

Per the WSD's instructions for replies to the 02/26/2020 data request, Bear Valley Electric Service adopted the following color scheme in updating the relevant tables according to the items specified in the WSD's request:

Cells with new data are highlighted in green

Cells with modified data are highlighted in yellow

Bear Valley Electric Service additionally adopted the following color scheme to further clarify the changes made through the course of updating the utility's WMP and responding to the data request:

References to plan sections from the previous submission that no longer apply due to plan reformatting in alignment with Attachment 1 section headings and subheadings. ~~These changes are reflected as red text with strikethrough in the redlined workbook and removed from the clean version.~~

1 Persons responsible for executing the WMP

Provide an accounting of the responsibilities of the responsible person(s) executing the plan, including:

1. Executive level with overall responsibility
2. Program owners specific to each component of the plan

Ensure that the plan components described in (2) include an accounting for each of the WMP sections and subsections.

~~See BVES 2020 WMP, Section 1.2.~~

2.1 Lessons learned: how tracking metrics on the 2019 plan has informed the 2020 plan

Describe how the utility's plan has evolved since the 2019 WMP submission. Outline any major themes and lessons learned from the 2019 plan and subsequent implementation of the initiatives. In particular, focus on how utility performance against the metrics used has informed the utility's 2020 WMP.

~~See BVES 2020 WMP, Section 2.1~~

Table 1: Recent performance on progress metrics, last 5 years

#	Progress metric name		Annual performance					Unit(s)	Comments	
			2015	2016	2017	2018	2019			
1	Grid condition findings from inspection	Findings per mile of circuit in HFTD	Level 1	N/A - no data available	N/A - no data available	0.00000	0.00000	0.00949	Number of Level 1, 2, and 3 findings per mile of circuit in HFTD, and per total miles of circuit for each of the following inspection types: 1. Patrol inspections 2. Detailed inspections 3. Other inspection types	
			Level 2	N/A - no data available	N/A - no data available	0.40321	0.25615	0.36526		
			Level 3	N/A - no data available	N/A - no data available	3.34424	14.93762	0.82539		
		Patrol Inspections	Level 1	N/A - no data available	N/A - no data available	0.00000	0.00000	0.00949		
			Level 2	N/A - no data available	N/A - no data available	0.36526	0.23244	0.23718		
			Level 3	N/A - no data available	N/A - no data available	1.70296	12.86466	0.09962		
		Findings per total circuit miles by inspection type	Detailed Inspections	Level 1	N/A - no data available	N/A - no data available	0.00000	0.00000		0.00000
				Level 2	N/A - no data available	N/A - no data available	0.00000	0.00000		0.12808
				Level 3	N/A - no data available	N/A - no data available	0.00474	0.01423		0.72577
	Other Inspection Types	Level 1	N/A - no data available	N/A - no data available	0.00000	0.00000	0.00000			
		Level 2	N/A - no data available	N/A - no data available	0.03795	0.02372	0.00000			
Level 3		N/A - no data available	N/A - no data available	1.63654	2.05873	0.00000				
2	Vegetation clearance findings from inspection		N/A - no data available	N/A - no data available	N/A - no data available	N/A - no data available	0.02	Percentage of right-of-way with noncompliant clearance based on applicable rules and regulations at the time of inspection, as a percentage of all right-of-way inspected	2019 figure is from October to December. Unable to locate any data prior to October 2019 with the granularity needed to respond.	
3	Extent of grid modularization	1. In HFTD	144	144	144	144	144	Number of sectionalizing devices per circuit mile plus number of automated grid control equipment in: 1. HFTD 2. Non-HFTD	Entire BVES service territory is in HFTD 2 or 3.	
2. In Non-HFTD		N/A - BVES does not have any portions of its service territory in Non-HFTD	N/A - BVES does not have any portions of its service territory in Non-HFTD	N/A - BVES does not have any portions of its service territory in Non-HFTD	N/A - BVES does not have any portions of its service territory in Non-HFTD	N/A - BVES does not have any portions of its service territory in Non-HFTD	N/A - BVES does not have any portions of its service territory in Non-HFTD			
4	Data collection and reporting						97.10%	Percent of data requested in SDR and WMP collected in initial submission		

Note: Values for Table 1.1 "Grid condition findings from inspection" were calculated by dividing the total number of findings of each type by the total number of overhead circuit miles in BVES's service territory, assuming underground circuits are unaffected by wind conditions. Including underground circuit miles in this calculation would deflate the actual assessment of risk posed by wind and other wildfire-risk conditions.

Table 2: Recent performance on outcome metrics, last 5 years

Metric type	#	Outcome metric name	Annual performance					Units	Comments
			2015	2016	2017	2018	2019		
1. Near misses	1.a.	Number of all events (such as unplanned outages, faults, conventional blown fuses, etc.) that could result in ignition, by type according to utility provided list (total)	28	58	35	20	15	Number per year	
	1.b.	Number of all events (such as unplanned outages, faults, conventional blown fuses, etc.) that could result in ignition, by type according to utility provided list (normalized)	0.04553	0.01942	0.01057	0.00896	0.01124	Number per RFW circuit mile day per year	
	1.c.	Number of wires down (total)	0	3	0	0	3	Number of wires down per year	
	1.d.	Number of wires down (normalized)	0.00000	0.00100	0.00000	0.00000	0.00175	Number per RFW circuit mile day per year	
2. Utility inspection findings	2.a.	Number of Level 1 findings that could increase the probability of ignition discovered per circuit mile inspected	N/A - no data available	N/A - no data available	0	0	0	Average number of Level 1 findings that could increase the probability of ignition discovered by all inspections per circuit mile per year	Prior to 2017, inspection and other data which had been being maintained in a database system called Automated Line Patrol System (ALPS) were migrated to a new database system called "Partner". While the old database has been archived and retained, data prior to 2017 is not readily available. During that transition all level 1, 2 or 3 deficiencies had either been corrected or were entered into the new Partner system for tracking and remediation.
	2.b.	Number of Level 2 findings that could increase the probability of ignition discovered per circuit mile inspected	N/A - no data available	N/A - no data available	0	0	0	Average number of Level 2 findings that could increase the probability of ignition discovered by all inspections per circuit mile per year	
	2.c.	Number of Level 3 findings that could increase the probability of ignition discovered per circuit mile inspected	N/A - no data available	N/A - no data available	0	0	0	Average number of Level 3 findings that could increase the probability of ignition discovered by all inspections per circuit mile per year	
3. Customer hours of PSPS and other outages	3.a.	Customer hours of planned outages including PSPS (total)	1,467	2,112	88,412	6,725	782	Total customer hours of planned outages per year	
	3.b.	Customer hours of planned outages including PSPS (normalized)	2.8663	0.30717	26.69025	3.01434	0.58274	Total customer hours of planned outages per RFW circuit mile day per year	
	3.c.	Customer hours of unplanned outages, not including PSPS (total)	73,785	120,310	155,513	73,619	121,869	Total customer hours of unplanned outages per year	
	3.d.	Customer hours of unplanned outages, not including PSPS (normalized)	119.98873	43.29752	46.96267	32.99817	91.28356	Total customer hours of unplanned outages per RFW circuit mile day per year	
4. Utility-ignited wildfire fatalities	4.e.	Increase in System Average Interruption Duration Index (SAIDI)	0	0	0	0	0	Change in minutes compared to the previous year	
	4.f.	Fatalities due to utility-ignited wildfire (total)	0	0	0	0	0	Number of fatalities per year	BVES has not had any utility-ignited wildfires
5. Accidental deaths resulting from utility wildfire mitigation initiatives	4.g.	Fatalities due to utility-ignited wildfire (normalized)	0	0	0	0	0	Number of fatalities per RFW circuit mile day per year	BVES has not had any utility-ignited wildfires
	5.a.	Deaths due to utility wildfire mitigation activities (total)	0	0	0	0	0	Number of fatalities per year	
6. OSHA-reportable injuries from utility wildfire mitigation initiatives	6.a.	OSHA-reportable injuries due to utility wildfire mitigation activities (total)	0	0	0	1	0	Number of OSHA-reportable injuries per year	On July 19, 2018, a line worker and the owner of Teale Tree Services made contact with a high voltage power line and sustained non-fatal injuries. The injury did not require reporting under Cal/OSHA guidelines but BVES chose to report the incident.
	6.b.	OSHA-reportable injuries due to utility wildfire mitigation activities (normalized)	0	0	0	4.74361	0	Number of OSHA-reportable injuries per year per 1000 line miles of grid	BVES has only 210.81 miles of OH lines. Navigant Consulting interpreted this question to mean BVES would have 0.21081 "thousand line miles of grid."
7. Value of assets destroyed by utility-ignited wildfire, listed by asset type	7.a.	Value of assets destroyed by utility-ignited wildfire (total)	0	0	0	0	0	Dollars of damage or destruction per year	BVES has not had any utility-ignited wildfires
	7.b.	Value of assets destroyed by utility-ignited wildfire (normalized)	0	0	0	0	0	Dollars of damage or destruction per RFW circuit mile day per year	BVES has not had any utility-ignited wildfires
8. Structures damaged or destroyed by utility-ignited wildfire	8.a.	Number of structures destroyed by utility-ignited wildfire (total)	0	0	0	0	0	Number of structures destroyed per year	BVES has not had any utility-ignited wildfires
	8.b.	Number of structures destroyed by utility-ignited wildfire (normalized)	0	0	0	0	0	Number of structures destroyed per RFW circuit mile day per year	BVES has not had any utility-ignited wildfires
9. Acreage burned by utility-ignited wildfire	9.a.	Acreage burned by utility-ignited wildfire (total)	0	0	0	0	0	Acrees burned per year	BVES has not had any utility-ignited wildfires
	9.b.	Acreage burned by utility-ignited wildfire (normalized)	0	0	0	0	0	Acrees burned per RFW circuit mile day per year	BVES has not had any utility-ignited wildfires
10. Number of utility wildfire ignitions	10.a.	Number of ignitions (total) according to wildfire ignition data reporting requirement	0	0	0	0	0	Number per year	BVES had not had any ignitions
	10.b.	Number of ignitions (normalized)	0	0	0	0	0	Number per RFW circuit mile day per year	BVES had not had any ignitions
	10.c.	Number of ignitions in HFTD (total)	0	0	0	0	0	Number in HFTD per year	BVES had not had any ignitions
	10.c.1.	Number of ignitions in HFTD Zone 1	0	0	0	0	0	Number in HFTD Zone 1 per year	BVES had not had any ignitions
	10.c.2.	Number of ignitions in HFTD Zone 2	0	0	0	0	0	Number in HFTD Zone 2 per year	BVES had not had any ignitions
	10.c.3.	Number of ignitions in HFTD Tier 3	0	0	0	0	0	Number in HFTD Tier 3 per year	BVES had not had any ignitions
	10.d.	Number of ignitions in non-HFTD (total)	0	0	0	0	0	Number in non-HFTD per RFW circuit mile day per year	BVES had not had any ignitions
	10.d.1.	Number of ignitions in HFTD Zone 1 (normalized)	0	0	0	0	0	Number in HFTD Zone 1 per RFW circuit mile day per year	BVES had not had any ignitions
	10.d.2.	Number of ignitions in HFTD Tier 2 (normalized)	0	0	0	0	0	Number in HFTD Tier 2 per RFW circuit mile day per year	BVES had not had any ignitions
	10.d.3.	Number of ignitions in HFTD Tier 3 (normalized)	0	0	0	0	0	Number in HFTD Tier 3 per RFW circuit mile day per year	BVES had not had any ignitions
11. Critical infrastructure impacted	11.e.	Number of ignitions in non-HFTD (normalized)	0	0	0	0	0	Number in non-HFTD per RFW circuit mile day per year	BVES had not had any ignitions
	11.a.	Critical infrastructure impacted by PSPS	0	0	0	0	0	Number of critical infrastructure (in accordance with D.19-05-042) locations impacted per hour multiplied by hours offline per year	BVES has not needed to initiate any PSPS events
	11.b.	Critical infrastructure impacted by PSPS (normalized)	0	0	0	0	0	Number of critical infrastructure (in accordance with D.19-05-042) locations impacted per hour multiplied by hours offline per RFW circuit mile day per year	BVES has not needed to initiate any PSPS events

Table 9: List and description of additional metrics, last 5 years

Metric Category	Metric	Performance				Units	Underlying assumptions	Third-party validation	
		2015	2016	2017	2019				
Overall Plan	Number of reportable fire incidents (D14-G2-015 Appendix C: Fire Incident Data Collection Plan)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of incidents	Assess overall effectiveness of the plan	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
Infrastructure	Number of bare line contact with vegetation	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of contact events	Assess if plan has reduced risk events	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of the wire down events	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of events	Assess if plan has reduced risk events	
	Number of conventional blown fuse events	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	1	Number of events	Assess if plan has reduced risk events	
	Number of poles assessed	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	553	Number of poles	Determine if plan is on schedule	
	Number of poles that failed assessment (wind loading, age, deterioration, unfixable GO 95 votator)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	384	Number of poles	Determine if plan is on schedule	
	Number of poles replaced as a result of failed assessments	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	215	Number of poles	Determine if plan is on schedule	
	Number of poles remediated as a result of failed assessments	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	61	Number poles	Determine if plan is on schedule	
	Number of Tree Attachments Removed	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	43	Number of attachments	Determine if plan is on schedule	
	Number of new poles installed as a result of Tree Attachments Removed	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	9	Number of poles	Determine if plan is on schedule	
	Length of Bare Wire Covered (Circuit Miles)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	1	Length of wire (circuit miles)	Determine if plan is on schedule	
System Hardening	Number of conventional fuses replaced by current testing fuses	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	285	Number of fuses	Determine if plan is on schedule	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of conventional fuses replaced by fused trip sawers (vacuum style)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	8	Number of fuses	Determine if plan is on schedule	
	Number of Conventional fuses in system	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	3,374	Number of fuses	Assess overall system hardening	
	Percent of 34.5 kV System that is Overhead Bare Wire	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	93.93%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 34.5 kV System that is Underground	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	2.74%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 34.5 kV System that is Covered Wire	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	3.33%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Overhead Bare Wire	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	71.56%	Percent of 4 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Underground	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	28.44%	Percent of 4 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Covered Wire	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0.00%	Percent of 4 kV circuit miles	Assess overall system hardening	
	Number of Tree Attachments Remaining in System	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	973	Number of attachments	Assess overall system hardening	
Operations	Number of "urgent" Vegetation Orders issued (must be corrected w/30 days)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	34	Number of orders	Assess if vegetation management plan has reduced risk events	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of "urgent" Vegetation Orders Outstanding	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of orders	Determine if plan is on schedule	
	Number of Trees Trimmed	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	5,378	Number of trees	Determine if plan is on schedule	
	Number of Trees Removed	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	87	Number of trees	Determine if plan is on schedule	
	Percent of OH System Cleared by Tree Trimming Crews	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	30.62%	Percent of OH system	Determine if plan is on schedule	
	Number of Level 1 GO-95 Potential Non-Compliance (immediate risk of high potential impact to safety or reliability) items identified	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of items	Determine if plan is on schedule	
	Number of Level 1 GO-95 Potential Non-Compliance (immediate risk of high potential impact to safety or reliability) items Outstanding	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of items	Determine if plan is on schedule	
	Number of Level 2 GO-95 Potential Non-Compliance (any other risk of at least moderate potential impact to safety or reliability) items identified	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	52	Number of items	Determine if plan is on schedule	
	Number of Level 2 GO-95 Potential Non-Compliance (any other risk of at least moderate potential impact to safety or reliability) items Outstanding	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number of items	Determine if plan is on schedule	
	Number of Level 3 GO-95 Potential Non-Compliance (any risk of low potential impact to safety or reliability) items identified	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	139	Number items	Determine if plan is on schedule	
	Number of Level 3 GO-95 Potential Non-Compliance (any risk of low potential impact to safety or reliability) items Outstanding	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	0	Number items	Determine if plan is on schedule	
	Number of Circuit Miles Patrolled per GO-165	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	118.61	Number of Circuit Miles	Determine if plan is on schedule	
	Number of Circuit Miles Inspected per GO-165 (detailed inspection)	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	12	Number of Circuit Miles	Determine if plan is on schedule	
Number of Poles Intensively Inspected	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	46	Number of Poles	Determine if plan is on schedule		
Number of Poles Falling Intensive Inspection	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	N/A - metrics not recorded prior to 2019	9	Number of Poles	Determine if plan is on schedule		

	Number of Circuit Miles of LIDAR Survey	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	Number of Circuit Miles	Determine if plan is on schedule	
	Number of LIDAR trouble spots	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	Number of spots	Determine if plan is on schedule	
	Number of Circuit Miles of Exacter Survey	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	120	Number of Circuit Miles	Assess if communications plan has reduced customer concerns and risk events	
	Number of Exacter trouble spots	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	10	Number of trouble spots	Assess outage impact on customers as a result of PSPS	
Customer Service	Number of Customer Service Calls about Tree Trimming	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	Number of Calls	Monitor changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVE's GIS Database, staff interviews, as well as spot-checking select items for confirmation of status.
	SADDI due to PSPS	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	System Average Interruption Duration Index	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
Weather Conditions	Number of NFDRS "Very Dry" and "Dry" Days	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	150	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVE's GIS Database, staff interviews, as well as spot-checking select items for confirmation of status.
PSPS	Number of PSPS Events	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	Number of Events	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVE's GIS Database, staff interviews, as well as spot-checking select items for confirmation of status.
	Maximum recorded sustained winds Recorded by NWS	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	33	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded sustained winds Recorded by BVE's Weather Stations	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	77.8	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded wind gusts Recorded by NWS	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	53	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded wind gusts Recorded by BVE's Weather Stations	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	77.8	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of sustained high winds (number of days sustained wind > 50 mph) recorded by NWS	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	0	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of sustained high winds (number of days sustained wind > 50 mph) recorded by BVE's weather stations	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	2	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of high wind gusts (number of days wind gusts > 50 mph) recorded by NWS	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	1	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of high wind gusts (number of days wind gusts > 50 mph) recorded by BVE's weather stations	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	N/A - metric not recorded prior to 2019 WMP	2	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	

Note: Data from 2015-2018 is unavailable as these metrics were not recorded prior to implementation of the current (2019) WMP, which took effect June 2019.

Table 4: List and description of program targets, last 5 years

Metric Category	Metric	Program target	2019 performance	Units	Underlying assumptions	Third-party validation
Overall Plan	Number of reportable fire incidents (D14-02-015 Appendix C: Fire Incident Data Collection Plan)	0	0	Number of incidents	Assess overall effectiveness of the plan	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
Infrastructure	Number of bare line contact with vegetation	<5	0	Number of contact events	Assess if plan has reduced risk events	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of live wire down events	<1	0	Number of events	Assess if plan has reduced risk events	
	Number of conventional blown fuse events	<5	1	Number of events	Assess if plan has reduced risk events	
	Number of poles assessed	500	553	Number of poles	Determine if plan is on schedule	
	Number of poles that failed assessment (wind loading, age, deterioration, unfixable GO-95 violation)	N/A - this program does not have a specific target	384	Number of poles	Determine if plan is on schedule	
	Number of poles replaced as a result of failed assessments	N/A - this program does not have a specific target	215	Number of poles	Determine if plan is on schedule	
	Number of poles remediated as a result of failed assessments	N/A - this program does not have a specific target	61	Number of poles	Determine if plan is on schedule	
	Number of Tree Attachments Removed	75	43	Number of attachments	Determine if plan is on schedule	
	Number of new poles installed as a result of Tree Attachments Removed	N/A - this program does not have a specific target	9	Number of poles	Determine if plan is on schedule	
	Length of Bare Wire Covered (Circuit Miles)	1	1	Length of wire (circuit miles)	Determine if plan is on schedule	
System Hardening	Number of conventional fuses replaced by current limiting fuses	1,288	583	Number of fuses	Determine if plan is on schedule	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of conventional fuses replaced by fused trip savers (Natum style)	314	29	Number of fuses	Determine if plan is on schedule	
	Number of Conventional fuses in system	N/A - this program does not have a specific target	3,374	Number of fuses	Assess overall system hardening	
	Percent of 34.5 kV System that is Overhead Bare Wire	N/A - this program does not have a specific target	93.93%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 34.5 kV System that is Underground	N/A - this program does not have a specific target	2.74%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 34.5 kV System that is Covered Wire	N/A - this program does not have a specific target	3.33%	Percent of 34.5 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Overhead Bare Wire	N/A - this program does not have a specific target	71.56%	Percent of 4 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Underground	N/A - this program does not have a specific target	28.44%	Percent of 4 kV circuit miles	Assess overall system hardening	
	Percent of 4 kV System that is Covered Wire	N/A - this program does not have a specific target	0	Percent of 4 kV circuit miles	Assess overall system hardening	
	Number of Tree Attachments Remaining in System	N/A - this program does not have a specific target	973	Number of attachments	Assess overall system hardening	
Operations	Number of "Urgent" Vegetation Orders issued (must be corrected w/30 days)	N/A - this program does not have a specific target	34	Number of orders	Assess if vegetation management plan has reduced risk events	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of "Urgent" Vegetation Orders Outstanding	0	0	Number of orders	Determine if plan is on schedule	
	Number of Trees Trimmed	N/A - this program does not have a specific target	5378	Number of trees	Determine if plan is on schedule	
	Number of Trees Removed	N/A - this program does not have a specific target	87	Number of trees	Determine if plan is on schedule	
	Percent of OH System Cleared by Tree Trimming Crews	0.15	0.306122449	Percent of OH system	Determine if plan is on schedule	
	Number of Level 1 GO-95 Potential Non-Compliance (Immediate risk of high potential impact to safety or reliability) Items Identified	0	0	Number of Items	Determine if plan is on schedule	
	Number of Level 1 GO-95 Potential Non-Compliance (Immediate risk of high potential impact to safety or reliability) Items Outstanding	0	0	Number of Items	Determine if plan is on schedule	
	Number of Level 2 GO-95 Potential Non-Compliance (Any other risk of at least moderate potential impact to safety or reliability) Items Identified	<50	52	Number of Items	Determine if plan is on schedule	
	Number of Level 2 GO-95 Potential Non-Compliance (Any other risk of at least moderate potential impact to safety or reliability) Items Outstanding	0	0	Number of Items	Determine if plan is on schedule	
	Number of Level 3 GO-95 Potential Non-Compliance (Any risk of low potential impact to safety or reliability) Items Identified	<1500	139	Number Items	Determine if plan is on schedule	
	Number of Level 3 GO-95 Potential Non-Compliance (Any risk of low potential impact to safety or reliability) Items Outstanding	0	0	Number Items	Determine if plan is on schedule	
	Number of Circuit Miles Patrolled per GO-165	118	118.61	Number of Circuit Miles	Determine if plan is on schedule	
	Number of Circuit Miles Inspected per GO-165 (detailed inspection)	12	12	Number of Circuit Miles	Determine if plan is on schedule	
	Number of Poles Intrusively Inspected	45	46	Number of Poles	Determine if plan is on schedule	
	Number of Poles Falling Intrusive Inspection	NA	9	Number of Poles	Determine if plan is on schedule	
Number of Circuit Miles of LIDAR Survey	211	0	Number of Circuit Miles	Determine if plan is on schedule		
Number of LIDAR trouble spots	N/A - this program does not have a specific target	0	Number of spots	Determine if plan is on schedule		
Number of Circuit Miles of Exacter Survey	<30	120	Number of Circuit Miles	Assess if communications plan has reduced customer concerns and risk events		
Number of Exacter trouble spots	N/A - this program does not have a specific target	10	Number of trouble spots	Assess outage impact on customers as a result of PSPS		
Customer Service	Number of Customer Service Calls about Tree Trimming	N/A - this program does not have a specific target	0	Number of Calls	Monitor changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	SAIDI due to PSPS	N/A - this program does not have a specific target	0	System Average Interruption Duration Index	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
Weather Conditions	Number of NDRS "Very Dry" and "Dry" Days	N/A - this program does not have a specific target	150	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Number of PSPS Events	N/A - this program does not have a specific target	0	Number of Events	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded sustained winds Recorded by NWS	N/A - this program does not have a specific target	33	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	Contracted 3rd party analysts or academic researchers could review open as well as closed work orders, BVES GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Maximum recorded sustained winds Recorded by BVES Weather Stations	N/A - this program does not have a specific target	77.8	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded wind gusts Recorded by NWS	N/A - this program does not have a specific target	53	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Maximum recorded wind gusts Recorded by BVES Weather Stations	N/A - this program does not have a specific target	77.8	Miles per Hour	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	

PSPS	Frequency of sustained high winds (number of days sustained wind > 50 mph) recorded by NWS	N/A - this program does not have a specific target	0	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	academic researchers could review open as well as closed work orders, BVE5 GIS databases, staff interviews, as well as spot-checking select items for confirmation of status.
	Frequency of sustained high winds (number of days sustained wind > 50 mph) recorded by BVE5 weather stations	N/A - this program does not have a specific target	2	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of high wind gusts (number of days wind gusts > 50 mph) recorded by NWS	N/A - this program does not have a specific target	1	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	
	Frequency of high wind gusts (number of days wind gusts > 50 mph) recorded by BVE5 weather stations	N/A - this program does not have a specific target	2	Number of Days	Monitor the need for PSPS events over time as an indicator of changing climatic and weather patterns	

Note: The "2019 Performance" column only captures data from June 2019 (2019 WMP implementation start) to January 2020. Some "Program Targets" are estimates for May 2020 (2019 WMP end) based on June 2019-January 2020 performance.

Table 6: OSHA-reportable injuries due to utility wildfire mitigation initiatives, last 5 years

Activity	Victim															Total
	Full-time employee					Contractor					Member of public					
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
Inspection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vegetation management	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Utility fuel management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grid hardening	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Note: On July 19, 2018, a line worker and the owner of Teele Tree Services made contact with a high voltage power line and sustained non-fatal injuries. The injury did not require reporting under CalOSHA guidelines but BVES chose to report the incident.

Table 7: Methodology for potential impact of ignitions
 Response to WSD data request item BVES-43879-B-135

List of all data inputs used in impact simulation	Sources of data inputs	Data selection and treatment methodologies	Assumptions, including SME input	Equation(s), functions, or other algorithms used to obtain output	Output type(s), e.g., wind speed model	Comments
<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>	<p>N/A - Bear Valley Electric Service does not have a proprietary model or methodology for evaluating the potential impact of ignitions. The utility's Subject Matter Expert evaluates the frequency of potential ignition events versus a set of impact categories (reliability, compliance, quality of service, safety and environmental) to develop total risk impact and scores.</p>

Table 8: Map file requirements for recent and modelled conditions of utility service territory, last 5 years

Layer name	Measurements	2015	2016	2017	2018	2019	Average	Units	Attachment location	Comments
Recent weather patterns	Average annual number of Red Flag Warning days per square mile across service territory	0.0912	0.4427	0.4909	0.3307	0.1979	0.3107	Area, days, square mile resolution		BVES's service territory is 32 square miles
	Average 99 th percentile wind speed and prevailing direction (actual)	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	Area, miles per hour, at a square mile resolution or better, noting where measurements are actual or interpolated	N/A - BVES is unable to provide this data at this time	BVES is unable to provide this data for each year at this time.
	Average 99 th percentile wind speed and prevailing direction (actual)	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time	N/A - BVES is unable to provide this data at this time			
Recent drivers of ignition probability	Date of recent ignitions categorized by ignition probability driver	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	Point, GPS coordinate, days, square mile resolution	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	BVES has not had any recent ignitions
Recent use of PSPS	Duration of PSPS events and area of the grid affected in customer hours per year	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	Area, customer hours, square mile resolution	N/A - No event of this type occurred during the 2015 - 2019 period; not applicable.	BVES has not had any recent use of PSPS

Note:
BVES is unable to provide the above requested data in GIS map file format at

Table 10: Weather patterns, last 5 years
 Response to WSD data request item BVES-43879-I-143

Weather measurement	2015	2016	2017	2018	2019	5-year historical average	Unit(s)
Red Flag Warning days	614.93	2,986.55	3,311.40	2,231.00	1,335.06	2,095.79	RFW circuit mile days per year
Days rated at the top 30% of proprietary fire potential index or similar fire risk index measure	107	151	118	129	87	118.40	Circuit mile days where proprietary measure rated above top 30% threshold per year
95 th percentile wind conditions	5,691.87	8,221.59	8,643.21	6,956.73	14,967.51	8,896.18	Circuit mile days with wind gusts over 95th percentile historical (meaning the prior 10 years, 2005-2014) conditions per year
99 th percentile wind conditions	1,897.29	2,318.91	2,318.91	1,686.48	6,535.11	2,951.34	Circuit mile days with wind gusts over 99th percentile historical (meaning the prior 10 years, 2005-2014) conditions per year
Other	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time	N/A - Bear Valley Electric Service cannot provide data on any other weather patterns to the specificity requested at this time

Note:
 BVES uses a contracted meteorologist that integrates data from the NFDRS, National Weather Service, and local real-time data from BVES' distributed weather stations (to account for local micro-climates) to ultimately assess relative local fire danger and risk. Reports are normally given weekly, and more often -- up to several times a day -- during heightened threat conditions. Operations personnel and leadership receive automated real-time alerts from BVES' weather stations when local winds exceed thresholds.

Navigant Consulting, Inc. (Navigant) assessed the NFDRS and estimated fire ratings of Brown ("Very Dry") or more severe as falling within the top 30% of the NFDRS.

When calculating circuit-mile days, Navigant multiplied the corresponding metric (RFW days, 95th/99th percentile wind conditions days) by the total number of overhead circuit miles in BVES' service territory, assuming that underground circuit miles are unaffected by wind conditions. Including underground circuit miles in this calculation would deflate the actual assessment of risk posed by wind and other wildfire-risk conditions. When a Red Flag Warning is issued for the San Bernardino Mountains, - including Big Bear Valley, which encompasses the entirety of BVES' service territory - the Warning applies to 100% of BVES' service territory.

Table 11: Key recent drivers of ignition probability, last 5 years

Incident type by ignition probability driver	Near misses tracked (y/n)?	Number of incidents per year							Average percentage probability of ignition per incident						Number of ignitions per year from this driver					
		2015	2016	2017	2018	2019	Average	2015	2016	2017	2018	2019	Average	2015	2016	2017	2018	2019	Average	
Contact from object	All types of object contact	Y	6	35	12	8	4	13	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Animal contact	Y	0	0	1	1	1	0.6	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Balloon contact	Y	0	1	0	0	0	0.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Veg. contact	Y	6	34	11	7	3	12.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Vehicle contact	Y	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
All types of equipment / facility failure	All types	Y	40	40	42	23	16	32.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Capacitor bank failure	Y	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Conductor failure—all	Y	0	3	0	0	3	1.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Conductor failure—wires down	Y	0	3	0	0	3	1.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Fuse failure—all	Y	18	15	20	12	4	13.8	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Fuse failure—conventional blown fuse	Y	18	15	20	10	4	13.4	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Lightning arrester failure	Y	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Switch failure	Y	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Transformer failure	Y	4	4	2	1	2	2.6	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
	Wire-to-wire contact / contamination	Y	0	0	1	1	2	0.8	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0
Other	Y	0	1	0	0	0	0.2	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	

Note: In 2018, an umbrella was caught in one of BVES's overhead distribution lines.

Table 12: Recent use of PSPS, last 5 years

PSPS characteristic	2015	2016	2017	2018	2019	Unit(s)
Frequency of PSPS events (total)	0	0	0	0	0	Number of instances where utility operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability, per year
Frequency of PSPS events (normalized)	0	0	0	0	0	Number of instances where utility operating protocol requires de-energization of a circuit or portion thereof in order to reduce ignition probability, per RFW circuit mile day per year
Scope of PSPS events (total)	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	Circuit-events, measured in number of events multiplied by number of circuits de-energized per year
Scope of PSPS events (normalized)	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	Circuit-events, measured in number of events multiplied by number of circuits targeted for de-energization per RFW circuit mile day per year
Duration of PSPS events (total)	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	Customer hours per year
Duration of PSPS events (normalized)	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	N/A - BVES did not have any PSPS events in this year	Customer hours per RFW circuit mile day per year
Other	N/A - no other PSPS-related data to report	N/A - no other PSPS-related data to report	N/A - no other PSPS-related data to report	N/A - no other PSPS-related data to report	N/A - no other PSPS-related data to report	N/A - no other PSPS-related data to report

Note: BVES has not had any recent use of PPS over the 2015-2019 period.

Table 14: Summary data on weather station count

Weather station count type	Current count	Unit(s)
Number of weather stations (total)	11	Total number located in service territory and operated by utility
Number of weather stations (normalized)	0.0522	Total number located in service territory and operated by utility, divided by total number of circuit miles in utility service territory
Number of weather stations in non-HFTD (total)	0	Total number located in non-HFTD service territory and operated by utility
Number of weather stations in non-HFTD (normalized)	0	Total number located in non-HFTD service territory and operated by utility, divided by total number of circuit miles in non-HFTD service territory
Number of weather stations in HFTD Zone 1 (total)	0	Total number located in HFTD Zone 1 service territory and operated by utility
Number of weather stations in HFTD Zone 1 (normalized)	0	Total number located in HFTD Zone 1 service territory and operated by utility, divided by total number of circuit miles in HFTD Zone 1 service territory
Number of weather stations in HFTD Tier 2 (total)	10	Total number located in HFTD Tier 2 service territory and operated by utility
Number of weather stations in HFTD Tier 2 (normalized)	0.0477	Total number located in HFTD Tier 2 service territory and operated by utility, divided by total number of circuit miles in HFTD Tier 2 service territory
Number of weather stations in HFTD Tier 3 (total)	1	Total number located in HFTD Tier 3 service territory and operated by utility
Number of weather stations in HFTD Tier 3 (normalized)	0.7874	Total number located in HFTD Tier 3 service territory and operated by utility, divided by total number of circuit miles in HFTD Tier 3 service territory

Note:

The utility's service territory is entirely rural and either HFTD Tier 2 or Tier 3.

Circuit miles were calculated as the total overhead circuit miles, assuming that underground circuit miles are unaffected by wind conditions. Including underground circuit miles in this calculation would deflate the actual assessment of risk posed by wind and other wildfire-risk conditions.

Table 15: Summary data on fault indicator count

Fault indicator count type	Current count	Unit(s)
Number of fault indicators (total)	87	Total number located in service territory and operated by utility
Number of fault indicators (normalized)	0.4127	Total number located in service territory and operated by utility, divided by total number of circuit miles in utility service territory
Number of fault indicators in non-HFTD (total)	0	Total number located in non-HFTD service territory and operated by utility
Number of fault indicators in non-HFTD (normalized)	0	Total number located in non-HFTD service territory and operated by utility, divided by total number of circuit miles in non-HFTD service territory
Number of fault indicators in HFTD Zone 1 (total)	0	Total number located in HFTD Zone 1 service territory and operated by utility
Number of fault indicators in HFTD Zone 1 (normalized)	0	Total number located in HFTD Zone 1 service territory and operated by utility, divided by total number of circuit miles in HFTD Zone 1 service territory
Number of fault indicators in HFTD Tier 2 (total)	87	Total number located in HFTD Tier 2 service territory and operated by utility
Number of fault indicators in HFTD Tier 2 (normalized)	0.4152	Total number located in HFTD Tier 2 service territory and operated by utility, divided by total number of circuit miles in HFTD Tier 2 service territory
Number of fault indicators in HFTD Tier 3 (total)	0	Total number located in HFTD Tier 3 service territory and operated by utility
Number of fault indicators in HFTD Tier 3 (normalized)	0	Total number located in HFTD Tier 3 service territory and operated by utility, divided by total number of circuit miles in HFTD Tier 3 service territory

Note: The utility's service territory is entirely rural and either HFTD Tier 2 or Tier 3.

Circuit miles were calculated as the total overhead circuit miles, assuming that underground circuit miles are unaffected by wind conditions. Including underground circuit miles in this calculation would deflate the actual assessment of risk posed by wind and other wildfire-risk conditions.

In highly rural areas	Circuit miles of overhead transmission lines	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Circuit miles of overhead distribution lines	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Circuit miles of overhead transmission lines in WUI	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Circuit miles of overhead distribution lines in WUI	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Number of substations	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Number of substations in WUI	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.
	Number of weather stations	N/A - Bear Valley Electric Service has not previously tracked weather stations within the WUI but will do so going forward. does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service has not previously tracked weather stations within the WUI but will do so going forward. does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service has not previously tracked weather stations within the WUI but will do so going forward. does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service has not previously tracked weather stations within the WUI but will do so going forward. does not have any highly rural areas. The utility's service territory is entirely rural.
	Number of weather stations in WUI	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.	N/A - Bear Valley Electric Service does not have any highly rural areas. The utility's service territory is entirely rural.

Transmission lines refer to all lines at or above 65kV, and distribution lines refer to all lines below 65kV.

Note: The utility does not have any transmission lines as all of its lines are below 65kV.

The utility does not plan to add or remove any overhead distribution lines.

BVES does not track which portions of its distribution system and other utility-owned infrastructure or assets are located in WUI-designated areas.

The utility does not have any urban or highly rural areas. BVES' entire service territory is rural.

Table 18: Key drivers of ignition probability

Ignition probability drivers		Number of incidents per year (according to 5-year historical average)	Average likelihood of ignition per incident	Ignitions from this driver (according to 5-year historical average)				
				Total	In non-HFTD	In HFTD Zone 1	In HFTD Tier 2	In HFTD Tier 3
Contact from object	All types of object contact	13	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Animal contact	0.6	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Balloon contact	0.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Vegetation contact	12.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Vehicle contact	0	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
All types of equipment / facility failure	All types	32.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Capacitor bank failure	0	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Conductor failure—all	1.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Conductor failure—wires down	1.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Fuse failure—all	13.8	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Fuse failure—conventional blown fuse	13.4	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Lightning arrestor failure	0	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Switch failure	0	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
	Transformer failure	2.6	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0
Wire-to-wire contact / contamination	0.8	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0	
Other	0.2	0%	0	N/A - the utility's entire Service Territory is either HFTD 2 or 3	N/A - the utility's entire Service Territory is either HFTD 2 or 3	0	0	

Note: The utility's service territory is in either HFTD Tier 2 or Tier 3

4.1 The Objectives of the Plan

The objectives of the plan shall, at a minimum, be consistent with the requirements of California Public Utilities Code §8386(a). Describe utility WMP objectives, categorized by each of the following timeframes:

- Before the upcoming wildfire season, as defined by the California Department of Forestry and Fire Protection (CAL FIRE),
- Before the next annual update,
- Within the next 3 years, and
- Within the next 10 years.

~~See BVES 2020 WMP, Sections 4.1 and 4.3 with initiatives detailed in Chapter 5 of the WMP~~

4.2.1 Service territory fire-threat evaluation and ignition risk trends

Discuss fire-threat evaluation of the service territory to determine whether an expanded High Fire Threat District (HFTD) is warranted (i.e., beyond existing Tier 2 and Tier 3 areas). This section shall include a discussion of any fire threat assessment of its service territory performed by the electrical corporation. In the event that the electrical corporation's assessment determines the fire threat rating for any part of its service territory is insufficient (i.e., the actual fire threat is greater than what is indicated in the CPUC Fire Threat Map and High Fire Threat District designations), the corporation shall identify those areas for consideration of HFTD modification, based on the new information or environmental changes. To the extent this identification relies upon a meteorological or climatological study, a thorough explanation and copy of the study shall be included.

BVES has not performed any study in 2019 to determine whether expansion of the HFTD tiers are necessary, though is aware of the need to reevaluate these designations from time to time and will consider this effort in subsequent WMP filings. BVES operates with the inherent risk factor of the service area's mountainous, alpine terrain, which makes up Tier 2 and Tier 3 regions of the HFTD. Field operational practices that include fire-threat conditions/stipulations are considered as part of general business practice. BVES did not meet trigger thresholds to initiate a PSPS event during the 2019 fire season, leading to the understanding that the Commission has suitably mapped the fire threat profile for the service territory at this time.

An immediate activity the utility will pursue before the next wildfire season will be addressing the Wildland Urban Interface (WUI) designations, as the utility has not previously tracked these zones in wildfire mitigation planning. BVES understands that the risk area for the WUI maps atop the Tier 2 and 3 designations from the HFTD. The utility does not have any urban or highly rural areas; the entire service territory is rural.

4.2 Understanding major trends impacting ignition probability and wildfire consequence

Describe how the utility assesses wildfire risk in terms of ignition probability and estimated wildfire consequence, including use of Multi-Attribute Risk Score (MARS) and Multi-Attribute Value Function (MAVF) as in the Safety Model and Assessment Proceeding (S-MAP) and Risk Assessment Mitigation Phase (RAMP). Include description of how the utility distinguishes between these risks and the risks to safety and reliability. List and describe each "known local condition" that the utility monitors per GO 95, Rule 31.1, including how the condition is monitored and evaluated. In addition:

A. Describe how the utility monitors and accounts for the contribution of weather to ignition probability and estimated wildfire consequence in its decision-making, including describing any utility-generated Fire Potential Index or other measure (including input variables, equations, the scale or rating system, an explanation of how uncertainties are accounted for, an explanation of how this index is used to inform operational decisions, and an explanation of how trends in index ratings impact medium-term decisions such as maintenance and longer-term decisions such as capital investments, etc.).

B. Describe how the utility monitors and accounts for the contribution of fuel conditions to ignition probability and estimated wildfire consequence in its decision-making, including describing any proprietary fuel condition index (or other measures tracked), the outputs of said index or other measures, and the methodology used for projecting future fuel conditions. Include discussion of measurements and units for live fuel moisture content, dead fuel moisture content, density of each fuel type, and any other variables tracked. Describe the measures and thresholds the utility uses to determine extreme fuel conditions, including what fuel moisture measurements and threshold values the utility considers "extreme" and its strategy for how fuel conditions inform operational decision-making.

See BVES 2020 WMP, Sections 3.1, 3.2, 3.3, and 5.3

Table 19: Macro trends impacting ignition probability and/or wildfire consequence

Rank	Macro trends impacting utility ignited ignition probability and estimated wildfire consequence by year 10	Comments
1	Change in ignition probability and estimated wildfire consequence due to climate change	The utility expects climate change to produce significant increase in ignition probability over the 10-year period. Based on 2017 Climate Change and Health Profile Report San Bernardino County (UC Davis), California Fourth Climate Assessment.
3	Change in ignition probability and estimated wildfire consequence due to relevant invasive species, such as bark beetles	The Big Bear Lake region has previously been affected by bark beetles, notably in the Summer of 2018 as a result of the then-ongoing drought in California. While the utility has not experienced any ignition events, increased dead tree density is likely as climate change creates more favorable Summer conditions for bark beetle populations.
2	Change in ignition probability and estimated wildfire consequence due to other drivers of change in fuel density and moisture	The utility's service territory is in a heavily forested alpine environment. Any increase in fuel density and dryness creates a disproportionate increase in ignition probability and/or estimated wildfire consequences.
5	Population changes (including Access and Functional Needs population) that could be impacted by utility ignition	The utility's service territory is entirely in a mountain resort region. BVES does not expect significant population changes within its service territory and does not foresee measurable changes impacting ignition probability and/or wildfire consequence as a result thereof.
6	Population changes in HFTD that could be impacted by utility ignition	The utility's service territory is entirely in a mountain resort region. BVES does not expect significant population changes within its service territory and does not foresee measurable changes impacting ignition probability and/or wildfire consequence as a result thereof.
4	Population changes in WUI that could be impacted by utility ignition	The utility's service territory is entirely in a mountain resort region. BVES does not expect significant population changes within its service territory and does not foresee measurable changes impacting ignition probability and/or wildfire consequence as a result thereof.
7	Utility infrastructure location in HFTD vs non-HFTD	The utility's service territory is entirely in HFTD 2 or HFTD3. As a result, BVES does not foresee any differentiated impacts in ignition probability and/or wildfire consequence due to the location of utility infrastructure in HFTD vs non-HFTD
8	Utility infrastructure location in urban vs rural vs highly rural areas	The utility's service territory is entirely rural. As a result, BVES does not foresee any differentiated impacts in ignition probability and/or wildfire consequence due to the location of utility infrastructure in urban vs rural vs highly rural areas

List and describe any additional macro trends impacting ignition probability and estimated wildfire consequence within utility service territory, including trends within the control of the utility, trends within the utility's ability to influence, and externalities (i.e., trends beyond the utility's control, such as population changes within the utility's territory).

In addition to the comments laid out in Table 19, see BVES 2020 WMP Section 3.2 through subsection 3.2.1.

List and describe all relevant drivers of ignition probability and estimated wildfire consequences and the mitigations that are identified in the Risk Assessment Mitigation Phase (RAMP) and not included in the above, including how these are expected to evolve. Rank these drivers from highest to lowest risk and describe how they are expected to evolve.

The CPUC has not required BVES to conduct a Risk Assessment and Mitigation Phase (RAMP) in prior GRC filings, however through its risk-based decision-making framework, BVES has created a list of risks and a prioritized list of mitigation measures.
BVES 2020 WMP Section 3.2

4.3 Change in Ignition Probability Drivers

Based on the implementation of the above wildfire mitigation initiatives, explain how the utility sees its ignition probability drivers evolving over the 3 year term of the WMP. Focus on ignition probability and estimated wildfire consequence reduction by ignition probability driver, detailed risk driver, and include a description of how the utility expects to see incidents evolve over the same period, both in total number (of occurrence of a given incident type, whether resulting in a near miss or in an ignition) and in likelihood of causing an ignition by type. Outline methodology for determining ignition probability from events, including data used to determine likelihood of ignition probability, such as past ignition events, number of near misses, and description of events (including vegetation and equipment condition).

~~See BVES 2020 WMP, Sections 3.1, 3.2, & 3.3~~

4.4 Directional Vision for Necessity of PSPS

Describe any lessons learned from PSPS since the utility's last WMP submission and expectations for how the utility's PSPS program will evolve over the coming 1, 3, and 10 years. Be specific by including a description of the utility's protocols and thresholds for PSPS implementation. Include a quantitative description of how the circuits and numbers of customers that the utility expects will be impacted by any necessary PSPS events is expected to evolve over time. The description of protocols must be sufficiently detailed and clear to enable a skilled operator to follow the same protocols. When calculating anticipated PSPS, consider recent weather extremes, including peak weather conditions over the past 10 years as well as recent weather years and how the utility's current PSPS protocols would be applied to those years.

BVES did not initiate a PSPS event in 2019, therefore has no direct lessons learned to apply to 2020.

~~In addition to Table 20 comments, see the following in the BVES 2020 WMP: Subsection 3.2.1.1, Table 3-5, subsection 5.5.1 and Table 5-7~~

Table 20: Anticipated characteristics of PSPS use over next 10 years

Rank order 1-9	PSPS characteristic	Significantly increase; increase; no change; decrease; significantly decrease	Comments
N/A - BVES does not anticipate and has not had any PSPS events	Number of customers affected by PSPS events (total)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Number of customers affected by PSPS events (normalized by fire weather, e.g., Red Flag Warning line mile days)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Frequency of PSPS events in number of instances where utility operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability (total)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Frequency of PSPS events in number of instances where utility operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability (normalized by fire weather, e.g., Red Flag Warning line mile days)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Scope of PSPS events in circuit-events, measured in number of events multiplied by number of circuits targeted for de-energization (total)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Scope of PSPS events in circuit-events, measured in number of events multiplied by number of circuits targeted for de-energization (normalized by fire weather, e.g., Red Flag Warning line mile days)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Duration of PSPS events in customer hours (total)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Duration of PSPS events in customer hours (normalized by fire weather, e.g., Red Flag Warning line mile days)	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years
N/A - BVES does not anticipate and has not had any PSPS events	Other	No change	BVES has not implemented any PSPS does not anticipate the need for PSPS over the next 10 years

5.1 Wildfire mitigation strategy

Describe organization-wide wildfire mitigation strategy and goals for each of the following time periods:

1. Before the upcoming wildfire season, as defined by the California Department of Forestry and Fire Protection (CAL FIRE),
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

The description of utility wildfire mitigation strategy shall:

- A. Discuss the utility's approach to determining how to manage wildfire risk (in terms of ignition probability and estimated wildfire consequence) as distinct from managing risks to safety and/or reliability. Describe how this determination is made both for (1) the types of activities needed and (2) the extent of those activities needed to mitigate these two different groups of risks. Describe to what degree the activities needed to manage wildfire risk may be incremental to those needed to address safety and/or reliability risks.
- B. Include a summary of what major investments and implementation of wildfire mitigation initiatives achieved over the past year, any lessons learned, any changed circumstances for the 2020 WMP term (i.e., 2020-2022), and any corresponding adjustment in priorities for the upcoming plan term. Organize summaries of initiatives by the wildfire mitigation categories listed in Section 5.3.
- C. List and describe all challenges associated with limited resources and how these challenges are expected to evolve over the next 3 years.
- D. Outline how the utility expects new technologies and innovations to impact the utility's strategy and implementation approach over the next 3 years, including the utility's program for integrating new technologies into the utility's grid.

See BVES 2020-WMP:
~~A. Section 3.2, and 3.3.~~
~~B. Table 2-2, Section 4.3, and Chapter 5 for corresponding initiatives.~~
~~C. Section 2.1~~
~~D. Subsection 5.1.6~~

5.2 Wildfire Mitigation Plan Implementation

Describe the processes and procedures the electrical corporation will use to do all the following:

- A. Monitor and audit the implementation of the plan. Include what is being audited, who conducts the audits, what type of data is being collected, and how the data undergoes quality assurance and quality control.
- B. Identify any deficiencies in the plan or the plan's implementation and correct those deficiencies.
- C. Monitor and audit the effectiveness of inspections, including inspections performed by contractors, carried out under the plan and other applicable statutes and commission rules.
- D. For all data that is used to drive wildfire-related decisions, including grid operations, capital allocation, community engagement, and other areas, provide a thorough description of the utility's data architecture and flows. List and describe 1) all dashboards and reports directly or indirectly related to ignition probability and estimated wildfire consequences and reduction, and 2) all available GIS data and products. For each, include metadata and a data dictionary that defines all information about the data. For each, also describe how the utility collects data, including a list of all wildfire-related data elements, where it is stored, how it is accessed, and by whom. Explain processes for QA/QC, cleaning and analyzing, normalizing, and utilizing data to drive internal decisions. Include list of internal data standards and cross-reference for they datasets or map products to which the standards apply.

~~See BVES 2020 WMP Section 1.2, Chapter 2, and Sections 2.1, 2.2, & 2.4~~

5.3.1 Risk assessment and mapping

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description for the utility's programs, the utility's rationale behind each of the elements of this program, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each program, how the utility plans to demonstrate over time whether each component is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. A summarized risk map showing the overall ignition probability and estimated wildfire consequence along electric lines and equipment
2. Climate-driven risk map and modelling based on various relevant weather scenarios
3. Ignition probability mapping showing the probability of ignition along the electric lines and equipment
4. Initiative mapping and estimation of wildfire and PSPS risk-reduction impact
5. Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment
6. Weather-driven risk map and modelling based on various relevant weather scenarios
7. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3 and Sections 4.1, 4.2, 4.3

5.3.2 Situational awareness and forecasting

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Advanced weather monitoring and weather stations
2. Continuous monitoring sensors
3. Fault indicators for detecting faults on electric lines and equipment
4. Forecast of a fire risk index, fire potential index, or similar
5. Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions
6. Weather forecasting and estimating impacts on electric lines and equipment
7. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3, Sections 4.1, 4.2, 4.3, and Section 5.4

5.3.3 Grid design and system hardening

Describe utility approach to the following categories of maintenance of transmission lines, distribution lines, and equipment, respectively:

1. Routine maintenance programs and protocols (i.e., covering general maintenance approach and programmatic structure),
2. Non-routine maintenance, further delineated into:
 - a. Emergency response maintenance/repair, and
 - b. Inspection response maintenance/repair.

Discuss proactive replacement programs versus run-to-failure models for each group, including:

1. Whether there are specific line elements or equipment that are prioritized for preventive maintenance or replacement,
2. How those programs are established
3. What data or information is utilized to make those determinations, and
4. What level of subjectivity is implemented in making those determinations

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Capacitor maintenance and replacement program
2. Circuit breaker maintenance and installation to de-energize lines upon detecting a fault
3. Covered conductor installation
4. Covered conductor maintenance
5. Crossarm maintenance, repair, and replacement
6. Distribution pole replacement and reinforcement, including with composite poles
7. Expulsion fuse replacement
8. Grid topology improvements to mitigate or reduce PSPS events
9. Installation of system automation equipment
10. Maintenance, repair, and replacement of connectors, including hotline clamps
11. Mitigation of impact on customers and other residents affected during PSPS event
12. Other corrective action
13. Pole loading infrastructure hardening and replacement program based on pole loading assessment program
14. Transformers maintenance and replacement
15. Transmission tower maintenance and replacement
16. Undergrounding of electric lines and/or equipment
17. Updates to grid topology to minimize risk of ignition in HFTDs
18. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES-2020-WMP Chapter 3, Sections 4.1, 4.2, 4.3, and 5.1

22. Other / not listed	2020 plan				N/A	N/A	Wildfire-Public Safety	1,022,629.33	0.6	Wildfire-Significant Loss of Property	New	N/A - this is a new initiative	WMP Memorandum Account	N/A - this initiative is not associated with a specific regulation	N/A - this initiative is not associated with a specific rule	Hardening of overhead facilities along evacuation routes to prevent facilities from falling into evacuation routes during a wildfire. Estimated \$1,750,000 CAPEX in each year 2021-2025. Pilot program cost \$200,000.	
	2020 actual																
	2020	\$	1,022,629.33	\$													1,022,629.33
	2021	\$	1,022,629.33	\$													1,022,629.33
	2020-2022 plan total	\$	3,420,000.00	\$													3,420,000.00
23. Other / not listed	2020 plan				N/A	N/A	Loss of Energy Supplies	2,602,297.79	2.81	N/A - this initiative does not address any other risk drivers	New	D-19-08-027	ENR	N/A - this initiative is not associated with a specific regulation	N/A - this initiative is not associated with a specific rule	BVPF Reliability Upgrades. Upgrades power plant electronic controls, emissions monitoring systems, generator reliability, and engine performance.	
	2020 actual																
	2020	\$	925,484.50	\$													925,484.50
	2021	\$	925,484.50	\$													925,484.50
	2020-2022 plan total	\$	1,850,969.00	\$													1,850,969.00
24. Other / not listed	2020 plan				N/A	N/A	Contact from object. All types of equipment/facility failure. Wire-to-wire contact/contamination.	1,143,068.47	0.48	Wildfire-Significant Loss of Property	New	N/A - this is a new initiative	Cost Recovery TBD	N/A - this initiative is not associated with a specific regulation	N/A - this initiative is not associated with a specific rule	Alternative Technologies Down Wire Detection Relay Installation Program, Spark-Event Fault Current Limiter, Install On-line Diagnostic Technology Insertion, etc.). Estimated \$7,113,000 CAPEX over 3 year execution period 2023-2025.	
	2020 actual																
	2020	\$	1,143,068.47	\$													1,143,068.47
	2021	\$	1,143,068.47	\$													1,143,068.47
	2020-2022 plan total	\$	3,420,000.00	\$													3,420,000.00

5.3.4 Asset management and inspections

Explain the rationale for any utility ignition probability-specific inspections (e.g., "enhanced inspections") within the HFTD as deemed necessary over and above the standard inspections. This shall include information about how (i.e., criteria, protocols, etc.) the electrical corporation determines additional inspections are necessary.

Describe the utility's maintenance protocols relating to maintenance of any electric lines or equipment that could, directly or indirectly, relate to wildfire ignition. Include in the description the threshold by which the utility makes decisions of whether to (1) repair, or (2) replace electric lines and equipment. Describe all electric lines and equipment that the utility "runs-to-failure", those that the utility maintains on a risk-based maintenance plan, and those that are managed by other approaches; describe each approach. Explain the maintenance program that the utility follows and rationale for all lines and equipment.

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description for the utility's programs, the utility's rationale behind each of the elements of this program, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each program, how the utility plans to demonstrate over time whether each component is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Detailed inspections of distribution electric lines and equipment
2. Detailed inspections of transmission electric lines and equipment
3. Improvement of inspections
4. Infrared inspections of distribution electric lines and equipment
5. Infrared inspections of transmission electric lines and equipment
6. Intrusive pole inspections
7. LIDAR inspections of distribution electric lines and equipment
8. LIDAR inspections of transmission electric lines and equipment
9. Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
10. Other discretionary inspection of transmission electric lines and equipment, beyond inspections mandated by rules and regulations
11. Patrol inspections of distribution electric lines and equipment
12. Patrol inspections of transmission electric lines and equipment
13. Pole loading assessment program to determine safety factor
14. Quality assurance / quality control of inspections
15. Substation inspections
16. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3, Sections 4.1, 4.2, 4.3, and Subsection 5.2.1

5.3.5 Vegetation management and inspections

Explain the rationale for any utility ignition probability-specific inspections (e.g., "enhanced inspections") within the HFTD as deemed necessary over and above the standard inspections. This shall include information about how (i.e., criteria, protocols, etc.) the electrical corporation determines additional inspections are necessary.

Describe the utility's vegetation treatment protocols relating to treatment of any vegetation that could pose a grow-in or fall-in risk to utility equipment. Include in the description the threshold by which the utility makes decisions of whether to (1) treat, or (2) remove vegetation.

Discuss the overall objectives, strategies, and tactics of the electrical corporation for vegetation management. In the discussion,

1. Address how the electrical corporation has collaborated with local land managers to leverage opportunities for fuel treatment activities and fire break creation, and compliance with other local, state, and federal forestry and timber regulations.
2. Discuss how the electrical corporation identifies and determines which vegetation is at risk of ignition from utility electric lines and equipment.
3. Describe how (i.e., criteria, data, protocols, studies, etc.) the utility made the determination to trim any vegetation beyond required clearances in GO 95.
4. Describe utility plan to mitigate identified trees with strike potential, including information about how (i.e., criteria, protocols, data, statutes, etc.) the electrical corporation identifies and defines "hazard trees" and "trees with strike potential" based on height and feasible path to strike powerlines or equipment. Describe utility plan to identify reliability/at-risk tree species to trim or remove, where feasible, per location-specific criteria.
5. Include a discussion of how the utility's overall vegetation management initiatives address risks that may arise from trimming or removing trees, including but not limited to erosion, wind, flooding, etc.

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Additional efforts to manage community and environmental impacts
2. Detailed inspections of vegetation around distribution electric lines and equipment
3. Detailed inspections of vegetation around transmission electric lines and equipment
4. Emergency response vegetation management due to red flag warning or other urgent conditions
5. Fuel management and reduction of "slash" from vegetation management activities
6. Improvement of inspections
7. LIDAR inspections of vegetation around distribution electric lines and equipment
8. LIDAR inspections of vegetation around transmission electric lines and equipment
9. Other discretionary inspection of vegetation around distribution electric lines and equipment, beyond inspections mandated by rules and regulations
10. Other discretionary inspection of vegetation around transmission electric lines and equipment, beyond inspections mandated by rules and regulations
11. Patrol inspections of vegetation around distribution electric lines and equipment
12. Patrol inspections of vegetation around transmission electric lines and equipment
13. Quality assurance / quality control of inspections
14. Recruiting and training of vegetation management personnel
15. Remediation of at-risk species
16. Removal and remediation of trees with strike potential to electric lines and equipment
17. Substation inspections
18. Substation vegetation management
19. Vegetation inventory system
20. Vegetation management to achieve clearances around electric lines and equipment
21. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3, Section 4.1, 4.2, 4.3, and Subsection 5.2.2

Table 25: Vegetation management and inspections
 Reference: 3.0000-Data returned from: 0025-43763-1-64

Initiative activity	Year	Total per Initiative spend	Subtotal A: Capital expenditure	Subtotal B: Operating expense	Line refers to be treated	Spent/treated line rate	Ignition probability drivers targeted	Risk reduction	Risk spend efficiency	Other risk drivers addressed	Existing/new	Existing - what preceding has replaced/program	if new: Monoculture account	if compliance: compliance with regulations	One associated rule	Comments
1. Additional efforts to manage community and environmental impacts	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ 3,265,112.02	\$ 3,265,112.02	\$ -												See Valley Electric Service does not have a specific wildfire mitigation vegetation management and inspection initiative dedicated to this effort at this time. The utility recognizes that additional efforts to manage community and environmental impacts are critical to reducing wildfire risk and conducts such efforts on an as-needed basis, as well as incorporating additional efforts within other programs such as those in Table 23 and Table 30.
2. Detailed inspections of vegetation around distribution electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ 2,265,112.02	\$ 2,265,112.02	\$ -				873,293.38	0.27	Wildfire Significant Loss of Property	Existing	0.19-08-027	NRMA (not new)	Exceeding	GD-95	Increase vegetation clearance, critical for tree removal, and eliminate overhanging on sub-transmission. These are above the 2017 baseline vegetation clearances, critical for tree removal, and eliminate overhanging on sub-transmission. These are above the 2017 baseline vegetation clearances that were in effect before CPUC Decision 17-02-024 December 14, 2017 was adopted.
3. Detailed inspections of vegetation around transmission electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ 6,795,138.01	\$ 6,795,138.01	\$ -												See Valley Electric Service does not have any transmission lines or equipment as all the utility's lines are below 69KV.
4. Emergency response vegetation management due to red flag warnings or other urgent conditions	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have a specific wildfire mitigation vegetation management and inspection initiative dedicated to this effort at this time. The utility recognizes that emergency response vegetation management due to red flag warnings or other urgent conditions are critical to reducing wildfire risk and has already incorporated these efforts into the utility's existing Emergency Response and Preparedness Plan as well as the initiatives described in Table 26.
5. Fuel management and reduction of "loads" from vegetation management activities	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have a specific wildfire mitigation vegetation management and inspection initiative dedicated to this effort at this time. Fuel management and reduction of "loads" from vegetation management activities have been incorporated into the utility's ongoing and newly proposed vegetation management initiatives as described in Table 25.
6. Improvement of inspections	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Program incorporated new requirements in 2019
7. LDM inspections of vegetation around distribution electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service LDM inspections of vegetation around distribution electric lines and equipment are captured in Table 24 Initiative 7. LDM inspections of distribution electric lines and equipment.
8. LDM inspections of vegetation around transmission electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have any transmission lines or equipment as all the utility's lines are below 69KV.
9. Other discretionary inspections of vegetation around distribution electric lines and equipment, beyond inspections	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have any other discretionary inspections of vegetation around distribution electric lines and equipment beyond inspections, mandated by rule, and regulations and other described initiatives at this time.
10. Other discretionary inspections of vegetation around transmission electric lines and equipment, beyond inspections	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have any transmission lines or equipment as all the utility's lines are below 69KV.
11. Patrol inspections of vegetation around distribution electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service patrol inspections of vegetation around distribution electric lines and equipment are fully captured in Table 25 Initiative 2. Detailed inspection of vegetation around distribution electric lines and equipment and Table 24 Initiative 11. Patrol inspections of distribution electric lines and equipment.
12. Patrol inspections of vegetation around transmission electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have any transmission lines or equipment as all the utility's lines are below 69KV.
13. Quality assurance / quality control of inspections	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												General initiative and best practices applied to and accounted for in other relevant initiatives
14. Recycling and training of vegetation management personnel	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ 236,961.31	\$ 236,961.31	\$ -				131,260.94	0.67	Wildfire Significant Loss of Property	New	NRMA - this is a new initiative	NRMA Monoculture Account	Exceeding	GD05	Plan a full-time contract safety foreman at part of the BVE3 team. The job duties of the contract foreman would include: Inspections, report and maintain records for hot spot locations, hazard tree identification and safety management. Auditing the form site specific work to ensure contractors are performing within the specifications set forth by BVE3. Customer Communication/Resolution: Initiate or follow up on a timely and professional manner on all customer issues that may arise in a manner that will support the policies and procedures of BVE3. This includes: customer notification, permit negotiations, conflict resolution, outage support/investigations and providing shared resources to contractors, submitters, line and/or service work groups related to BVE3's Vegetation Management group. Administrative: Foreman also initiates, spreadsheet work, monitor crew activity sheets, track completed work, capture photo documentation of work conditions and other administrative tasks as needed. Developing Work Plans: Develop work plans that specify the pricing and removal requirements to maintain the utility ROW. These plans will be developed in an efficient and straightforward manner for a seamless transition to the tree contractor. Specialized Projects: Develop and manage specialized projects with an emphasis on reliability and risk management. Perform enhanced outage investigation, integrated storm hardening projects, performed risk assessment and prioritization studies, developed storm response protocols and regionalized based fire programs that are focused on improving system safety. Contractor Safety Observations: Observe contractors as they work and provide safety behavior modification to help ensure a program that is best in class not only in vegetation management, but safety as well.
15. Remediation of at-risk species	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Remediation of at-risk species is a subset to the company's vegetation management practices to achieve clearances around electric lines and equipment as described in Table 25, particularly Table 24 Item 14. As such, See Valley Electric Service does not have a specific wildfire mitigation initiative for remediation of at-risk species at this time.
16. Removal and remediation of trees with stroke potential at electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Removal and remediation of trees with stroke potential at electric lines and equipment is a subset to the company's vegetation management practices to achieve clearances around electric lines and equipment as described in Table 25, particularly Table 24 Item 14. As such, See Valley Electric Service does not have a specific wildfire mitigation initiative for removal and remediation of trees with stroke potential at this time.
17. Substation inspections	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Substation vegetation management is a subset to the company's overall vegetation management initiatives as described in Table 25.
18. Substation vegetation management	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Substation inspections are a subset to the company's overall vegetation management inspections as described in Table 25 Initiatives 2, and 14.
19. Vegetation inventory system	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												See Valley Electric Service does not have a specific wildfire mitigation initiative dedicated to the creation and management of a vegetation inventory system at this time. The company's utility foreman, as described in Table 25 Item 14, maintains such a system.
20. Vegetation management to achieve clearances around electric lines and equipment	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												Vegetation management to achieve clearances around electric lines and equipment is captured in Table 25 Items 2, and 14.
21. Other / not listed	2019 plan 2020 actual 2021 actual 2022 actual 2030-2032 plan total	\$ -	\$ -	\$ -												N/A - the utility does not have any other or unlisted vegetation management initiatives

5.3.6 Grid operations and protocols

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Automatic recloser operations
2. Crew-accompanying ignition prevention and suppression resources and services
3. Personnel work procedures and training in conditions of elevated fire risk
4. Protocols for PSPS re-energization
5. PSPS events and mitigation of PSPS impacts
6. Stationed and on-call ignition prevention and suppression resources and services
7. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3, Sections 4.1, 4.2, 4.3, Section 5.3, and Subsection 5.5.1

5.3.7 Data Governance

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Centralized repository for data
2. Collaborative research on utility ignition and/or wildfire
3. Documentation and disclosure of wildfire-related data and algorithms
4. Tracking and analysis of near miss data
5. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

The list provided is non-exhaustive and utilities shall add additional initiatives to this table as their individual programs are designed and structured. Do not create a new initiative if the utility's initiatives can be classified under a provided initiative. For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Chapter 3, Sections 4.1, 4.2, 4.3, and Subsection 5.2.1

Table 27: Data governance
 Response to WSD data request item BVES-43879-K-141 33 \$ 420.00

Initiative activity	Year	Total per-initiative spend	Subtotal A: Capital expenditure	Subtotal B: Operating expenses	Line miles to be treated	Spend/ treated line mile	Ignition probability drivers targeted	Risk reduction	Risk-spend efficiency	Other risk drivers addressed	Existing/new	Existing: What proceeding has reviewed program	If new: Memorandum account	In / exceeding compliance with regulations	Cite associated rule	Comments
1. Centralized repository for data	2019 plan	\$ 46,182.79	\$ -	\$ 46,182.79	N/A - this is a System Wide Initiative	N/A - this is a System Wide Initiative	All	148,458.96	3.20	Wildfire-Significant Loss of Property.	Existing	D.19-08-027	GRC	N/A - this initiative is unassociated with any specific regulation	N/A - this initiative is unassociated with any specific regulation	GIS Data Collection & Sharing. Maintain and share Geographic Information System (GIS) database on system infrastructure for asset management and planning with key stakeholders.
	2020 actual	\$ 46,182.79	\$ -	\$ 46,182.79												
	2021	\$ 46,182.79	\$ -	\$ 46,182.79												
	2022	\$ 46,182.79	\$ -	\$ 46,182.79												
	2020-2022 plan total	\$ 139,146.87	\$ -	\$ 139,146.87												
2. Collaborative research on utility ignition and/or wildfire	2019 plan				Bear Valley Electric Service does not have a specific wildfire mitigation data governance plan focused on collaborative research on utility ignition and/or wildfire. The company generally collaborates with Mutual Aid Partners and first responders to develop protocols, procedures, and communication plans to prevent, manage, and respond to utility ignition and/or wildfire.											
	2020 actual															
	2021															
	2022															
	2020-2022 plan total															
3. Documentation and disclosure of wildfire-related data and algorithms	2019 plan				Bear Valley Electric Service does not have a specific data governance wildfire mitigation program focused on documentation and disclosure of wildfire-related data and algorithms that maps to the tracking and level of detail requested in this table at this time.											
	2020 actual															
	2021															
	2022															
	2020-2022 plan total															
4. Tracking and analysis of near miss data	2019 plan				Bear Valley Electric Service does not have a specific wildfire mitigation data governance initiative focused on tracking and analysis of near-miss data that maps to the tracking and level of detail requested in this table at this time.											
	2020 actual															
	2021															
	2022															
	2020-2022 plan total															
5. Other / not listed	2019 plan				Bear Valley Electric Service does not have any other wildfire mitigation data governance initiatives at this time.											
	2020 actual															
	2021															
	2022															
	2020-2022 plan total															

5.3.8 Resource allocation methodology

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following resource allocation methodology and sensitivities initiatives, including a description of the data flow into the calculations involved in each. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Allocation methodology development and application
2. Risk reduction scenario development and analysis
3. Risk spend efficiency analysis
4. Other / not listed (only if an initiative cannot feasibly be classified within those listed above)

For each of the below initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season
2. Before the next annual update
3. Within the next 3 years
4. Within the next 10 years

The list provided is non-exhaustive and utilities shall add additional initiatives to this table as their individual programs are designed and structured. Do not create a new initiative if the utility's initiatives can be classified under a provided initiative. Where the columns listed do not apply or cannot be meaningfully calculated for a given resource allocation methodology and sensitivities initiative, "N/A" may be logged in the corresponding cell.

See BVES 2020 WMP Chapter 3, Sections 4.1, 4.2, and 4.3

5.3.9 Emergency planning and preparedness

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other (include a general description of the overall emergency preparedness and response plan, and detail:

1. A description of how plan is consistent with disaster and emergency preparedness plan prepared pursuant to Public Utilities Code Section 768.6, including:
 - a. Plans to prepare for and restore service, including workforce mobilization (including mutual aid and contractors) and prepositioning equipment and employees
 - b. Emergency communications, including community outreach, public awareness, and communications efforts before, during, and after a wildfire in English, Spanish, and the top three primary languages used in California other than English or Spanish, as determined by United States Census data
 - c. Showing that the utility has an adequate and trained workforce to promptly restore service after a major event, taking into account mutual aid and contractors
2. Customer support in emergencies, including protocols for compliance with requirements adopted by the CPUC regarding activities to support customers during and after a wildfire, including:
 - a. Outage reporting
 - b. Support for low income customers
 - c. Billing adjustments
 - d. Deposit waivers
 - e. Extended payment plans
 - f. Suspension of disconnection and nonpayment fees
 - g. Repair processing and timing
 - h. Access to utility representatives
1. Coordination with Public Safety Partners, such as stationing utility personnel in county Emergency Operations Centers

Describe utility efforts to identify which additional languages are in use within the utility's service territory, including plan to identify and mitigate language access challenges.

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Adequate and trained workforce for service restoration
2. Community outreach, public awareness, and communications efforts
3. Customer support in emergencies
4. Disaster and emergency preparedness plan
5. Preparedness and planning for service restoration
6. Protocols in place to learn from wildfire events
7. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

The list provided is non-exhaustive and utilities shall add additional initiatives to this table as their individual programs are designed and structured. Do not create a new initiative if the utility's initiatives can be classified under a provided initiative.

Utility checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following resource allocation methodology and sensitivities initiatives, including a description of the data flow into the calculations involved in each. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Allocation methodology development and application
2. Risk reduction scenario development and analysis
3. Risk spend efficiency analysis
4. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

For each of the below initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season
2. Before the next annual update
3. Within the next 3 years
4. Within the next 10 years

The list provided is non-exhaustive and utilities shall add additional initiatives to this table as their individual programs are designed and structured. Do not create a new initiative if the utility's initiatives can be classified under a provided initiative. Where the columns listed do not apply or cannot be meaningfully calculated for a given resource allocation methodology and sensitivities initiative, "N/A" may be logged in the corresponding cell.

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Table 3-6, Sections 5.5, 5.7, 5.8, & 5.9

5.3.10 Stakeholder cooperation and community engagement

Description of programs to reduce ignition probability and wildfire consequence

For each of the below initiatives, provide a detailed description and approximate timeline of each, whether already implemented or planned, to minimize the risk of its equipment or facilities causing wildfires. Include a description of the utility's initiatives, the utility's rationale behind each of the elements of the initiatives, the utility's prioritization approach/methodology to determine spending and deployment of human and other resources, how the utility will conduct audits or other quality checks on each initiative, how the utility plans to demonstrate over time whether each component of the initiatives is effective and, if not, how the utility plans to evolve each component to ensure effective spend of ratepayer funds.

Include descriptions across each of the following initiatives. Input the following initiative names into a spreadsheet formatted according to the template below and input information for each cell in the row.

1. Community engagement
2. Cooperation and best practice sharing with agencies outside CA
3. Cooperation with suppression agencies
4. Forest service and fuel reduction cooperation and joint roadmap
5. Other / not listed [only if an initiative cannot feasibly be classified within those listed above]

The list provided is non-exhaustive and utilities shall add additional initiatives to this table as their individual programs are designed and structured. Do not create a new initiative if the utility's initiatives can be classified under a provided initiative.

For each of the above initiatives, describe the utility's current program and provide an explanation of how the utility expects to evolve the utility's program over each of the following time periods:

1. Before the upcoming wildfire season,
2. Before the next annual update,
3. Within the next 3 years, and
4. Within the next 10 years.

See BVES 2020 WMP Subsection 5.2.2 and Sections 5.7, 5.8, & 5.9

Table 30: Stakeholder cooperation and community engagement
 Response to WSD data request item BVES-43879-E-140

Initiative activity	Year	Total per-initiative spend	Subtotal A: Capital expenditure	Subtotal B: Operating expenses	Line miles to be treated	Spend/ treated line mile	Ignition probability drivers targeted	Risk reduction	Risk-spend efficiency	Other risk drivers addressed	Existing/ new	Existing: What proceeding has reviewed program	If new: Memorandum account	In / exceeding compliance with regulations	Cite associated rule	Comments
1. Community engagement	2019 plan	Bear Valley Electric Service does not have a community engagement program specific to wildfire mitigation at this time. The utility values community engagement as a wildfire risk mitigation strategy and has incorporated community engagement as a component of its overall Emergency Preparedness and Response Programs as included in Section X.														
	2019 actual															
	2020															
	2021															
	2022															
2. Cooperation and best practice sharing with agencies outside CA	2020-2022 plan total	N/A - this is not a specifically budgeted program	N/A - this is not a specifically budgeted program	N/A - this is not a specifically budgeted program	N/A - this is a System Wide Initiative	N/A - this is a System Wide Initiative	This initiative targets all ignition probability drivers	N/A - as a System Wide Initiative, this initiative does not have a specified risk reduction	N/A - as a System Wide Initiative, this initiative does not have a specific risk-spend efficiency	Reduces risk of escalation through support of accelerated restoration	Existing	N/A - none	N/A - this is an Existing initiative	N/A - there is not a clear threshold for compliance for this initiative	N/A - none	N/A - none
	2019 plan	During emergency situations, Bear Valley Electric Service's [emergency management group] communicates and collaborates with federal and state emergency responders and mutual assistance groups, including fire suppression agencies. The emergency manager has contact information for [state, county and tribal emergency managers, the state's Emergency Operations Center Emergency Support Functions (ESF) personnel, and the Geographic Area Coordination Centers dispatch centers for fire-related emergency response.]														
	2019 actual															
	2020															
	2021															
2022																
3. Cooperation with suppression agencies	2020-2022 plan total	Bear Valley Electric Service views cooperation with suppression agencies as a component of the company's Emergency Planning and Preparedness Programs outlined in Section X and does not have a separate program for cooperation with suppression agencies specific to this Wildfire Mitigation Plan at this time as such.														
	2019 plan															
	2019 actual															
	2020															
	2021															
4. Forest service and fuel reduction cooperation and joint roadmap	2020-2022 plan total	While collaboration such as this is critical to the overall reduction of wildfire risk in the state of CA, Bear Valley Electric Service does not have program dedicated to cooperation with the forest service and fuel reduction and the development of a joint roadmap specific to this Wildfire Mitigation Plan . The utility views these efforts on an as-needed basis and incorporates additional efforts to manage community environments within other programs, such as those included in Section X and Section XX and the company's overall vegetation management and inspections programs described in Section XXX.														
	2019 plan															
	2019 actual															
	2020															
	2021															
5. Other / not listed	2020-2022 plan total	Bear Valley Electric Service does not have stakeholder cooperation and community engagement initiatives other than those listed above.														
	2019 plan															
	2019 actual															
	2020															
	2021															

5.4 Methodology for enterprise-wide safety risk and wildfire-related risk assessment

Describe methodology for identifying and evaluating enterprise wide safety risk and wildfire related risk, and how that methodology is consistent with the methodology used by other electric utilities or electrical corporations. If the risk identification and evaluation methodology is different, the utility shall explain why in this section.

See BVES 2020 WMP Sections 3.1 and 3.2

5.5 Planning for workforce and other limited resources

Include a showing that the utility has an adequately sized and trained workforce to promptly restore service after a major event, taking into account employees of other utilities pursuant to mutual aid agreements and employees of entities that have entered into contracts with the utility.

See BVES 2020 WMP Subsection 5.5.2 and section 5.9

5.6.1 Planned utility infrastructure construction and upgrades

Explain how the utility expects the geographic location of transmission and distribution lines to shift over the three-year plan period and discuss its impact on 1) the utility's risk exposure and 2) the utility's wildfire mitigation strategy. Outline portions of grid within HFTD that are highest cost to serve, by highlighting circuits or portions of circuits that exceed \$0.5M per customer in capital cost required to harden. Provide justification for the level of hardening required and why the lowest cost path to harden this equipment exceeds \$0.5M per customer, including by describing the various alternatives that were considered to reduce ignition probability and estimated wildfire consequence. For each of these sections of the grid, outline any analysis that was conducted around islanding, serving with microgrids, or providing backup generation, all to reduce the impact of PSPS events and reduce ignition probability and estimated wildfire consequence at the lowest possible cost.

Discuss how the utility wildfire mitigation strategy influenced its plan for infrastructure construction (in terms of additions or removal of overhead lines, including undergrounding of overhead lines) as detailed in Section 3.4.2. Discuss how the utility wildfire mitigation strategy influenced its plan for upgrades to overhead lines and substations as detailed in the Section 3.4.2.

BVES does not have plans in the foreseeable future for new circuit construction for either transmission or distribution. The Ute Undergrounding initiative is still under the preliminary planning and discussion phase.

~~See BVES 2020 WMP Sections 2.1, 2.2, 3.2, 3.3.~~

Table 31: Change in drivers of ignition probability taking into account planned initiatives, for each year of plan

Incident type by ignition probability driver	Detailed risk driver	Are near misses tracked?	Number of incidents per year			Average percentage likelihood of ignition per incident			Number of ignitions per year		
			2020	2021	2022	2020	2021	2022	2020	2021	2022
Contact from object	All types of object contact	Y	4	4	2	0.00%	0.00%	0.00%	0	0	0
	Animal contact	Y	1	1	0	0.00%	0.00%	0.00%	0	0	0
	Balloon contact	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0
	Vegetation contact	Y	3	3	2	0.00%	0.00%	0.00%	0	0	0
	Vehicle contact	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0
All types of equipment / facility failure	All types	Y	16	14	11	0.00%	0.00%	0.00%	0	0	0
	Capacitor bank failure	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0
	Conductor failure—all	Y	3	3	2	0.00%	0.00%	0.00%	0	0	0
	Conductor failure—wires down	Y	3	3	2	0.00%	0.00%	0.00%	0	0	0
	Fuse failure—all	Y	4	3	3	0.00%	0.00%	0.00%	0	0	0
	Fuse failure—conventional blown fuse	Y	4	3	3	0.00%	0.00%	0.00%	0	0	0
	Lightning arrestor failure	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0
	Switch failure	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0
	Transformer failure	Y	2	2	1	0.00%	0.00%	0.00%	0	0	0
	Wire-to-wire contact / contamination	Y	2	1	0	0.00%	0.00%	0.00%	0	0	0
	Other	Y	0	0	0	0.00%	0.00%	0.00%	0	0	0

5.6.2 Protocols on Public Safety Power Shut-Off

Describe protocols on Public Safety Power Shut-off (PSPS or de-energization), to include:

1. Strategy to minimize public safety risk during high wildfire risk conditions and details of the considerations, including but not limited to list and description of community assistance locations and services provided during a de-energization event.
2. Outline of tactical and strategic decision-making protocol for initiating a PSPS/de-energization (e.g., decision tree).
3. Strategy to provide for safe and effective re-energization of any area that was de-energized due to PSPS protocol.
4. Company standards relative to customer communications, including consideration for the need to notify priority essential services – critical first responders, public safety partners, critical facilities and infrastructure, operators of telecommunications infrastructure, and water utilities/agencies. This section, or an appendix to this section, shall include a complete listing of which entities the electrical corporation considers to be priority essential services. This section shall also include description of strategy and protocols to ensure timely notifications to customers, including access and functional needs populations, in the languages prevalent within the utility's service territory.
5. Protocols for mitigating the public safety impacts of these protocols, including impacts on first responders, health care facilities, operators of telecommunications infrastructure, and water utilities/agencies.

See BVES 2020 WMP Sections 5.5, 5.6, 5.7, 5.8, and 5.9

6 Utility GIS attachments

- 6.1 Recent weather patterns the utility is unable to provide this data in GIS format at this time
- 6.2 Recent drivers of ignition probability the utility is unable to provide this data in GIS format at this time
- 6.3 Recent use of PSPS the utility is unable to provide this data in GIS format at this time
- 6.4 Current baseline state of service territory and utility equipment
- 6.5 Location of planned utility equipment additions or removal the utility is unable to provide this data in GIS format at this time
- 6.6 Planned 2020 WMP initiative activity by end-2022 the utility is unable to provide this data in GIS format at this time

~~See Zipped "BVES Area Map Files.zip" folder, comprising all utility assets and available data for GIS mapping~~