19.87	0.00	0%	2.69	16%	Within 20%
Asset Management & Inspections	7.3.4.15	Substation inspections	Substation Inspection Program	0.00	167.99	0.00	100.81	0.00	0%	-67.18	-40%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.1	Additional efforts to manage community and environmental impacts	Forester Service // Community & Environmental Impact Mitigation Activities	0.00	39.37	0.00	35.82	0.00	0%	-3.54	-9%	Within 20%
Vegetation Management & Inspections	7.3.5.2	Detailed inspections and management practices for vegetation clearances around distribution electrical lines and equipment	Enhanced Vegetation Management Program // Detailed Inspections	0.00	15.41	0.00	8.18	0.00	0%	-7.23	-47%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.
Vegetation Management & Inspections	7.3.5.3	Detailed inspections and management practices for vegetation clearances around transmission electrical lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.4	Emergency response vegetation management due to red flag warning or other urgent weather conditions	Resource Sufficiency // High Risk Conditions Procedures	0.00	111.40	0.00	117.63	0.00	0%	6.24	6%	Within 20%
Vegetation Management & Inspections	7.3.5.5	Fuel management (including all wood management) and management of “slash” from vegetation management activities	Enhanced Vegetation Management Program // Fuels Mitigation Activities	0.00	130.00	0.00	141.31	0.00	0%	11.31	9%	Within 20%
Vegetation Management & Inspections	7.3.5.6	Improvement of inspections	Inspection Improvement Activities	0.00	39.37	0.00	38.57	0.00	0%	-0.80	-2%	Within 20%
Vegetation Management & Inspections	7.3.5.7	Remote sensing inspections of vegetation around distribution electric lines and equipment	LiDAR Inspection Program	0.00	120.00	0.00	59.56	0.00	0%	-60.44	-50%	**OPEX Underrun:** BVES was able to contract the work for lower cost than projected. Intended scope of work was achieved.

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.8	Remote sensing inspections of vegetation around transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Vegetation Management & Inspections	7.3.5.9.1	Other discretionary inspections of vegetation around distribution electric lines and equipment	Enhanced Vegetation Management Program // Off-Schedule Work Activities	0.00	45.00	0.00	15.93	0.00	0%	-29.07	-65%	**OPEX Underrun:** BVES was able to contract the work for lower cost than projected. Intended scope of work was 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	0.00	60.00	0.00	53.38	0.00	0%	-6.62	-11%	Within 20%
Vegetation Management & Inspections	7.3.5.10	Other discretionary inspections of vegetation around transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.11	Patrol inspections of vegetation around distribution electric lines and equipment	Enhanced Vegetation Management Program // Patrol Inspections	0.00	35.95	0.00	19.08	0.00	0%	-16.87	-47%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.
Vegetation Management & Inspections	7.3.5.12	Patrol inspections of vegetation around transmission electric lines and equipment	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Vegetation Management & Inspections	7.3.5.13	Quality assurance / quality control of vegetation management	Inspection Improvement Activities // QA/QC Activities	0.00	54.16	0.00	56.02	0.00	0%	1.87	3%	Within 20%
Vegetation Management & Inspections	7.3.5.14	Recruiting and training of vegetation management personnel	Forester Contractor Services	0.00	29.06	0.00	29.20	0.00	0%	0.14	0%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.15	Identification and remediation of "at-risk species"	Enhanced Vegetation Management Program // Hazardous Tree Removal	0.00	144.79	0.00	150.47	0.00	0%	5.68	4%	Within 20%
Vegetation Management & Inspections	7.3.5.16	Removal and remediation of trees with strike potential to electric lines and equipment	Enhanced Vegetation Management Program // Hazardous Tree Removal	0.00	144.79	0.00	164.60	0.00	0%	19.81	14%	Within 20%
Vegetation Management & Inspections	7.3.5.17	Substation inspection	Substation Inspection Program	0.00	6.75	0.00	5.05	0.00	0%	-1.70	-25%	**OPEX Underrun:** Actual inspection scope of work was achieved at lower than projected cost.
Vegetation Management & Inspections	7.3.5.18	Substation vegetation management	Substation Inspection Program // Vegetation Management	0.00	12.00	0.00	17.34	0.00	0%	5.34	45%	**OPEX Overrun:** Actual vegetation growth that required clearing was greater than estimated.

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Vegetation Management & Inspections	7.3.5.19	Vegetation management enterprise system	Enhanced Vegetation Management Program // Inventory System Activities	0.00	144.79	0.00	207.00	0.00	0%	62.21	43%	**OPEX Overrun:** Actual effort and cost to inventory vegetation was higher than anticipated.
Vegetation Management & Inspections	7.3.5.20	Vegetation management to achieve clearances around electric lines and equipment	Enhanced Vegetation Management Program // Equipment Vegetation Clearances	0.00	2054.00	0.00	2119.66	0.00	0%	65.66	3%	Within 20%
Vegetation Management & Inspections	7.3.5.21	Vegetation management activities post-fire	Not Applicable	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Grid Operations & Operating Protocols	7.3.6.1	Automatic recloser operations	Automatic Recloser Operational Protocols	0.00	17.18	0.00	19.87	0.00	0%	2.69	16%	Within 20%
Grid Operations & Operating Protocols	7.3.6.2	Protective equipment and device settings	*New Initiative added for 2022*	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Grid Operations & Operating Protocols	7.3.6.3	Crew-accompanying ignition prevention and suppression resources and services	No Applicable Program	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Grid Operations & Operating Protocols	7.3.6.4	Personnel work procedures and training in conditions of elevated fire risk	Personnel Sufficiency // High Risk Conditions Protocols	0.00	6.87	0.00	7.73	0.00	0%	0.85	12%	Within 20%
Grid Operations & Operating Protocols	7.3.6.5	Protocols for PSPS re-energization	PSPS Re-Energization Protocols	0.00	6.87	0.00	7.95	0.00	0%	1.08	16%	Within 20%
Grid Operations & Operating Protocols	7.3.6.6	PSPS events and mitigation of PSPS impacts	PSPS Mitigation Activities	0.00	6.87	0.00	7.59	0.00	0%	0.72	11%	Within 20%
Grid Operations & Operating Protocols	7.3.6.7	Stationed and on-call ignition prevention and suppression resources and services	No Applicable Program	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Data Governance	7.3.7.1	Centralized repository for data	GIS-Based Applications	0.00	101.11	0.00	225.55	0.00	0%	124.44	123%	**OPEX Overrun:** Actual costs to upgrade GIS database to conform the data schema required to document WMP initiatives and grid assets was higher than estimated.
Data Governance	7.3.7.2	Collaborative research on utility ignition and/or wildfire	GIS-Based Applications // Research on Ignition Discovery	0.00	0.00	0.00	0.00	0.00	0%	0.00	0%	NA
Data Governance	7.3.7.3	Documentation and disclosure of wildfire-related data and algorithms	GIS-Based Applications // Data Sharing Activities	0.00	6.87	0.00	8.17	0.00	0%	1.30	19%	Within 20%
Data Governance	7.3.7.4	Tracking and analysis of near miss data	GIS-Based Applications // Risk Event Tracking Activities	0.00	6.87	0.00	7.06	0.00	0%	0.19	3%	Within 20%

Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Resource Allocation Methodology	7.3.8.1	Allocation methodology development and application	Resource Allocation Methodology // Personnel Sufficiency	0.00	6.87	0.00	7.73	0.00	0%	0.85	12%	Within 20%
Resource Allocation Methodology	7.3.8.2	Risk reduction scenario development and analysis	Risk Mapping Program // Risk Reduction Scenario Modeling	0.00	18.30	0.00	19.60	0.00	0%	1.30	7%	Within 20%
Resource Allocation Methodology	7.3.8.3	Risk spend efficiency analysis	Risk Mapping Program / Risk Spend Efficiency	0.00	18.30	0.00	19.60	0.00	0%	1.30	7%	Within 20%
Emergency Planning & Preparedness	7.3.9.1	Adequate and trained workforce for service restoration	Personnel Sufficiency // Service Restoration Activities	0.00	6.87	0.00	7.85	0.00	0%	0.97	14%	Within 20%

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Emergency Planning & Preparedness	7.3.9.2	Community outreach, public awareness, and communications efforts	Community Outreach Program	0.00	15.00	0.00	79.20	0.00	0%	64.20	428%	**OPEX Overrun:** Public outreach costs were significantly higher than projected because the actual costs of effective public outreach were higher than anticipated.
Emergency Planning & Preparedness	7.3.9.3	Customer support in emergencies	Emergency Response Plan	0.00	59.50	0.00	60.18	0.00	0%	0.68	1%	Within 20%
Emergency Planning & Preparedness	7.3.9.4	Disaster and emergency preparedness plan	Emergency Response Plan	0.00	6.87	0.00	7.11	0.00	0%	0.24	3%	Within 20%
Emergency Planning & Preparedness	7.3.9.5	Preparedness and planning for service restoration	Emergency Response Plan	0.00	6.87	0.00	6.80	0.00	0%	-0.07	-1%	Within 20%

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Mitigation Category	2021 WMP - Initiative Activity #	WMP Initiative Activity	WMP Activity Program/ Project Title	2021 Forecast CAPEX ($000)	2021 Forecast OPEX ($000)	2021 Actuals CAPEX ($000)	2021 Actuals OPEX ($000)	CAPEX ($000) Variance Overrun / (Underrun)	CAPEX (%) Variance Overrun / (Underrun)	OPEX ($000) Variance Overrun / (Underrun)	OPEX (%) Variance Overrun / (Underrun)	Variance Drivers (Results +/- 20%)
Emergency Planning & Preparedness	7.3.9.6	Protocols in place to learn from wildfire events	Emergency Response Plan	0.00	6.87	0.00	6.71	0.00	0%	-0.16	-2%	Within 20%
Stakeholder Cooperation & Community Engagement	7.3.10.1	Community engagement	Community Outreach Program	0.00	27.07	0.00	29.91	0.00	0%	2.84	10%	Within 20%
Stakeholder Cooperation & Community Engagement	7.3.10.2	Cooperation and best practice sharing with agencies outside CA	Community Outreach Program // Continuous Learning	0.00	15.00	0.00	16.78	0.00	0%	1.78	12%	Within 20%
Stakeholder Cooperation & Community Engagement	7.3.10.3	Cooperation with suppression agencies	Community Outreach Program // Fire District Engagements	0.00	6.87	0.00	7.06	0.00	0%	0.19	3%	Within 20%
Stakeholder Cooperation & Community Engagement	7.3.10.4	Forest service and fuel reduction cooperation and joint roadmap	Contracted Forester Services // future collaborative work with land agencies	0.00	14.79	0.00	11.91	0.00	0%	-2.88	-19%	Within 20%

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ATTACHMENT B:
High Risk Areas for PSPS Consideration

Figure 3: High Risk Areas for PSPS Consideration and Customer Count