State of California – A Natural Resources Agency
Gavin Newsom, Governor

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Caroline Thomas Jacobs, Director

March 15, 2024

To: Bear Valley Electric Service, Inc. (BVES)
Paul Marconi
President, Treasurer & Secretary
42020 Garstin Dr, PO BOX 1547
Big Bear Lake, CA 92315

SUBJECT: Office of Energy Infrastructure Safety's Report on BVES's 2021 Substantial Vegetation Management Audit

Pursuant to the requirements of California Public Utilities Code section 8386.3(c)(5)(C), the Office of Energy Infrastructure Safety (Energy Safety) completed its final audit and report on BVES's 2021 Substantial Vegetation Management work. Energy Safety finds that BVES substantially complied with the substantial portion of the vegetation management requirements in its 2021 Wildfire Mitigation Plan Update.

Pursuant to statutory requirements, a copy of this report is issued to BVES, published on Energy Safety's 2021 SVM Docket[1] and provided to the California Public Utilities Commission.

Sincerely,

Shannon O'Rourke
Deputy Director | Electrical Infrastructure Directorate
Office of Energy Infrastructure Safety
Cc:
Forest Kaser, CPUC
Leslie Palmer, CPUC
Jon Pechia, BVES
Tom Tzu-Tong Chou, BVES
Jarred Hennen, BVES
Compliance, Energy Safety

[1] All documents related to BVES's 2021 SVM audit are available on Energy Safety's e-filing under the "2021-SVM" docket and available here: (https://efiling.energysafety.ca.gov/Lists/DocketLog.aspx?docketnumber=2021-SVM [accessed March 11, 2024]).

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

2021 SUBSTANTIAL VEGETATION MANAGEMENT AUDIT AND REPORT

BEAR VALLEY ELECTRIC SERVICE, INC.

March 2024

TABLE OF CONTENTS

1. Introduction and Framework 1
2. Scope of the Substantial Vegetation Management Audit 3
3. Background 4
3.1 Vegetation Management Programs 4
3.2 2021 WMP Update Vegetation Management Initiatives 5
4. Analysis 6
4.1 Initiative 7.3.5.1: Additional Efforts to Manage Community and Environmental Impacts 6
4.1.1 2021 WMP Update Initiative Statements, Supporting Information, and Analysis. 6
4.1.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.1 8
4.2 Initiative 7.3.5.2: Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment 8
4.2.1 2021 WMP Update Statements, Supporting Information, and Analysis 8
4.2.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.2 9
4.3 Initiative 7.3.5.3: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment 10
4.3.1 2021 WMP Update Statements, Supporting Information and Analysis 10
4.3.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.3 10
4.4 Initiative 7.3.5.4: Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions 10
4.4.1 2021 WMP Update Statements, Supporting Information and Analysis 10
4.4.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.4 12
4.5 Initiative 7.3.5.5: Fuel Management and Reduction of "Slash" from VM Activities 12
4.5.1 2021 WMP Update Statements, Supporting Information and Analysis 12
4.5.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.5 13
4.6 Initiative 7.3.5.6: Improvement of Inspections 13
4.6.1 2021 WMP Update Statements, Supporting Information and Analysis 13
4.6.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.6 14

4.7 Initiative 7.3.5.7: LiDAR Inspections of Vegetation Around Distribution Electric Lies and Equipment 14

4.7.1 2021 WMP Update Statements, Supporting Information and Analysis 14

4.7.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.7 14

4.8 Initiative 7.3.5.8: LiDAR Inspections of Vegetation Around Transmission Electric Lines and Equipment 15

4.8.1 2021 WMP Update Statements, Supporting Documentation, and Analysis 15

4.8.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.8 15

4.9 Initiative 7.3.5.9: Other Discretionary Inspection of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations..... 15

4.9.1 2021 WMP Update Statements, Supporting Information and Analysis 16

4.9.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.9 16

4.10 Initiative 7.3.5.10: Other Discretionary Inspection of Vegetation Around Transmission Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations..... 17

4.10.1 2021 WMP Update Statements, Supporting Information, and Analysis 17

4.10.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.10 17

4.11 Initiative 7.3.5.11: Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment 17

4.11.1 2021 WMP Update Statements, Supporting Information, and Analysis 18

4.11.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.11 18

4.12 Initiative 7.3.5.12: Patrol Inspections of Vegetation Around Transmission Electric Lines and Equipment 18

4.12.1 2021 WMP Update Statements, Supporting Information, and Analysis 18

4.12.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.12. 19

4.13 Initiative 7.3.5.13: Quality Assurance/Quality Control of Inspections..... 19

4.13.1 2021 WMP Update Statements, Supporting Information, and Analysis 19

4.13.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.13 19

4.14 Initiative 7.3.5.14: Recruiting and Training of Vegetation Management Personnel ... 20

4.14.1 2021 WMP Update Statements, Supporting Information, and Analysis 20

4.14.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.14 21

4.15 Initiative 7.3.5.15: Remediation of At-Risk Species 21
4.15.1 2021 WMP Update Statements, Supporting Information, and Analysis 21
4.15.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.15 22
4.16 Initiative 7.3.5.16: Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment 22
4.16.1 2021 WMP Update Statements, Supporting Information, and Analysis 22
4.16.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.16 23
4.17 Initiative 7.3.5.17: Substation Inspections 23
4.17.1 2021 WMP Update Statements, Supporting Information, and Analysis 23
4.17.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.17 24
4.18 Initiative 7.3.5.18: Substation Vegetation Management 24
4.18.1 2021 WMP Update Statements, Supporting Information, and Analysis 24
4.18.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.18 25
4.19 Initiative 7.3.5.19: Vegetation Inventory System 25
4.19.1 2021 WMP Update Statements, Supporting Information, and Analysis 25
4.19.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.19 26
4.20 Initiative 7.3.5.20: Vegetation Management to Achieve Clearances around Electric Lines and Equipment 26
4.20.1 2021 WMP Update Statements, Supporting Information, and Analysis 26
4.20.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.20 31
5. Conclusion 31

LIST OF TABLES

Table 1. Energy Safety's Analysis of BVES's 2021 WMP Update Vegetation Management Initiatives 1

1. Introduction and Framework

The Office of Energy Infrastructure Safety (Energy Safety) must, on an annual basis, audit the vegetation management work performed by an electrical corporation upon notification that the electrical corporation has completed a substantial portion of the vegetation management requirements in its Wildfire Mitigation Plan (WMP).[1] In each audit, Energy Safety must specify any failure of the electrical corporation to fully comply with the vegetation management requirements in the WMP.[2] To effectuate this requirement, Energy Safety identified both quantitative commitments (e.g., miles of lines to inspect) and verifiable statements (e.g., training of personnel) in the vegetation management section of Bear Valley Electric Service Inc.'s (BVES's) 2021 WMP Update and conducted this audit to determine if BVES performed the work required by each of those commitments and statements.

In performing the audit, Energy Safety found that BVES performed the work required for the vegetation management initiatives in its 2021 WMP Update, as detailed in Table 1 below. As a result of BVES completing all the work required, no corrective actions are required, and a subsequent Audit Report will not be prepared by Energy Safety.

Table 1. Energy Safety's Analysis of BVES's 2021 WMP Update Vegetation Management Initiatives

2021 WMP Update Initiative Number	2021 WMP Update Initiative Name	Findings
7.3.5.1	Additional Efforts to Manage Community and Environmental Impacts	Performed all required work
7.3.5.2	Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment	Performed all required work
7.3.5.4	Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions	Performed all required work

[1] Cal. Pub. Util. Code §8386.3, subd. (c)(5)(A); 2023 Compliance Guidelines, Section 6.1, page 14.
[2] *Id.*

2021 WMP Update Initiative Number	2021 WMP Update Initiative Name	Findings
7.3.5.5	Fuel Management and Reduction of "Slash" from VM Activities	Performed all required work
7.3.5.6	Improvement of Inspections	Performed all required work
7.3.5.7	LiDAR Inspections of Vegetation Around Distribution Electric Lines and Equipment	Performed all required work
7.3.5.9	Other Discretionary Inspection of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations	Performed all required work
7.3.5.11	Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment	Performed all required work
7.3.5.13	Quality Assurance/Quality Control of Inspections	Performed all required work
7.3.5.14	Recruiting and Training of Vegetation Management Personnel	Performed all required work
7.3.5.15	Remediation of At-Risk Species	Performed all required work
7.3.5.16	Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment	Performed all required work
7.3.5.17	Substation Inspections	Performed all required work

2021 WMP Update Initiative Number	2021 WMP Update Initiative Name	Findings
7.3.5.18	Substation Vegetation Management	Performed all required work
7.3.5.19	Vegetation Inventory System	Performed all required work
7.3.5.20	Vegetation Management to Achieve Clearances Around Electric Lines and Equipment	Performed all required work

2. Scope of the Substantial Vegetation Management Audit

To conduct this audit, Energy Safety evaluated the vegetation management section of BVES's 2021 WMP Update.[3] The 2021 WMP Update guidelines contained 20 initiatives in the vegetation management section. In reviewing the vegetation management section and initiatives in BVES's 2021 WMP Updates, Energy Safety identified both quantitative commitments (e.g., miles of lines to inspect, minimum work quality thresholds, etc.) and verifiable statements (e.g., the utility will hold public meetings with communities regarding future vegetation management activities, the utilities will train personnel on utility protocols, etc.) made by BVES. Energy Safety then reviewed available information and requested additional documentation to support the assessment of whether BVES met its quantitative commitments and executed its verifiable statements.

On February 7, 2022, BVES submitted a letter to Energy Safety via Energy Safety's e-filing system notifying that it had "completed a substantial portion of the vegetation management requirements of its 2021 Wildfire Mitigation Plan."[4]

[3] Resolution WSD-11-Attachment 2.2: 2021 Wildfire Mitigation Plan Guidelines Template, pages 54-55.
[4] Via letter from BVES's President, Treasurer & Secretary to the Director of Energy Safety.

3. Background

The following section provides an overview of BVES's various vegetation management programs described in its 2021 WMP Update.

3.1 Vegetation Management Programs

BVES implements the following programs to perform vegetation management work along its distribution lines: Enhanced Vegetation Management, LiDAR Inspections and Patrol Inspections. Each of these programs is described in more detail below for reference throughout the audit.

- **Enhanced Vegetation Management:** EVM includes the following:
    - **Preventative Vegetation Management:** This scope of work encompasses ensuring vegetation on BVES overhead sub-transmission and distribution lines adheres to identified clearance specifications.[5]
    - **Corrective Vegetation Clearance:** This scope of work consists of completing corrective and emergent vegetation orders to fix clearance discrepancies that the contractor or BVES discovers. If an order is designated as High Priority, the contractor must prioritize that work and make the correction immediately.[6]
    - **Emergency Vegetation Clearance:** This scope of work includes completing maintenance on an as-needed basis for any major disaster or emergency events. For example, if a storm results in fallen trees and branches, the contractor must mobilize as soon as possible to clear the vegetation.[7]
- **LiDAR Inspection:** BVES conducts one LiDAR sweep per year to evaluate the effectiveness of clearance efforts and identify potential wildfire hazards. [8]
- **Patrol Inspections:** BVES's Inspection Program requires overhead facilities to receive an on-ground patrol inspection each year. A "patrol inspection" is a visual inspection designed to identify obvious problems and hazards.[9]

[5] BVES 2021 WMP Update, page 165
[6] BVES 2021 WMP Update, page 165
[7] BVES 2021 WMP Update, page 165
[8] BVES 2021 WMP Update, page 155
[9] BVES 2021 WMP Update, page 157

3.2 2021 WMP Update Vegetation Management Initiatives

In its 2021 WMP Update, BVES identified 17 vegetation management initiatives, as listed below.

1. Additional efforts to manage community and environmental impacts
2. Detailed inspections of vegetation around distribution electric lines and equipment
3. Emergency response vegetation management due to red flag warning or other urgent conditions
4. Fuel management and reduction of “slash” from vegetation management activities
5. Improvement of inspections
6. LiDAR inspections of vegetation around distribution electric lines and equipment
7. Other discretionary inspection of vegetation around distribution electric lines and equipment, beyond inspections mandated by rules and regulations
8. Other discretionary inspection of vegetation around transmission electric lines and equipment, beyond inspections mandated by rules and regulations
9. Patrol inspections of vegetation around distribution electric lines and equipment
10. Quality assurance / quality control of inspections
11. Recruiting and training of vegetation management personnel
12. Remediation of at-risk species
13. Removal and remediation of trees with strike potential to electric lines and equipment
14. Substation inspections
15. Substation vegetation management
16. Vegetation inventory system
17. Vegetation management to achieve clearances around electric lines and equipment

4. Analysis

This section contains an initiative-by-initiative analysis of all vegetation management initiatives in BVES's 2021 WMP Update. Each subsection provides verifiable statements, supporting information, Energy Safety's analysis for an initiative, followed by a summary of Energy Safety's findings.

4.1 Initiative 7.3.5.1: Additional Efforts to Manage Community and Environmental Impacts

The purpose of this initiative is to "mitigate negative impacts from utility vegetation management to local communities and the environment, such as coordination with communities to plan and execute vegetation management work or promotion of fire-resistant planting practices."[10]

4.1.1 2021 WMP Update Initiative Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states that "BVES has created Fuels Management and Defensible Space Community Programs to enable more collaborative activities within the mountainous service area and to bolster existing fuels management activities BVES otherwise performed through contracted vegetation inspectors and maintenance personnel."[11] Energy Safety reviewed "Outreach 2021 Fuels Management and Defensible Space Community Programs" [12] provided by BVES, which includes Facebook posts and defensible space information posted on the BVES website. The Facebook posts include an image from Big Bear Fire Department describing how to make landscape a defensible space, a guide on how to plant a fire-safe garden and landscape, and how to protect homes and the mountain from fires. The Tree Trimming Program posted on the BVES website explains free tree trimming services, safety tips and prevention, and planting the right trees in the right places. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding collaborative activities within the mountainous service area and to bolster existing fuels management activities.

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[10] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2023).
[11] BVES 2021 WMP Update, page 149
[12] DR-123, response to question 1a, Attachment "2a 2021 BVES fuels management outreach"

BVES's 2021 WMP Update continues by stating that "BVES will conduct outreach with the USFS, CAL FIRE and Big Bear Fire Department in an effort to develop collaborative measures in the area of fuels management in 2021."[13] Energy Safety reviewed documentation,[14] which included screenshots from Outlook regarding calendar listings of meetings throughout 2021. Per BVES, the following were dates of meetings conducted in 2021:

- March 10, 2021, IEFSA – attended by CAL FIRE, Big Bear Fire Department, San Bernardino Fire Department, USFS, among others.
- June 3, 2021, SCE PSPS Working Group – includes CAL FIRE and San Bernardino Fire Department.
- July 21, 2021, FSBB – attended by Big Bear Fire Department, San Bernardino Fire Department, USFS, among others.
- August 12, 2021, City of Big Bear Lake Utility Coordination Meeting - attended by San Bernardino County, Big Bear Fire Department, USFS, City of Big Bear Lake, among others.
- October 12, 2021, Mountain Mutual Aid Association - attended by San Bernardino County, BB Fire Department, CAL FIRE, USFS, City of Big Bear Lake, among others.
- October 28, 2021, Manager's Lunch – City of Big Bear Lake, Big Bear Fire Department, USFS, among others.
- October 4, 2021, CAL FIRE visit – CAL FIRE. [15]

Energy Safety also reviewed documentation,[16] which includes the Outreach 2021 Fuels Management and Defensible Space Community Programs noted in the statement above. Per BVES, the fuels management and defensible space programs provide useful information to BVES customers. This includes "Plant the Right Tree in the Right Place" and "Defensible Space" information. BVES posted this information on social media and the company website.[17] Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding outreach programs to develop collaborative measures in the area of fuels management in 2021.

[13] BVES 2021 WMP Update, page 149
[14] DR-123, response to question 2a, Attachment "2b Collaboration for Community and Environmental Impacts"
[15] DR-123, response to question 2b
[16] DR-123, response to question 2a, Attachment "2a 2021 BVES fuels management outreach"
[17] DR-123, response to question 1b

In its 2021 WMP Update, BVES states, "BVES will continue outreach, support, and participate in community-based fuels management and defensible space programs and establish communications with the USFS to determine interest in working cooperatively on fuels reduction and defensible space efforts."[18] Energy Safety reviewed the social media posts, BVES website information, and Outlook support regarding calendar listing and meetings with groups throughout 2021. Refer to the support referenced in the statements above for more information. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding continued outreach, support, and participation in community-based fuels management and defensible space programs.

4.1.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.1

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.1: Additional Efforts to Manage Community and Environmental Impacts.

4.2 Initiative 7.3.5.2: Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment

The purpose of this initiative is "careful visual inspections of vegetation around the right-of way, where individual trees are carefully examined, visually, and the condition of each rated and recorded."[19]

4.2.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states that "this initiative aligns with GO 165, which requires utilities to execute careful, visual inspections of overhead electric distribution lines and equipment. This includes individual pieces of equipment and structures that are carefully examined to ensure vegetation clearances established in GO 95 are established."[20] Energy Safety reviewed an excel spreadsheet,[21] which includes the 2021 vegetation record of completed work sorted by date, location, species of tree, and type of cut. Overall, Energy Safety noted that there was a total of 7,839 tree trims and 157 tree removals performed by

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[18] BVES 2021 WMP Update, page 150

[19] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

[20] BVES 2021 WMP Update, page 150

[21] DR-123, response to question 3a, Attachment "3a 2021 Vegetation Complete Record"

BVES during 2021. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding utilities to execute careful, visual inspections of overhead electric distribution lines and equipment in alignment with GO 165.

BVES's 2021 WMP Update continues by stating that "a 'detailed inspection' is a more careful visual exam of individual pieces of equipment. The inspector records the results of the visual examinations and rates the condition of the vegetation."[22] Energy Safety reviewed an excel spreadsheet referenced,[23] which includes the 2021 detailed inspection record sorted by date, location, vegetation issue, and pole number. Furthermore, the spreadsheet includes a total of three findings throughout 2021, which details the priority, date inspected, date completed, details of the inspection (i.e., tree touching primary, pines growing into/under primary, and tree close to primary and needs to be removed). Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the performance of detailed inspections.

BVES's 2021 WMP Update explains that "BVES conducts these inspections at least once every five years in compliance with GO 165 and GO 95 (Rule 18)."[24] Energy Safety reviewed the detailed inspection schedule[25] provided by BVES, which includes the substation, circuit, five-year detail for the last and next inspection, and three-year detail for the last and next inspection. Additionally, BVES provided the inspection sign-off sheet,[26] that includes the circuit name, inspector sign-off, inspection type, voltage, off cycle, and date of the inspection. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding inspections in compliance with GO 165 and GO 95.

4.2.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.2

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.2: Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment.

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[22] BVES 2021 WMP Update, page 150
[23] DR-123, response to question 4a, Attachment "4a 2021 Detailed Inspection Vegetation Findings"
[24] BVES 2021 WMP Update, page 150
[25] DR-123, response to question 5a, Attachment "5a 2021 Detailed Inspection Schedule"
[26] DR-123, response to question 5a, Attachment "5a 2021 Detailed Inspection Signoff sheet"

4.3 Initiative 7.3.5.3: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is "careful visual inspections of vegetation around the rights-of way, where individual trees are carefully examined, visually, and the condition of each rated and recorded."[27]

4.3.1 2021 WMP Update Statements, Supporting Information and Analysis

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[28] As BVES does not have transmission lines, this initiative does not apply to BVES so no analysis is needed.

4.3.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.3

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[29] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

4.4 Initiative 7.3.5.4: Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions

The purpose of this initiative is to describe the utility's vegetation management in advance of weather conditions that increase ignition probability and wildfire consequence.[30]

4.4.1 2021 WMP Update Statements, Supporting Information and Analysis

In its 2021 WMP Update, BVES states that "BVES executes robust and detailed vegetation management and inspection initiatives according to detailed specifications, scope, and

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[27] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[28] BVES 2021 WMP Update, page 151
[29] BVES 2021 WMP Update, page 151
[30] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

schedules. BVES has developed detailed work plans, which enable compliance and tracking adherence to CPUC rules as well as state and federal laws. This detailed schedule-based approach allows for proper documentation and auditing of vegetation management and inspection programs."[31] According to BVES, it outlines detailed work plans in "6a BVES Inc. Vegetation Management and Vegetation Management QC Programs policy and procedures."[32] In the document provided, BVES explains how the vegetation management program enables compliance and tracking that adheres to state and federal laws. [33] Energy Safety reviewed the policy and procedure provided by BVES. Per page 2 of the policy, BVES states the following vegetation clearance standards: California Public Utilities Commission (CPUC) General Order 95 (GO-95), Rules for Overhead Electric Line Construction, Rule 35 Vegetation Management and Appendix E Guidelines to Rule 35 (trimming guidelines) provides minimum vegetation clearance standards applicable to BVES's T&D system. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the execution of robust and detailed vegetation management and inspection initiatives.

BVES's 2021 WMP Update continues by stating that "the utility created the vegetation management plan with wildfire prevention in mind, collaborating with the City of Big Bear Lake, local Fire Departments, and the US Forest Service. The plan will be reviewed and updated on an as-needed basis not to exceed three-years, depending on changing conditions."[34] Energy Safety reviewed documentation referenced "7a Documentation of Wildfire Prevention Meetings," [35] which supports meetings with the City of Big Bear Lake, local Fire Departments, and US Forest Service in 2021. The wildfire prevention meeting support includes an invitation from BVES to the local community for an hour-long discussion about wildfire safety, and the Inland Empire Fire Safe Alliance meeting agendas during May and July of 2021. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the creation of the vegetation management plan with wildfire prevention.

BVES's 2021 WMP Update explains that "BVES tracks conditions found during the detailed inspections and evaluates the types and quantity of conditions in order to identify trends and remedial actions."[36] According to BVES, it did not observe any vegetation trends from detailed inspections in 2021. BVES had a total of three findings in 2021 during detailed inspections, which is a small sample size of violations that it is difficult to identify trends. [37] Therefore, Energy Safety's audit found BVES provided information consistent with the

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[31] BVES 2021 WMP Update, page 152
[32] DR-123, response to question 6a, Attachment "6a BVES Inc. Vegetation Management and Vegetation Management QC Programs policy and procedures"
[33] DR-123, response to question 6a
[34] BVES 2021 WMP Update, page 152
[35] DR-123, response to question 7a, Attachment "7a Documentation of Wildfire Prevention Meetings"
[36] BVES 2021 WMP Update, page 152
[37] DR-123, response to question 8a

completion of the work identified in this statement regarding the tracking of conditions during the detailed inspections.

4.4.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.4

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.4: Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions.

4.5 Initiative 7.3.5.5: Fuel Management and Reduction of "Slash" from VM Activities

The purpose of this initiative is to describe the utility's efforts to reduce fuel near "potential sources of ignition, including both reduction or adjustment of live fuel… and of dead fuel, including 'slash' from vegetation management activities…."[38]

4.5.1 2021 WMP Update Statements, Supporting Information and Analysis

In its 2021 WMP Update, BVES states "BVES routinely engage in fuels removal activities to maintain forest health and target overgrown and scattered vegetation during vegetation management inspections."[39] Energy Safety reviewed a Request for Proposal,[40] which outlines the procedures and protocols of BVES fuel management and reduction of slash initiative. Per page 10 and 11 of the policy provided, the disposal of wastes section describes that the contractor, at contractor's expense, shall be responsible for removing and disposing of all wood and wood products and any other wastes generated by the requested services and work on a daily basis as the work progresses. BVES includes the specific requirements for disposal of wastes for the contractor on page 11 of the policy. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the fuel's removal activities.

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[38] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[39] BVES 2021 WMP Update, page 153
[40] DR-143, response to question 1a, Attachment "1a Policy of Fuel Management and Reduction of Slash"

4.5.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.5

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.5: Fuel Management and Reduction of "Slash" from VM Activities.

4.6 Initiative 7.3.5.6: Improvement of Inspections

The purpose of this initiative is to describe the utility's methods for "identifying and addressing deficiencies in inspections protocols and implementation by improving training and the evaluation of inspectors."[41]

4.6.1 2021 WMP Update Statements, Supporting Information and Analysis

In its 2021 WMP Update, BVES states "BVES maintains routine training and assessment of vegetation management practices. BVES also applies annual lessons learned or identified improvements and tracks developing inspection practices in the industry."[42] Energy Safety reviewed BVES training related to requirements for the Vegetation Management ("VM") program and VM quality assurance ("QA") / quality control ("QC") program.[43] The training occurred on October 22, 2021, and BVES also provided the training sign-up sheet as support,[44] which included nine signatures of BVES attendees. The background slide of the training materials included that proper clearance of vegetation around high voltage power lines is essential to public safety and reliability; violation of BVES's vegetation clearance standards significantly increased risk of fire ignition and power outages; the VM QA program ensured that tree work is completed to BVES standards; the VM QC program requires that certain designated BVES Staff perform VM QC checks on a frequent basis; and the VM QA/QC programs are essential to alerting BVES to the any discrepancies of the Vegetation management program. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the maintaining of routine training and assessment of vegetation management practices.

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[41] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[42] BVES 2021 WMP Update, page 154
[43] DR-143, response to question 2a, Attachment "2a BVES Vegetation Management Policies and Procedures Training"
[44] DR-143, response to question 2c, Attachment "2c Sign in Log of Vegetation Management Training"

4.6.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.6

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.6: Improvement of Inspections.

4.7 Initiative 7.3.5.7: LiDAR Inspections of Vegetation Around Distribution Electric Lies and Equipment

The purpose of this initiative is inspecting distribution right-of-ways using LiDAR.[45]

4.7.1 2021 WMP Update Statements, Supporting Information and Analysis

In its 2021 WMP Update, "BVES conducts one LiDAR sweep per year to evaluate the effectiveness of clearance efforts and identify potential wildfire hazards."[46] According to BVES, the LiDAR survey was conducted between April 14 through the 22 of 2021.[47] Energy Safety reviewed a LiDAR invoice from Davey Resource Group, Inc.,[48] which includes a description of services related to mobile LiDAR acquisition and classification. Additionally, BVES stated that all of the 211 above ground circuit miles of BVES service territory was surveyed during 2021.[49] Additionally, BVES provided email confirmation from Davey Resource Group, Inc.,[50] the contracted LiDAR team, which includes a map of the 211 circuit miles surveyed. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the conduction of LiDAR sweeps.

4.7.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.7

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.7: LiDAR Inspections of Vegetation Around Distribution Electric Lies and Equipment.

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[45] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[46] BVES 2021 WMP Update, page 155
[47] DR-143, response to question 3a
[48] DR-143, response to question 3b, Attachment "3b LiDAR invoice"
[49] DR-143, response to question 3c
[50] DR-210, response to question 3, Attachment "LiDAR Completion Acknowledgment Email"

4.8 Initiative 7.3.5.8: LiDAR Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is to describe the electrical corporation's methods for inspecting transmission rights-of-way using LiDAR.[51]

4.8.1 2021 WMP Update Statements, Supporting Documentation, and Analysis

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[52] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

4.8.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.8

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[53] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

4.9 Initiative 7.3.5.9: Other Discretionary Inspection of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations

The purpose of this initiative is inspecting the distribution right-of-way and the adjacent vegetation that may be hazardous, which goes beyond the minimum standards in rules and regulations.[54]

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[51] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[52] BVES 2021 WMP Update, page 155
[53] BVES 2021 WMP Update, page 155
[54] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

4.9.1 2021 WMP Update Statements, Supporting Information and Analysis

BVES states in its 2021 WMP Update, "BVES finds that there are off-schedule activities that require increased frequency or assessment of high-risk areas with hazardous tree or vegetation identification."[55] According to BVES, during the 2021 fire season, Energy Safety sent a letter to BVES suggesting additional wildfire mitigation activities be conducted to decrease the chance of any ignitions. In response, BVES increased the amount of vegetation QCs conducted, ensured LiDAR data was reviewed and corrected, increased amount of patrol inspections beginning with highest rick circuit, increased substation inspection for vegetation compliance, and increased rate of vegetation clearing by adding an additional vegetation crew.[56] Energy Safety reviewed documentation referenced [57] for support related to off-cycle activities. The support includes email communication describing the off-cycle activities, which include increase inspection of vegetation, increase asset inspection, move up Davey Resource Group, Inc. 3rd Party Ground Patrol, and increase rate of vegetation clearing by increasing Mowbray crews. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the off-schedule activities.

4.9.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.9

Based on the analysis above, Energy Safety finds BVES did provide information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.9: Other Discretionary Inspection of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations.

[55] BVES 2021 WMP Update, page 156
[56] DR-143, response to question 4a
[57] DR-143, response to question 3b, Attachment "4b Additional WMP Activities"

4.10 Initiative 7.3.5.10: Other Discretionary Inspection of Vegetation Around Transmission Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations

The purpose of this initiative is to describe the utility's transmission right of way inspection program to identify vegetation hazards.[58]

4.10.1 2021 WMP Update Statements, Supporting Information, and Analysis

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[59] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

4.10.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.10

BVES's 2021 WMP Update states, "BVES does not own or operate any circuits equal or greater than 65kV."[60] BVES did not include statements related to this initiative.

4.11 Initiative 7.3.5.11: Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment

The purpose of this initiative is to describe the utility's distribution right of way inspection program to identify obvious [vegetation] hazards.[61]

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[58] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[59] BVES 2021 WMP Update, page 157
[60] BVES 2021 WMP Update, page 157
[61] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

4.11.1 2021 WMP Update Statements, Supporting Information, and Analysis

BVES states in its 2021 WMP Update, "In compliance with GO 95 and 165, BVES's Inspection Program requires overhead facilities to receive an on-ground patrol inspection each year. A 'patrol inspection' is a visual inspection designed to identify obvious problems and hazards. These patrols are designed to identify gross defects. Gross defects may include, but are not limited to, vegetation encroachment inside of minimum clearance standards, etc."[62] Energy Safety reviewed email communication between BVES personnel regarding patrol findings for the VM program[63] that demonstrated adherence to the stated inspection program approach Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the on-ground patrol inspections.

4.11.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.11

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.11: Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment.

4.12 Initiative 7.3.5.12: Patrol Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is to inspect transmission rights-of-way to identify "obvious [vegetation] hazards. [64]

4.12.1 2021 WMP Update Statements, Supporting Information, and Analysis

BVES's 2021 WMP Update states "BVES does not own or operate any circuits equal or greater than 65kV."[65] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

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[62] BVES 2021 WMP Update, page 156
[63] DR-143, response to question 6a, Attachment "6a. Patrol Inspection findings for VM"
[64] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf(accessed March 8, 2024).
[65] BVES 2021 WMP Update, page 158

4.12.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.12.

BVES's 2021 WMP Update states "BVES does not own or operate any circuits equal or greater than 65kV."[66] As BVES does not have transmission lines, this initiative does not apply to BVES, so no analysis is needed.

4.13 Initiative 7.3.5.13: Quality Assurance/Quality Control of Inspections

The purpose of this initiative is to audit completed vegetation work, including its input into "decision-making and related integrated workforce management processes."[67]

4.13.1 2021 WMP Update Statements, Supporting Information, and Analysis

BVES states in its 2021 WMP Update, "BVES maintains routine training and assessment of electrical inspection activities. BVES also applies annual lessons learned or identified improvements and tracks developing inspection practices in the industry."[68] Energy Safety reviewed training materials provided in initiative 7.3.5.6 above. The background slide of the training materials included that proper clearance of vegetation around high voltage power lines is essential to public safety and reliability; violation of BVES's vegetation clearance standards significantly increased risk of fire ignition and power outages; the VM QA program ensured that tree work is completed to BVES standards; the VM QC program requires that certain designated BVES Staff perform VM QC checks on a frequent basis; and the VM QA/QC programs are essential to alerting BVES to any discrepancies of the Vegetation management program. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the routine training and assessment of electrical inspection activities.

4.13.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.13

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.13: Quality Assurance/Quality Control of Inspections.

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[66] BVES 2021 WMP Update, page 158

[67] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

[68] BVES 2021 WMP Update, page 159

4.14 Initiative 7.3.5.14: Recruiting and Training of Vegetation Management Personnel

The purpose of this initiative is to "identify and hire qualified vegetation management personnel" and to ensure they are "adequately trained to perform vegetation management work, according to the utility's wildfire mitigation plan, in addition to rules and regulations for safety."[69]

4.14.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states "BVES entered a contract to engage a full-time contract utility forester in its service territory as part of the BVES team. The contract forester's job duties include inspections, auditing, customer contact and issue resolution, work plan development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis. The Forrester is expected to be onsite as of April 2021."[70] Energy Safety reviewed an invoice from Davey Resource Group, which includes billed services for a Utility Forester,[71] The invoice states that the services were for September of 2021 and the Utility Forester billed 40 hours per week throughout the month. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the engagement of a full-time contracted utility forester.

Per BVES's 2021 WMP Update, "As a supplement, BVES routinely trains internal personnel and ensures all contracted resources retain proper certifications and licenses to perform accurate work in accordance with vegetation management requirements."[72] Energy Safety reviewed the certification from the International Society of Arboriculture,[73] which verifies that a BVES personnel are certified arborists. Furthermore, BVES provided copies of cardiopulmonary resuscitation ("CPR") and first aid certification cards from BVES personnel. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the training of internal personnel to ensure all contracted resources retain proper certification and licenses.

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[69] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

[70] BVES 2021 WMP Update, page 159

[71] DR-143, response to question 7a, Attachment "7a Forester Invoice"

[72] BVES 2021 WMP Update, page 160

[73] DR-143, response to question 8a, Attachment "8a Certification and License"

4.14.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.14

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.14: Recruiting and Training of Vegetation Management Personnel.

4.15 Initiative 7.3.5.15: Remediation of At-Risk Species

The purpose of this initiative is to "reduce ignition probability and wildfire consequences attributable to at-risk vegetation species…."[74]

4.15.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states "BVES will also consider the removal of any fast-growing trees, such as Poplars, Aspens, or Cottonwood, rotten or diseased trees, and healthy trees hanging over or leaning towards bare lines. All such trees will be trimmed to at least 12 feet minimum (or more if warranted) and evaluated for removal in each case. This information will be tracked in BVES's tree tracking program."[75] According to Bear Valley, BVES trimmed approximately 516 fast-growing trees, rotten or diseased trees, and healthy trees hanging over or leaning towards bare lines.[76] Additionally, BVES removed approximately 157 fast-growing trees, rotten or diseased trees, and healthy trees hanging over or leaning towards bare lines.[77] Energy Safety reviewed a spreadsheet which included a list of fast-growing trees that were removed in 2021. Per the "2021 Partners Data"[78] spreadsheet, Energy Safety reviewed the tab "Fast Grower Removal" which included an example of a birch tree removal during February of 2021. BVES also provided documentation referenced "Vegetation Management QC", [79] which includes the inspection report that concluded the trees were trimmed to the required 12 feet clearance. Furthermore, Energy Safety reviewed the VM Program annual audit report of 2021.[80] Per the audit report, BVES includes the following sections: VM line clearance, inspections, VM QC checks, VM quarterly reports, and the overall conclusion of the VM program. Therefore, Energy Safety's audit found BVES provided

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[74] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[75] BVES 2021 WMP Update, page 160
[76] DR-202, response to question 1
[77] DR-202, response to question 2
[78] DR-202, response to question 3, Attachment "2021 Partners Data"
[79] DR-202, response to question 4, Attachment "Vegetation Management QC"
[80] DR-202, response to question 5, Attachment "2021 VM Audit"

information consistent with the completion of the work identified in this statement regarding the consideration of the removal of any fast-growing trees.

4.15.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.15

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.15: Remediation of At-Risk Species.

4.16 Initiative 7.3.5.16: Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment

The purpose of this initiative is to "remediate trees that could potentially strike electrical equipment, if adverse events such as the failure at the ground-level of the tree or branch breakout within the canopy, occur."[81]

4.16.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states that "BVES performs strike potential tree removal as identified during vegetation management patrols and inspections. Typically, these types of trees receive immediate or readily available remediation or removal in order to reduce ignition risk and maintain the structural integrity of the ROW."[82] According to BVES, when a tree is identified as having strike potential, BVES sends out the utility arborist to determine if the tree poses a risk to the lines. If the tree is an immediate threat, remediation will be completed within 24 hours.[83] Energy Safety reviewed an Excel file provided by BVES referenced "2021 Tree Removals,"[84] which includes a list of tree removals with strike potential in 2021. Per the Excel file, the listing includes the location, tree species, Foreman, Grid ID, date of inspection, type of remediation prescribed, and date of remediation or removal. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the performance of strike potential tree removal.

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[81] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).

[82] BVES 2021 WMP Update, page 161

[83] DR-202, response to question 6

[84] DR-202, response to question 7, Attachment "2021 Tree Removals"

4.16.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.16

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.16: Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment.

4.17 Initiative 7.3.5.17: Substation Inspections

The purpose of this initiative is to inspect "vegetation surrounding substations."[85]

4.17.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states that "Substation inspections are mandated by GO 174 facilities inspections. These inspections are completed throughout the BVES service territory. BVES tracks conditions found during the detailed inspections and evaluates the types and quantity of conditions in order to identify trends and remedial actions."[86] Energy Safety reviewed Excel file "Substation Inspection Log"[87], which includes a listing of substation inspections completed through BVES service territory in calendar year 2021 including date, substation name, location and HFTD area. Energy Safety also reviewed three inspections as evidence that the inspections were completed and occurred during 2021.[88] The BVES substation inspection sheets included one completed inspection in August of 2021 and two completed inspections in September of 2021. According to BVES, it did not have any vegetation related issues other than weeds/grass growing in or around substations. BVES conducts annual weed abatement on all substations to mitigate issues. No additional trends were identified in 2021.[89] Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the substation inspections mandated by GO 174 facilities inspections.

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[85] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[86] BVES 2021 WMP Update, page 162
[87] DR-202, response to question 8, Attachment "Substation Inspection Log"
[88] DR-202, response to question 9, Attachment "Examples of Substation Inspections"
[89] DR-210, response to question 5

Per BVES's 2021 WMP Update, "vegetation overgrowth in and around substations is a potential source of ignition. Therefore, this program evaluates each substation for potential vegetation issues or non-compliance instances."[90] Energy Safety reviewed the BVES substation inspection sheets in the statement above.[91] The BVES substation inspection sheets included one completed inspection in August of 2021 and two completed inspections in September of 2021. Each inspection included that weed removal was noted as an item needing attention. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the vegetation overgrowth in and around substations.

4.17.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.17

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.17: Substation Inspections.

4.18 Initiative 7.3.5.18: Substation Vegetation Management

The purpose of this initiative is "to reduce the ignition probability and wildfire consequences attributable to contact from vegetation to substation equipment."[92]

4.18.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states "Substation inspections are mandated by the CPUC through GO 174 facilities inspections. Vegetation issues and non-compliance instances are remediated by this program. BVES also strives to install coverings on bare conductor to reduce the impact of vegetation or animals contacting bare conductors at the substation. Additionally, where feasible, BVES has used gravel, weed barriers, and asphalt to mitigate against vegetation growth in and around substations."[93] Energy Safety reviewed documentation[94] for three inspections that occurred in 2021 that had vegetation issues found and corrected. Energy Safety also reviewed "Substation WO,"[95] which includes a work order

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[90] BVES 2021 WMP Update, page 162
[91] DR-202, response to question 11, Attachment "Examples of Substation Inspections"
[92] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[93] BVES 2021 WMP Update, page 163
[94] DR-202, response to question 12, Attachment "Examples of Substation Inspections"
[95] DR-202, response to question 14, Attachment "Substation WO"

of BVES undergrounding a substation to remove bare conductors to reduce wildfire risk. The work order in 2021 shows that BVES installed coverings on bare conductor to reduce the impact of vegetation or animals contacting bare conductors at the substation. According to Bear Valley, prior to 2021, BVES substations had gravel and/or asphalt already installed to mitigate vegetation in and around substations.[96] BVES defines "weed barriers" as a layer of geotextile fabric, plastic, or cardboard that is placed under soil and mulch to help block weed seeds from getting the light they need to germinate and grow through the soil.[97] Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the substation inspections mandated by the CPUC through GO 174 facilities inspections.

4.18.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.18

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.18: Substation Vegetation Management.

4.19 Initiative 7.3.5.19: Vegetation Inventory System

The purpose of this initiative is having a "centralized inventory of vegetation clearances" that includes species, growth forecast, and grow-in, fly-in, or fall-in risk.[98]

4.19.1 2021 WMP Update Statements, Supporting Information, and Analysis

Per BVES's 2021 WMP Update, BVES states that "This initiative covers the inputs, documentation, and operational support that contribute to a centralized inventory of vegetation growth, types, and clearances to achieve fuels reduction and clearance objectives. This includes the data captured surrounding at-risk and invasive species identification, growth cycle and off-cycle growth targets, vegetation fuel and forecasted load, and damaged or dying tree accounting for those that may lead to a fall in or another ignition risk driver. This work includes practices described under BVES's Enhanced Vegetation Management Program as well as associated work executed by the contracted forester (in 2021)."[99] Energy Safety

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[96] DR-202, response to question 15
[97] DR-202, response to question 16
[98] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[99] BVES 2021 WMP Update, page 163

reviewed an Excel file referenced,[100] which is from BVES's centralized inventory that includes vegetation growth, types, and clearances from calendar year 2021. Per the Excel file, BVES highlighted the columns that describe the invasive species identification, growth cycle and off-cycle growth targets, vegetation fuel and forecasted load, and damaged or dying tree accounting for those that may lead to a fall in or another ignition risk driver. According to BVES, the tree inventory system that BVES used in 2021 was called Partner. Partner Software provides a utility field mapping software for utilities.[101] Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the centralized inventory of vegetation growth, types, and clearances to achieve fuels reduction and clearance objectives.

4.19.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.19

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.19: Vegetation Inventory System.

4.20 Initiative 7.3.5.20: Vegetation Management to Achieve Clearances around Electric Lines and Equipment

The purpose of this initiative is to "ensure that vegetation does not encroach upon the minimum clearances in GO95."[102]

4.20.1 2021 WMP Update Statements, Supporting Information, and Analysis

In its 2021 WMP Update, BVES states that "BVES has a vegetation management plan in place that meets or exceeds the PUC's GOs."[103] Energy Safety reviewed BVES's document named "BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures"[104] dated October 6, 2021, which outlines the vegetation management program on pages 2, 3 and 4. The procedure outlines the following requirements: Vegetation Clearance

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[100] DR-202, response to question 17, Attachment "2021 Partners Data"
[101] DR-202, response to question 18
[102] 2021 WMP Update guidelines, Resolution WSD-011, attachment 2.2, page 54-55: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf (accessed March 8, 2024).
[103] BVES 2021 WMP Update, page 164
[104] DR-202, response to question 19, Attachment "BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures"

Standards, which includes General Order 95 (GO-95), Rules for Overhead Electric Line Construction, Rule 35 Vegetation Management and Appendix E Guidelines to Rule 35; Radial Clearances; Blue Sky Requirements; Fast Growing Trees; Drip Line; Tree Trunk and Major Limb Exception; Tree Removal; Base of Poles/Structures; and Right of Way. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the vegetation management plan.

In its 2021 WMP Update, BVES states "the program includes three components: preventative vegetation management, corrective vegetation clearance, and emergency vegetation clearance. Each of these components need to adhere to particular specifications, detailed below.

- Preventative Vegetation Management: This scope of work encompasses ensuring vegetation on BVES overhead sub-transmission and distribution lines adheres to identified clearance specifications.
- Corrective Vegetation Clearance: This scope of work consists of completing corrective and emergent vegetation orders to fix clearance discrepancies that the contractor or BVES discovers. If an order is designated as High Priority, the contractor must prioritize that work and make the correction immediately.
- Emergency Vegetation Clearance: This scope of work includes completing maintenance on an as-needed basis for any major disaster or emergency events. For example, if a storm results in fallen trees and branches, the contractor must mobilize as soon as possible to clear the vegetation.
- The BVES vegetation management contract contains many provisions to reduce the accumulations of brush and trees wastes that may become fuel for wildfires:
- The Contractor is required to remove all wood and wood products and any other wastes generated by the requested service on a daily basis.
- Other requirements related to temporary slash piles, and proper disposal of wood and wood product waste according to applicable laws, rules, and regulations.
- Removal of all dead and rotting trees as well as those with the potential to fall on lines, even if they are outside the required clearance zone.
- Cutting back trees and limbs to a minimum radial clearance of 72 inches (6 ft) from conductors, going beyond the state compliance standard of 48 inches (4 ft)."[105]

Energy Safety reviewed the following documents and responses provided by BVES:

- BVES provided documentation referenced "Mowbray's Work Approval Forms"[106], which includes examples of vegetation management of overhead sub-transmission

[105] BVES 2021 WMP Update, pages 164-165
[106] DR-202, response to question 20, Attachment "Mowbray's Work Approval Forms"

and distribution lines. BVES provided a copy of three work approval forms, which described the crew type, hours worked, work type, and supervisor approval.

- Energy Safety requested that BVES provide three 2021-time stamped examples of instances where emergent vegetation orders to fix clearance discrepancies found by BVES or contractors occurred during calendar year 2021. According to BVES, it did not have any emergency call outs during the year 2021.[107]
- According to BVES, "High Priority" is defined as level 1 discrepancies which is further defined in the "BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures" dated October 6, 2021.[108] Per review of the BVES policy and procedure, examples of level 1 vegetation discrepancies are vegetation contacting, nearly contacting, or arcing to high voltage conductor, vegetation contacting low voltage conductor and compromising structure, etc. Furthermore, Energy Safety reviewed documentation referenced "Urgent Vegetation Management Orders"[109], which includes three 2021-time stamped examples of "High Priority" orders were found, was prioritized, and the correction was made immediately.
- Energy Safety requested that BVES provide one example (i.e., work order, email correspondence, invoice) for emergency vegetation clearance conducted to support work completing maintenance on an as-needed basis for any major disaster or emergency events in calendar year 2021. According to BVES, it did not have any major vegetation related outages in the year 2021.[110]
- BVES provided documentation referenced "Mowbray's Contract,"[111] which includes general conduct of how slash and wood waste are handled by vegetation management crews on pages 10 and 11. The contract states that "the Contractor shall ensure all BVES electric lines are clear of vegetation per California Public Utilities Commission (CPUC) General Order 95 (GO-95), Rules for Overhead Electric Line Construction, Rule 35 Vegetation Management and Appendix E Guidelines to Rule 35 (trimming guidelines)."
- BVES provided documentation referenced "731 Butte Removal,"[112] which includes an email request of removal, along with before and after photos. Additionally, BVES provided "Vegetation Management QC 2"[113], which includes three example of quality checks of vegetation management work that was completed and trimmed to a minimum of 12 feet/144 inches from energized conductors.

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[107] DR-202, response to question 21
[108] DR-202, response to question 23
[109] DR-202, response to question 22, Attachment "Urgent Vegetation Management Orders"
[110] DR-202, response to question 24
[111] DR-202, response to question 25, Attachment "Mowbray's Contract"
[112] DR-202, response to question 26a, Attachment "731 Butte Removal"
[113] DR-202, response to question 26b, Attachment "Vegetation Management QC 2"

- BVES provided documentation referenced "Vegetation Management QC 2," [114] which includes three example of quality checks of vegetation management work that was completed and trimmed to a minimum of 12 feet/144 inches from energized conductors.

Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the particular specifications within the preventative vegetation management, corrective vegetation clearance, and emergency vegetation clearance components.

Per BVES's 2021 WMP Update, "The utility-defined specifications comply with or exceed those outlined in GO 95, Rules for Overhead Electric Line Construction, Rule 35 Vegetation management, and Appendix E Guidelines to Rule 35 and Commission Decisions, such as D.17-12-024."[115] Energy Safety reviewed BVES document "BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures"[116] dated October 6, 2021, with highlighted sections on pages 2, 3 and 4. The highlighted section states how BVES complies or exceeds GO-95. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the utility-defined specifications.

BVES's 2021 WMP Update continues by stating that "As previously described BVES has unique local conditions that require it, in certain circumstances, to go beyond the regulated vegetation clearance standards. These enhanced specifications include:

- A minimum radial clearance of 72 inches between bare conductors and vegetation. (BVES's bare conductors operate between 2.4 kV or more volts, but less than 72 kV, which means it must have a minimum radial clearance of 48 inches.)
- No vertical coverage above BVES sub-transmission lines (34.5 kV).
- All vegetation within the drip line of primary conductors that has the potential of growing into the secondary system or within 12 feet of the energized primary conductors within the 3-year vegetation management program cycle will be removed.
- Dead, rotten, or diseased trees or portions of otherwise healthy trees – also known as "hazard trees" – that overhang or lean toward and may fall into a span of power lines will be removed. Note that this may apply to trees outside the clearance zone.
- Exceptions for tree trunks or major limbs that meet the following criteria: at the primary conductor level, mature tree trunks that are greater than 18 inches in diameter and major limbs that are greater than 10 inches in diameter with sufficient strength and rigidity may encroach within the minimum safe distance (72-inches) but not within 18 inches of the bare line conductors. The rigidity of the tree trunk or major limb must be

[114] DR-202, response to question 27, Attachment "Vegetation Management QC 2"
[115] BVES 2021 WMP Update, page 165
[116] DR-202, response to question 28, Attachment "BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures"

such that it would be impossible for it to encroach within 12 inches of the bare conductor at any time during high wind, heavy icing and snow, or other conditions."[117]

Energy Safety reviewed BVES documentation,[118] which included an audit report. That audit report contained information supporting the statement that BVES conducted no vertical coverage above BVES sub-transmission lines, all vegetation within the drip line of primary conductors that has the potential of growing into the secondary system or within 12 feet of the energized primary conductors within the 3-year vegetation management program cycle, and exceptions for tree trunks or major limbs. The report states that BVES inspected the Orange Avenue location during October 15, 2021. BVES targeted a total of eleven trees to determine if any trees were within 12' of uninsulated primary. Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the utility-defined specifications complying with or exceeding the compliance requirements.

BVES's 2021 WMP Update states that "BVES will also consider the removal of any fast-growing trees, such as Poplars, Aspens, or Cottonwood, rotten or diseased trees, and healthy trees hanging over or leaning towards bare lines. All such trees will be trimmed to 12 feet minimum and evaluated for removal in each case. This information will be tracked in BVES's tree tracking program."[119] Energy Safety reviewed documentation provided by BVES in initiative 7.3.5.15, which includes "2021 Partners Data,"[120] "Vegetation Management QC,",[121] and the VM Program annual audit report of 2021.[122] (Refer to initiative 7.3.5.15 above for more information on the documents provided.) Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the removal of any fast-growing trees.

Per BVES's 2021 WMP Update, "BVES tracks conditions found during the detailed inspections and evaluates the types and quantity of conditions in order to identify trends and remedial actions."[123] BVES tracked conditions found during detailed inspections in 2021 using an excel spreadsheet. Energy Safety reviewed Excel documentation referenced as "2021 Detailed Vegetation Findings,"[124] which includes all vegetation findings. The spreadsheet includes the recipient, reporter, date of inspection, priority, inspection type, details (i.e., tree encroaching 48," tree in primary), the completed date, and the foreman. Per BVES, it did not identify any trends and remedial actions in 2021 due to such a total of three findings throughout the

[117] BVES 2021 WMP Update, page 165
[118] DR-202, response to question 29, Attachment "Vegetation Management QC 2"
[119] BVES 2021 WMP Update, page 166
[120] DR-202, response to question 3, Attachment "2021 Partners Data"
[121] DR-202, response to question 4, Attachment "Vegetation Management QC"
[122] DR-202, response to question 5, Attachment "2021 VM Audit"
[123] BVES 2021 WMP Update, page 166
[124] DR-202, response to question 32, Attachment "2021 Detailed Vegetation Findings"

year.[125] Therefore, Energy Safety's audit found BVES provided information consistent with the completion of the work identified in this statement regarding the tracking of conditions found during the detailed inspections.

4.20.2 Energy Safety's Determination for 2021 WMP Update Initiative 7.3.5.20

Based on the analysis above, Energy Safety finds BVES provided information consistent with completion of the work identified in the 2021 WMP Update Initiative 7.3.5.20: Vegetation Management to Achieve Clearances around Electric Lines and Equipment.

5. Conclusion

Energy Safety reviewed the 17 vegetation management initiatives detailed in BVES's 2021 WMP Update and found that BVES performed all of the work specified. This audit is not an assessment of the quality of BVES's execution of its vegetation management program. No deficiencies were identified as a result Energy Safety's audit, therefore, no corrective actions are required.

Energy Safety finds that BVES substantially complied with the substantial portion of the vegetation management requirements in its 2021 WMP Update.[126]

[125] DR-202, response to question 33
[126] Pub. Util. Code, 8386.3(c)(5)(C).

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