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

Wildfire Mitigation Plan 2026-2028
Data Response

BVES Data Request No.	OEIS-P-WMP_2025-BVES-001
Request Date:	April 22, 2025
Due Date:	April 25, 2025
Requester:	Blythe Denton, Senior Wildfire Safety Analyst

SUBJECT(S):

Q01. Regarding Wood and Slash Management Tracking
Q02. Regarding Integrated Vegetation Management
Q03. Regarding Vegetation Management Planning Partnerships
Q04. Regarding Drip Line Clearance
Q05. Regarding Vegetation Management Procedures
Q06. Regarding BVES-25U-05. Vegetation Management Remote Sensing Evaluation
Q07. Regarding Quality Control Pruning and Removal Checks:
Q08. Regarding Asset Inspection Risk Reduction Calculations in Table 8-1
Q09. Regarding UAV Videography/Photography Inspections
Q010. Regarding UAV Thermography Inspections
Q011. Regarding Connector and Conductor Equipment Failure Rates
Q012. Regarding Risk Model Updates
Q013. Regarding Risk Model Review and Validation
Q014. Regarding Overall Utility Risk Scores

Total Attachments: 9

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BVES RESPONSE

Q01. Regarding Wood and Slash Management Tracking:
On page 209 of its 2026-2028 WMP, BVES states, "Per the contract with the vegetation management contractor, crews are responsible to remove all wood and slash and properly dispose of them to appropriate waste centers."

a. Does BVES document and track the management of slash and woody debris that is a byproduct of VM work?
    i. If yes, describe the documentation and record keeping methods used, and what data fields are recorded as part of the project tracking process?
    ii. If no, explain how BVES ensures wood and slash management is complete in all VM treatment areas according to internal procedures and standards, and how BVES plans to integrate wood and slash debris management tracking into internal procedures similar to tracking the completion of other VM work.

RESPONSE: BVES tracks the removal of all wood and slash byproduct. After VM work occurs, the BVES contracted crews will record whether or not they remove the slash within the vegetation management enterprise system. Once it is documented in the enterprise system, the contracted forester, which conducts 100% QC on all vegetation management work, looks to ensure that no slash is left at the work site. This data is also held within the vegetation management enterprise system.

Q02. Regarding Integrated Vegetation Management:
On page 211 of BVES's 2026-2028 WMP, it states that "BVES does not have any dedicated initiatives under this activity but does intend to move to making a dedicated effort toward this activity and to evolve it into an initiative." BVES adds that "during the
period of this WMP, the Wildfire Mitigation and Reliability Engineer will develop procedures as these programs evolve and are implemented."

a. Describe the process and timeline for developing integrated vegetation management activities. Specifically:
    i. The steps BVES plans to take to formalize its efforts to "replace fast growing non-native species with slow growing native species."
    ii. The steps BVES plans to take to formalize managing vegetation along distribution rights-of-way to promote the success of low-growing, native, power-line compatible plant communities.

RESPONSE: BVES plans to begin discussions with an organization called Blue Forest along with the Forest Service to help create a plan for areas around BVES service territory to increase forest health while restoring a more fire resilient forest structure. This plan will target non-native species for removal. BVES had the first meeting with these organizations on 4/23/2025. BVES is

also attempting to partner with other Southern California mountain community groups to help with the health of the surrounding forest and target non-native fast-growing vegetation.

Additionally, BVES documents all fast-growing vegetation within the vegetation management enterprise system. When it is possible, these trees are removed by BVES crews. BVES has a "Right Tree Right Place" program in place. Informational material is on the company website and is also handed out at committee events such as Earth Day.

Q03. Regarding Vegetation Management Planning Partnerships:
The WMP Guidelines for Section 9.8 Partnerships defines "partnerships" as "the combining of resources, expertise, and efforts to accomplish agreed upon objectives related to wildfire risk reduction achieved through vegetation management." On page 211 of its 2026-2028 WMP, BVES states that it, "does not currently have any formal partnerships that are associated with the vegetation management program," yet BVES describes collaborations related to vegetation and fuels management in several other initiatives (e.g., 9.4 and 9.7). BVES briefly describes collaborations with the City of Big Bear Lake, local Fire Departments, and the US Forest Service that include "preventative vegetation management, corrective vegetation clearance, and emergency vegetation clearance," (p. 207, BVES 2026-2028 Base WMP). BVES also states that it is a "member of the Inland Empire Fire Safe Alliance and Big Bear Fire Safe"(p. 210, BVES 2026-2028 Base WMP).

a. Clarify why BVES states there are no partnerships associated with VM work, yet describes collaborations in other VM-related sections of the 2026-28 WMP.
b. Describe the process and specific outcomes of collaborative efforts with the City of Big Bear Lake, local Fire Departments, and the US Forest Service.
c. Provide a copy of the vegetation management plan BVES developed with the aforementioned partners.
d. Clarify BVES's role and contributions to the Inland Empire Fire Safe Alliance and Big Bear Fire Safe.

RESPONSE: BVES does not have any formal partnerships with outside agencies. BVES does collaborate with many outside agencies with productive verbal meetings. Some examples of these meetings are with the City of Big Bear Lake Code Enforcement, U.S. Forest Service, and Big Bear Fire Department Fire Marshals to discuss dead or dying trees that may need to be removed or discussions about ways to help reduce fuels within the Big Bear Lake community. Big Bear is a small community where these discussions are very frequent and productive. BVES does not have a written vegetation management plan with any of these organizations.
BVES is a participating member in the Inland Empire Fire Safe Alliance. BVES is working with the Inland Fire Safe Alliance along with Mountain Rim Fire Safe Council to help establish the Big Bear Fire Safe Council. BVES attended meetings in 2024 in the Big Bear Community aimed

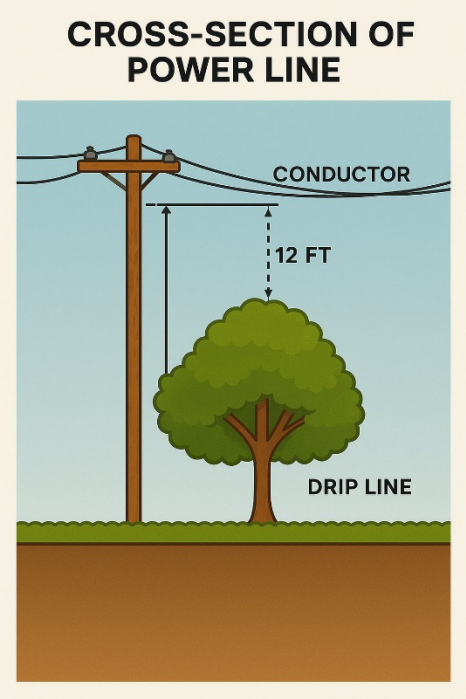
at setting up the Big Bear Fire Safe Council.

Q04. Regarding Drip Line Clearance

The Clearance sub-sections of the Inspections section (e.g. WMP section 9.2.1.3, pg. 186) of the WMP refer to "Drip Line" clearance.

a. Provide a detailed description of the portion of the utility right of way managed to maintain Drip Line clearance.
b. Provide a cross-sectional diagram of the utility right of way indicating the portion managed to maintain Drip Line clearance.

RESPONSE: BVES is managing existing trees within the dripline areas of the right of ways. The drip line radius trimming standards state that a trim is initiated at 72 inches and vegetation is removed out to 12 feet from the conductors. BVES also removes trees under the lines when it is appropriate to do so.



Q05. Regarding Vegetation Management Procedures:

The WMP Guidelines state that "the electrical corporation must list the procedures, including the version(s) and effective date(s), for the inspection activity (program)." (p. 108, Wildfire Mitigation Plan Guidelines)

For each program listed below, if procedure documents exist:

a. Provide the procedure document(s), including version(s) and effective date(s).
b. If procedure documents do not exist:
    i. Explain why BVES does not have procedure document(s) for these programs.
    ii. Provide any plans BVES has to create procedure document(s) for these programs.

Vegetation Management Programs covered by this question:

1. Detailed Inspection (Tracking ID: VM_1)
2. Patrol inspections (Tracking ID: VM_2)
3. UAV Photography/Videography (Tracking ID: VM_3)
4. LiDAR Inspection (Tracking ID: VM_4)
5. 3rd Party Ground Patrol (Tracking ID: VM_5)
6. Substation Inspection (Tracking ID: VM_6)
7. Satellite imaging inspection (Tracking ID: VM_7)
8. Fall-in Mitigation and High-risk Species (Tracking ID: VM_8)
9. Clearance (Tracking ID: VM_9)
10. Pole Clearing (Tracking ID: VM_10)
11. Wood and Slash Management (Tracking ID: VM_11)
12. Substation defensible space (Tracking ID: VM_12)
13. Emergency Response Vegetation Management (Tracking ID: VM_13)
14. Post-fire Service Restoration (Tracking ID: VM_14)
15. Vegetation Management Quality Assurance / Quality Control (Tracking ID: VM_15)
16. Vegetation Management Open Work Orders (Tracking ID: VM_16)
17. Vegetation Management Qualifications and Training (Tracking ID: VM_17)

RESPONSE:

1. Detailed Inspection (Tracking ID: VM_1)

    - See document "BVES GO 165 Procedures" dated July 1, 2020.

2. Patrol inspections (Tracking ID: VM_2)

    - See document "BVES GO 165 Procedures" dated July 1, 2020.

3. UAV Photography/Videography (Tracking ID: VM_3)

- See document "UAV Inspection Scope of work" dated March 18, 2021.

4. LiDAR Inspection (Tracking ID: VM_4)

   - See document "LiDAR Inspection Scope of work" dated February 23, 2024.

5. 3rd Party Ground Patrol (Tracking ID: VM_5)

   - See document "See document "BVES GO 165 Procedures" dated July 1, 2020.

6. Substation Inspection (Tracking ID: VM_6)

   - See document "GO-174 Substation Inspection procedures" dated 9/30/2014.

7. Satellite imaging inspection (Tracking ID: VM_7)

See document "Satellite imaging inspection Scope of work" dated June 1, 2023.

8. Fall-in Mitigation and High-risk Species (Tracking ID: VM_8)

   - See document "BVES INC VM and VM QC Programs Policy and Procedures R1" dated October 6, 2021.

9. Clearance (Tracking ID: VM_9)

   - See document "BVES INC VM and VM QC Programs Policy and Procedures R1" dated October 6, 2021.

10. Pole Clearing (Tracking ID: VM_10)

    - See document "BVES INC VM and VM QC Programs Policy and Procedures R1" dated October 6, 2021.

11. Wood and Slash Management (Tracking ID: VM_11)

    - See document "Vegetation Management Crew Procedures" Page 10, dated September 25,2020.

12. Substation defensible space (Tracking ID: VM_12)

- See document "BVES does not currently have a written procedure for substation defensible space. BVES is working on updating the "BVES INC VM and VM QC Programs Policy and Procedures R1" that will include Open Work Order procedures. BVES plans to complete an updated policy in 2025.

13. Emergency Response Vegetation Management (Tracking ID: VM_13)

    - See document "Vegetation Management Crew Procedures" Page 6, dated September 25,2020.

14. Post-fire Service Restoration (Tracking ID: VM_14)

    - See document "Vegetation Management Crew Procedures" Dated September 25,2020.

15. Vegetation Management Quality Assurance / Quality Control (Tracking ID: VM_15)

    - See document "BVES INC VM and VM QC Programs Policy and Procedures R1" dated October 6, 2021.

16. Vegetation Management Open Work Orders (Tracking ID: VM_16)

    - BVES does not currently have a written procedure for open work orders. BVES is working on updating the "BVES INC VM and VM QC Programs Policy and Procedures R1" that will include Open Work Order procedures. BVES plans to complete an updated policy in 2025.

17. Vegetation Management Qualifications and Training (Tracking ID: VM_17)

    - BVES does not currently have a written procedure for vegetation management Qualifications and training. All contractors are required to provide BVES with qualified personnel.

Q06. Regarding BVES-25U-05. Vegetation Management Remote Sensing Evaluation:

The response to BVES-25U-05 lists three data outputs for satellite and lidar inspections (p. D- 113, BVES 2026-2028 Base WMP).

a. For "Criticality Score," describe:
    i. The inputs used to calculate the output.
    ii. The calculation(s) used to calculate the output.
    iii. The range of possible output values.
    iv. Output value threshold(s) BVES uses for vegetation management decision making.
b. For "Hazard Tree Risk," describe:
    i. The inputs used to calculate the output.
    ii. The calculation(s) used to calculate the output.
    iii. The range of possible output values.
    iv. Output value threshold(s) BVES uses for vegetation management decision making.
c. For "Grow-in Risk," describe:
    i. The inputs used to calculate the output.
    ii. The calculation(s) used to calculate the output.
    iii. The range of possible output values.
    iv. Output value threshold(s) BVES uses for vegetation management decision making.

RESPONSE:

Criticality Score

The inputs used to calculate the output: Vegetation conditions: Minimum Vegetation Clearance Span level network attributes: Voltage, Phase, Customers Downstream

The calculation(s) used to calculate the output: Span level score is computed based on 2 primary dimensions:

- Impact of an outage – determined by: Minimum Vegetation Clearance, which indicates how close the vegetation is to the closest conductor
- Likelihood of an outage – determined by: Voltage, Phase, Customers Downstream, which serves as a proxy for network vulnerability and potential exposure
    - Each of these components is normalized to ensure consistency across varying circuit characteristics
    - Final Span score is the calculated as the product normalized impact and likelihood score
    - The span level score is then aggregated at higher levels (segment, circuit, grid) to generate a composite criticality score that supports prioritization and risk-based decision making

The range of possible output values:
0 – 100

BVES uses the Criticality Score two different ways. The first is for planning the next years routine work. The highest scores are prioritized to be trimmed before areas that have lower scores. The second way BVES uses this metric is for spot trimming. Higher scores for areas that are not part of the routine trim plan will be inspected and remediated. BVES has not yet identified a threshold score that would immediately trigger VM work. BVES has not had enough experience with the score to create that threshold.

Hazard Tree Risk

The inputs used to calculate the output:
Within a 300 ft. corridor (150 ft. either side of the centerline) conditions are recorded for all detected discrete vegetation areas (~10-200 sqft.)

- Vegetation Conditions: Health Estimation: (Healthy/Unhealthy), Height, Area, Distance to closest conductor
- Striking Potential (Y/N): Y if vegetation height > distance to closest conductor
- Feeder/Circuit Segmentation: Protective Devices (Fuses)

The calculation(s) used to calculate the output:
High: Segment contains one discrete vegetation area where (Striking Potential=Y & Health Estimation=Unhealthy)
Medium: Segment contains one discrete vegetation area where (Striking Potential=Y & Health Estimation=Healthy)
Low: Segment does not meet criteria for Medium or High
The range of possible output values:
Risk Score is given at the segment level: Low, Medium, High

BVES uses the Hazard Tree Risk score to identify dead or dying trees. All high-risk trees are inspected annually.

Grow In Risk

The inputs used to calculate the output:

- Vegetation conditions: Minimum vegetation radial clearance from the outermost conductor
- Feeder/Circuit Segmentation: Protective Devices (Fuses)

The calculation(s) used to calculate the output:
Risk is scored by span-level clearance: High (0-6 ft.), Medium (6-9 ft.), Low (9+ ft.)
High: 20% of segment length have vegetation encroachment within 6ft. from the closest conductor line
Medium: when either 50% of its length falls within the 6-9 ft range or 50% of its length falls within the 0-9 ft range from the closest conductor line
Low: when the segment does not fall below any of the above categories

The range of possible output values:
Risk Score is given at the segment level: Low, Medium, High

BVES uses Grow In Risk to help identify areas that need additional inspection. When the findings or the inspection are provided to BVES, The contracted forester will go out and inspect the segments that have a high score for Grow In.

Q07. Regarding Quality Control Pruning and Removal Checks:

On page 219 of its 2026-2028 WMP, BVES indicates that it performs 72 random checks to assess "the quality of recent vegetation clearance activities." On page 216 of its 2026-2028 WMP, BVES lists 72 as the sample size of circuit miles for Fall-in Mitigation and High-Risk Species (VM_8), and Clearance (VM_9) quality control activities.

a. Does BVES audit one circuit mile at each of the 72 check locations?
   i. If yes, how does BVES expand each of the 72 randomly-selected locations into a complete circuit mile? (e.g., the randomly-selected location is used as the starting point of the audited circuit mile)

   ii. If no, describe what the population and sample unit is for VM_8 and VM_9 quality control activities.

RESPONSE: The 72 randomly selected areas are not associated with each circuit mile that is part of the routine trimming. There are two QC activities that BVES conducts. The first is the contracted certified arborist conducts a QC 100% of the vegetation management crews work. The contracted forester is embedded on BVES's staff and is independent from the contracted vegetation crews (different company). The second QC (72 random QCs) is conducted by BVES employees. The population of the work is all vegetation work that is completed, that includes routine work and non-routine work. The minimum the sample units are at least 10% QC of all work completed.

Q08. Regarding Asset Inspection Risk Reduction Calculations in Table 8-1:

In Table 8-1, BVES provides an estimated percent risk reduction of 4.65 for each of its asset inspection programs (GD_22 to GD_28). Table 5-2 discusses risk mitigation factors, and states that Risk Mitigation = Bare Wire Circuit Miles *2.

a. Provide the percent risk reduction calculations for patrol inspections and detailed distribution inspections (GD_22 to GD_28) for 2026.

RESPONSE:
Q.08.a. The risk reductions noted in Table 8-1 were developed using Risk-Based Decision-

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Making Framework that aligns with the safety model approach for Small and Multi-Jurisdictional Utilities (SMJU) provided in CPUC D.19-04-020 issued May 6, 2019. This approach to risk management includes the basic tenets of the International Standardization Organization's "Risk Management – Principles and Guidelines" ("ISO 31000").

This Risk Register evaluates the enterprise risk reduction relative to the cost of the mitigation using the Risk Spend Efficiency (RSE) analysis. This analysis focuses on a review of ongoing and potential new projects to mitigate the primary risk event, which in this case is "Wildfire – Threats to Public Safety." The enterprise risk evaluation considers a reasonable worst-case scenario for the primary risk event. For each primary risk event, BVES determined the frequency of occurrence and impact scores using a qualitative risk assessment tool that utilizes a 7x7 logarithmic score matrix to assess risk based on the following factors:

- Personal and public safety
- System reliability impacts
- Regulatory compliance and legal implications
- Quality of service to customers
- Environmental impacts

Once likelihood and consequence are assigned values, risk (Wildfire and PSPS) is calculated using the following formula:

$$\text{Risk score} = \sum_{i=1}^{n} weight_i * frequency_i * 10^{impact_i}$$

For GD_22, the risk calculation is as follows:

					Risk Addressed:	Wildfire - Public Safety		Risk ID	A				
WMP Initiative Category	Grid Design, Operations, and Maintenance				Risk Reduction:	75,661							
Utility Initiative Name	Detailed inspections												
Utility Initiative Tracking ID	GD_22												
Period:	Ongoing	Duration (years)	Ongoing		Un-Mitigated Scores								
Description:	Inspections of overhead electric sub-transmistion and distribution lines, equipment, and right-of-way. Detailed Inspections are careful visual inspections and maintenance,				Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score	
Cost		Funding	O&M		4	6	7	7	7	7	6.9	1,626,498	
(Low):	$29,499	Type											
(High):				Other	Score Weighting								
		Source				12.1%	17.1%	7.2%	60.5%	3.1%			
			In Rates										
Percent Completed or Implemented:	100%	Comments			Mitigated Scores								
					Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score	
Mitigation converted to control:					4	5	7	7	7	5	6.9	1,550,837	
Yes						2213.8	311331.4	131607.4	1105121.7	563.0			

For GD_23, the risk calculation is as follows:

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WMP Initiative Category	Grid Design, Operations, and Maintenance
Utility Initiative Name	Patrol Inspections
Utility Initiative Tracking ID	GD_23
Period:	Ongoing
Duration (years)	Ongoing
Description:	Inspections of vegetation around and adjacent to electrical facilities and equipment that may be hazardous by growing, blowing, or falling into electrical facilities or equipment.
Cost (Low):	$68,830
Cost (High):	
Funding Type	O&M
Other	
Source	In Rates
Percent Completed or Implemented:	100%
Comments	
Mitigation converted to control:	Yes

Risk Addressed:	Wildfire - Public Safety	Risk ID	A
Risk Reduction:	75,661		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
Un-Mitigated Scores	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score
Mitigated Scores	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

For GD_24, the risk calculation is as follows:

WMP Initiative Category	Grid Design, Operations, and Maintenance
Utility Initiative Name	UAV Thermography Inspections
Utility Initiative Tracking ID	GD_24
Period:	Ongoing
Duration (years)	Ongoing
Description:	Inspections of overhead electric sub-transmission and distribution lines, equipment, and right-of-way. UAV Thermography Inspections are inspections of assets in the right-of-way using aerial (UAV) Thermography.
Cost (Low):	$308,475
Cost (High):	
Funding Type	O&M
Other	WMP
Source	In Rates
Percent Completed or Implemented:	100%
Comments	Cost split between Asset Inspection and Vegetation Management Inspection. Vegetation portion is 34% of total cost in rates, which is $233,678.
Mitigation converted to control:	Yes

Risk Addressed:	Wildfire - Public Safety	Risk ID	A
Risk Reduction:	75,661		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
Un-Mitigated Scores	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score
Mitigated Scores	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

For GD_25, the risk calculation is as follows:

WMP Initiative Category	Grid Design, Operations, and Maintenance
Utility Initiative Name	UAV HD Photography/Videography Inspections
Utility Initiative Tracking ID	GD_25
Period:	Ongoing
Duration (years)	Ongoing
Description:	Inspections of overhead electric sub-transmission and distribution lines, equipment, and right-of-way. UAV HD Photography/ Videography Inspections are inspections of assets in the right-of-way using aerial (UAV) HD photography
Cost (Low):	$308,475
Cost (High):	
Funding Type	O&M
Other	WMP
Source	In Rates
Percent Completed or Implemented:	100%
Comments	Cost split between Asset Inspection and Vegetation Management Inspection. Vegetation portion is 34% of total cost in rates, which is $233,678.
Mitigation converted to control:	Yes

Risk Addressed:	Wildfire - Public Safety	Risk ID	A
Risk Reduction:	75,661		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
Un-Mitigated Scores	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		

	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score
Mitigated Scores	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

For GD_26, the risk calculation is as follows:

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WMP Initiative Category	Grid Design, Operations, and Maintenance		
Utility Initiative Name	3rd Party Ground Patrol Inspections		
Utility Initiative Tracking ID	GD_26		
Period:	Ongoing	Duration (years)	Ongoing
Description:	Inspections of overhead electric sub-transmission and distribution lines, equipment, and right-of-way. 3rd Party Ground Patrol Inspections are Patrol Inspections performed by an independent 3rd Party and are visual		
Cost (Low): (High):	$123,963	Funding Type	O&M / Other
		Source	In Rates / WMP
Percent Completed or Implemented:	100%	Comments	Cost split between Asset Inspection and Vegetation Management Inspection. Vegetation portion is 50% of total cost in rates, which is $126,069.
Mitigation converted to control:	Yes		

Risk Addressed:	Wildfire - Public Safety	Risk ID	A					
Risk Reduction:	75,661							
Un-Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		
Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score
	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

For GD_27 the risk calculation is as follows:

WMP Initiative Category	Grid Design, Operations, and Maintenance		
Utility Initiative Name	Intrussive Pole Inspections		
Utility Initiative Tracking ID	GD_27		
Period:	Ongoing	Duration (years)	Ongoing
Description:	In accordance with GO 165, intrusive inspections of wood poles involve movement of soil, taking samples for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections or instrument reading.		
Cost (Low): (High):	$37,365	Funding Type	O&M / Other
		Source	In Rates
Percent Completed or Implemented:	100%	Comments	
Mitigation converted to control:	Yes		

Risk Addressed:	Wildfire - Public Safety	Risk ID	A					
Risk Reduction:	75,661							
Un-Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		
Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	MitigatedRisk Score
	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

For GD_28, the risk calculation is as follows:

WMP Initiative Category	Grid Design, Operations, and Maintenance		
Utility Initiative Name	Substation inspections		
Utility Initiative Tracking ID	GD_28		
Period:	Ongoing	Duration (years)	Ongoing
Description:	In accordance with GO 174, inspection of substations performed by qualified persons and according to the frequency established by the utility, including record-		
Cost (Low): (High):	$216,324	Funding Type	O&M / Other
		Source	In Rates
Percent Completed or Implemented:	100%	Comments	
Mitigation converted to control:	Yes		

Risk Addressed:	Wildfire - Public Safety	Risk ID	A					
Risk Reduction:	75,661							
Un-Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Risk Score
	4	6	7	7	7	7	6.9	1,626,498
Score Weighting		12.1%	17.1%	7.2%	60.5%	3.1%		
Mitigated Scores								
	Frequency	Reliability	Compliance	Quality of Service	Safety	Environmental	Impact Score	Mitigated Risk Score
	4	5	7	7	7	5	6.9	1,550,837
		2213.8	311331.4	131607.4	1105121.7	563.0		

Q09. Regarding UAV Videography/Photography Inspections:

a. Provide all supporting documentation for UAV videography/photography inspections, including:

i. Any drone operator instructions, processes, and requirements.
ii. Any inspector instructions, processes and requirements for photography/video review.

RESPONSE: See Document "2025 BVES Drone Collection Methodology" for information about the UAV inspections.

Q010. Regarding UAV Thermography Inspections:

a. Provide all supporting documentation for UAV thermography inspections, including:
   i. Any drone operator instructions, processes, and requirements
   ii. Any inspector instructions, processes and requirements for thermography review.
b. Discuss the methodology used by BVES to schedule thermography inspections, including whether factors such as circuit loading and/or ambient temperatures are considered.

RESPONSE: See document "DRG Infrared Scanning Guidelines" for information about the UAV Thermography.

Q011. Regarding Connector and Conductor Equipment Failure Rates:

In section 8.4 of its WMP, BVES provides the failure rates of various equipment types. BVES states that it has experienced four connector failures and four conductor failures in the past three years.

a. Does BVES track conductor failures separately from connector failures?
b. Discuss BVES's process for identifying and tracking equipment failures.

RESPONSE:

Q.011.a. Yes
Q.011.b. The source for the failure data was the BVES outage logs. BVES documents equipment failures for connectors and conductors in the Outage Log.

Q012. Regarding Risk Model Updates:

a. On page 56 of its 2026-2028 Base WMP, BVES states that it "currently utilizes a long- term extreme-event scenario developed in coordination with Technosylva" but the reference for where that is summarized is -noted as

"Error! Reference source not found." Provide this reference.

b. In Table 5-4: Summary of Risk Models, BVES notes that PEDS risk components are deferred to a future update (p. 58, BVES's 2026-2028 Base WMP).

   i. Provide the timeline for evaluating and implementing PEDS risk into its risk modeling.

   ii. Clarify in what "future update" BVES intends to have PEDS risk components completed.

RESPONSE:

a. The correct reference where the long-term extreme-event scenario is summarized in Table 5-3 on page 56 of the 2026-2028 Base WMP, and reproduced below:

Table 5-3

Scenario ID	Extreme-Event Scenario	Purpose
ES1	2030 Climate Conditions (mostly concerned with fuel levels and moisture)	Assess if climate change, as well as any resulting changes in wildfire consequence, may influence BVES's existing grid hardening strategy.

b.

   i. As stated on page 70 in Table 5-6 of the 2026-2028 Base WMP, proposed improvement RA-1-C to evaluate and implement PEDS risk into the Direxyon model that BVES utilizes is expected to occur in Q4 of 2026.

   ii. BVES expects to have the Table 5-4 PEDS risk sections updated in the 2026 yearly update to the WMP.

Q013. Regarding Risk Model Review and Validation:

On page 66 of its 2026-2028 Base WMP, BVES states: "a risk assessment improvement activity has been added to establish a process and protocol for 1) sharing of data, 2) validating that data used is correct, 3) establishing a data schema such that the correct 'source of truth' is used, and finally setting up a periodicity for data updates such that the data is received in timely manner."

a. Provide documentation relating to the risk assessment improvement activity discussed in the quotation above, including the process and protocols relating to the three components listed in the quotation above.

RESPONSE:

a. As stated on page 68 of the 2026-2028 Base WMP, this risk assessment activity

is identified as RA-2-A and will be developed in Q4 2025, as identified in Table 5-6.

Q014. Regarding Overall Utility Risk Scores:

BVES provides details on its prioritized areas and top risk circuits in Table 5-5 (p. 62, BVES's 2026-2028 Base WMP), Table 6-1 (pp. 75-77, BVES's 2026-2028 Base WMP) and Table 6-4 (pp. 97-98, BVES's 2026-2028 Base WMP).

a. The overall utility risk scores provided in Table 5.5 and Table 6-1 do not match Table 6-4, including the ranking of the top-risk circuits.
   i. Explain the discrepancies in overall utility risk scores between Table 5.5/Table 6-1 and Table 6-4.
   ii. Discuss how the overall utility risk scores in each table were calculated.

b. The risk ranking in Table 5-5 differs from the priority order in Table 6-1.
   iii. Explain why the rankings differ between Table 5-5 and 6-1.
   iv. Discuss how the ranking order for each table was determined.

c. Regarding Table 6-1:
   v. Provide the total overall utility risk for BVES's service territory used to calculate the percentages for each circuit.
   vi. Provide the total number of circuits within BVES's service territory used to determine the prioritized areas.
   vii. The following circuits list "None" as the associated risk drivers: Erwin Lake and Shay. List the risk drivers present along these circuits that are contributing to Erwin Lake and Shay being top risk circuits.

d. Regarding Table 6-4:
   viii. Provide the total overall utility risk for BVES's service territory based on the risk scores.
   ix. Provide the total number of circuits within BVES's service territory used to determine the top-risk circuits.

e. In response to BVES-23B-07 (p. D-381, BVES's 2026-2028 Base WMP), BVES lists the following as areas of highest risk:

- Holcomb 4kV (North Shore Big Bear City Area): Gird hardening planned for 2026.
- Boulder 4kV (Boulder Bay Area): Gird hardening planned for 2026 and 2028.
- North Shore 4kV (Fawnskin Area): Gird hardening planned for 2027 and 2028.
- Pioneer 4kV (Baldwin Lake Area): Gird hardening planned for 2027.
- Clubview 4kV (Moonridge Area): Gird hardening planned for 2028

   x. Table 5-5 lists Shay as the second top-risk circuit. Explain why Shay is not included in Table 6-4 and does not have any hardening planned from 2026 to 2028.

xi. Table 5-5 lists Goldmine as the fourth top-risk circuit. Explain why Goldmine is not included in Table 6-4 and does not have any hardening planned from 2026 to 2028.

xii. Explain why Pioneer is not included in Table 6-1.

RESPONSE:

a.

i. Unlike other tables, Table 6-4 was based solely off of the Fire Safety Circuit Matrix, since it is the only set of data with prior year calculations, as we have been improving our risk modelling capabilities with additional models.

ii. As stated in section 5.2.2.3 of the 2026-2028 Base WMP, Tables 5-5/6-1 utilized a normalized weighted average of several risk calculators including FireSight consequence, PSPS risk, and the Fire Safety Circuit Matrix, while Table 6-4 was based solely off of the Fire Safety Circuit Matrix.

b.

i. As stated on page 73 of the 2026-2028 Base WMP, feasibility constraints affect the priority of risk mitigation initiatives. For example, some circuits with significant consequence-driven risk have already undergone significant mitigation efforts, and it is infeasible to focus significant amounts of money for marginal reductions in risk. For example, although Shay circuit has a significant amount of risk due to a significant number of buildings in the area, its conductor has already been fully covered, and it is not feasible to prioritize it at this time.

ii. As stated on page 73 of the 2026-2028 Base WMP, Table 5-5 was ranked based on risk impact, while Table 6-1 took rankings from Table 5-5 as input, but also considered other factors such as jurisdictional considerations, cost, evacuation route prioritization, and 98th percentile acres burnt.

c.

i. The total overall utility risk is the sum of risk of all overhead circuits, for a total of 8.45 risk units.

ii. BVES used 23 circuits to determine prioritizations.

iii. Per BVES' methodology, risk scores are a combination of Fire Safety Circuit Matrix risk driver values and FireSight risk consequence values. For Erwin and Shay circuits, there is no risk from the Fire Safety Circuit Matrix, which focuses on the risk contribution of bare overhead conductors. The risk score is based off of FireSight consequences of 98th percentile acres burnt.

d.

i. In Figure 6-1 of the 2026-2028 Base WMP, the total annual risk is presented for the time period of 2019 through 2028. For convenience, the data are tabulated below:

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

115969	110745	90386	81829	74354	38662	34701	31469	28007	23667

ii. BVES used 23 circuits to determine prioritizations.

e.

i. As identified in Table 6-1 of the 2026-2028 Base WMP, Shay circuit is not a top-priority circuit at this time, as it is already fully covered.

ii. As identified in BVES-23-07, BVES used the FireSight model to prioritize grid hardening, and Goldmine circuit was not in the top ten highest risk circuits.

iii. As shown on page 77 of the 2026-2028 Base WMP, Pioneer circuit is included in Table 6-1.

END OF REQUEST