



May 14, 2024

To: PacifiCorp
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SUBJECT: Office of Energy Infrastructure Safety's Report on PacifiCorp'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 report on PacifiCorp's 2021 Substantial Vegetation Management (SVM) audit. Energy Safety finds that PacifiCorp substantially complied with the substantial portion of the vegetation management requirements in its 2021 Wildfire Mitigation Plan Update.

The attached report follows Energy Safety's publication of its SVM audit on March 26, 2024, and PacifiCorp's subsequent response on April 5, 2024. Pursuant to statutory requirements, a copy of this report is issued to PacifiCorp, published on Energy Safety's 2021 SVM Docket¹ and provided to the California Public Utilities Commission.

Sincerely,

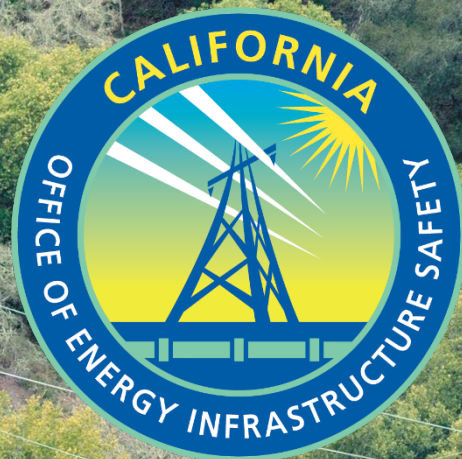
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¹ All documents related to PacifiCorp's 2021 SVM audit are available on Energy Safety's e-filing system under the "[2021-SVM](#)" docket number (accessed April 22, 2024).

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Attachment: PacifiCorp 2021 SVM Audit Report



OFFICE OF ENERGY INFRASTRUCTURE SAFETY

2021 SUBSTANTIAL VEGETATION MANAGEMENT AUDIT REPORT

PACIFICORP

May 2024

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1. Background

Pursuant to Public Utilities Code section 8386.3(c)(5), the Office of Energy Infrastructure Safety (Energy Safety) must audit the vegetation management work performed by, or on behalf of, the electrical corporation. The audit shall specify any failure of the electrical corporation to fully comply with the vegetation management requirements in the Wildfire Mitigation Plan (WMP).¹ Energy Safety then provides the audit to the electrical corporation and grants it a reasonable time to correct and eliminate any deficiency specified in the audit.² Following receipt and review of the electrical corporation's Corrective Action Plan, Energy Safety issues an audit report to the electrical corporation identifying whether the electrical corporation substantially complied with the substantial portion of the vegetation management requirements in the applicable year.³ This document is Energy Safety's Report on the 2021 Substantial Vegetation Management (SVM) Audit of PacifiCorp.

The 2021 WMP guidelines contained 20 initiatives in the vegetation management section. Two of the initiatives from the WMP guidelines did not apply to the 2021 vegetation management activities conducted by PacifiCorp. Therefore, Energy Safety reviewed the 18 vegetation management initiatives in PacifiCorp's 2021 WMP Update. For those 18 initiatives, 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 PacifiCorp's 2021 WMP Update and conducted an audit to determine if PacifiCorp performed the work required by each of those commitments and statements.

Energy Safety published the 2021 PacifiCorp SVM Audit on March 26, 2024. The Audit concluded that PacifiCorp did not perform all the work specified in two out of the 18 vegetation management initiatives in its 2021 WMP Update. Energy Safety specified corrective actions pertaining to the Audit and required PacifiCorp to provide a Corrective Action Plan. PacifiCorp submitted the Corrective Action Plan on April 5, 2024, with the

¹ Pub. Util. Code, § 8386.3(c)(5)(A).

² 2021 Substantial Vegetation Management Audit PacifiCorp (March 2024).

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56380&shareable=true>, accessed April 1, 2024).

³ 2023 Compliance Guidelines, Section 6.1 (September 2023). p. 15.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55586&shareable=true>, accessed April 1, 2024).

requested supporting documentation.⁴ Energy Safety completed analysis of the Corrective Action Plan as documented in Section 3 of this document.

2. 2021 SVM Audit Findings

Table 1 below summarizes Energy Safety’s findings from its 2021 PacifiCorp SVM Audit.

Table 1: 2021 WMP Update Vegetation Management Initiatives and Corresponding Findings

2021 WMP Update Initiative Number	2021 WMP Update Initiative Name	Determination ⁵
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	Did not perform all required work
7.3.5.3	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
7.3.5.5	Fuel Management and Reduction of “Slash” from VM Activities	Did not perform 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
7.3.5.8	LiDAR Inspections of Vegetation Around Transmission Electric Lines and Equipment	Performed all required work

⁴ PacifiCorp 2021 SVM Audit Corrective Action Plan (April 5, 2024).

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56465&shareable=true>, accessed April 1, 2024).

7.3.5.11	Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment	Performed all required work
7.3.5.12	Patrol Inspections of Vegetation Around Transmission 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
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

3. Analysis of Corrective Action Plan

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

PacifiCorp's 2021 inspection target was 1,476 miles of distribution lines associated with routine vegetation management. PacifiCorp completed 1,471 miles of inspections and did not complete inspection of five miles on Circuit 5R152. Energy Safety's Audit determined that PacifiCorp did not complete all of the work for this initiative.⁵

⁵ 2021 SVM Audit PacifiCorp (March 2024). p. 1, 16, 17.

Because the five missed inspection miles were completed shortly after 2021, Energy Safety's SVM Audit provided the following corrective action for Initiative 7.3.5.2 to ensure the missed miles were not double counted between compliance years 2021 and 2022:

PacifiCorp shall confirm that the five (5) missed miles were not counted towards meeting its 2022 target.⁶

In the Corrective Action Plan, PacifiCorp verifies that "the five (5) miles remaining, associated with circuit 5R152, did not count towards the 2022 detailed inspection target even though the work was rolled over and was completed shortly after 2021."⁷ Energy Safety finds that PacifiCorp sufficiently addressed the SVM Audit finding and corrective action for Initiative 7.3.5.2.

3.2 Initiative 7.3.5.5 Fuel Management and Reduction of "Slash" from Vegetation Management Activities

PacifiCorp's 2021 WMP Update explains that "In 2021, PacifiCorp plans to clear vegetation at 3,047 poles under the expanded pole clearing project."⁸ In its data request response, PacifiCorp stated that 2,872 poles were completed in calendar year 2021 per the data provided by the contractor.⁹ Energy Safety's SVM Audit found PacifiCorp did not provide information consistent with the completion of work related to the expanded pole clearing project in 2021.¹⁰

Energy Safety's SVM Audit provided the following corrective action for Initiative 7.3.5.5:

PacifiCorp shall: a) provide an explanation for why it did not meet the target for pole clearing, and b) detail the steps it is taking to ensure vegetation management operations are consistent with the targets stated in the WMP.¹¹

⁶ 2021 SVM Audit PacifiCorp (March 2024). p. 48.

⁷ PacifiCorp 2021 SVM Audit Corrective Action Plan (April 5, 2024). p. 6.

⁸ PacifiCorp 2021 WMP Update (March 5, 2021). p. 161.

⁹ CA 2021-WMP's OEIS Set 9 (1-7) 4-28-2023 (DR 116), Attach OEIS 9.4. (April 28, 2023).

¹⁰ 2021 SVM Audit PacifiCorp (March 2024). p. 22.

¹¹ 2021 SVM Audit PacifiCorp (March 2024). p. 48.

In the Corrective Action Plan, PacifiCorp states that the “number of poles identified to be cleared under this initiative is based on the previous year, however, may change due to changes in exemption status. In 2021, contractors were inconsistent in how they were reporting poles completed.”¹² PacifiCorp acknowledges that tracking of pole clearing actions has been inconsistent during the 2021 timeframe and has taken the following actions to address the inconsistencies:

PacifiCorp has developed a centralized pole clearing tracker...to allow improved insight into the status of the program and improved tracking. PacifiCorp is tracking additional information including poles cleared, treated, exempt, and customer refusals. This will improve the ability to track against the pole clearing target and minimize the potential for the contractor to only report poles worked. There are limitations within PacifiCorp’s current workflow management software, which can result in future tracking errors, which PacifiCorp is working to address through upgrading its work management vegetation management software (expected to be implemented in 2025).¹³

In the Corrective Action Plan, PacifiCorp also includes a screenshot image of the centralized pole clearing tracker which demonstrates the total number of poles identified, cleared, treated, and exempted in each district. While it is unclear whether this new, centralized pole clearing tracker eliminates the use of PacifiCorp’s Vegetation Management (PVM) database used in 2021 to track pole clearing, or if contractors are expected to document information in both the centralized pole clearing tracker and the PVM database, Energy Safety does acknowledge that PacificCorp is aware of this issue and that it is planning a long-term solution for upgrading its work management vegetation management software in 2025.

Energy Safety finds that PacifiCorp sufficiently addressed the SVM Audit finding and corrective action for Initiative 7.3.5.5.

¹² PacifiCorp 2021 SVM Audit Corrective Action Plan (April 5, 2024). p. 8.

¹³ PacifiCorp 2021 SVM Audit Corrective Action Plan (April 5, 2024). p. 8.

3.3 Summary of Determination

Energy Safety reviewed PacifiCorp’s Corrective Action Plan and determined that PacifiCorp sufficiently addressed the audit findings as shown in Table 2.

Table 2: Summary of Energy Safety’s Analysis of PacifiCorp’s Response and Corrective Action

Initiative Number and Name	Finding	Corrective Action Plan Response Determination
7.3.5.2 Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment	PacifiCorp completed 1,471 miles of its target of 1,476 miles of inspections in 2021. ¹⁴	Sufficient
7.3.5.5 Fuel Management and Reduction of “Slash” from Vegetation Management Activities	PacifiCorp completed clearance on 2,872 poles of its target of clearing 3,047 poles in 2021. ¹⁵	Sufficient

4. Substantial Compliance with the Substantial Portion of Vegetation Management Requirements

Energy Safety is required to assess whether the electrical corporation substantially complied with the substantial portion of the vegetation management requirements in the applicable year.¹⁶ Substantial compliance with the substantial portion of vegetation management requirements means that:

- 1) The electrical corporation’s deficiencies, after considering its planned corrective actions, have not detracted from the electrical corporation’s ability to achieve the objectives of its vegetation management programs;
- 2) The electrical corporation’s effort to fulfill the vegetation management requirement constituted a good faith effort to comply with the vegetation management requirements in the approved WMP; and

¹⁴ 2021 SVM Audit PacifiCorp (March 2024). p. 48.

¹⁵ 2021 SVM Audit PacifiCorp (March 2024). p. 48.

¹⁶ Pub. Util. Code, § 8386.3(c)(5)(C).

3) The electrical corporation completed the large majority of the vegetation management requirements in its approved WMP.¹⁷

As discussed in previous sections, Energy Safety's 2021 SVM audit found that PacifiCorp performed the work required for 16 of the 18 applicable vegetation management initiatives in its 2021 WMP Update.¹⁸ The two incomplete initiatives were identified in Energy Safety's SVM Audit, which found the following deficiencies:

- **Initiative 7.3.5.2** – Failure to meet target inspection miles by 2021. PacifiCorp completed 1,471 miles of the 1,476 mile target in the 2021 WMP Update.
- **Initiative 7.3.5.5** – Failure to meet target for the expanded pole clearing project. PacifiCorp completed 2,872 poles of the 3,047 pole target in 2021 WMP Update.

For the missed initiatives, Energy safety has analyzed PacifiCorp's corrective actions and their vegetation management program objectives as it relates to the 3 evaluation criteria. This analysis is discussed in further detail below and is the basis for the compliance determination in Section 5.

1. The electrical corporation's deficiencies, after considering its planned corrective actions, have not detracted from the electrical corporation's ability to achieve the objectives of its vegetation management programs.

Initiative 7.3.5.2:

PacifiCorp's 2021 WMP Update states that work mitigates the risk created by, "[t]rees and other vegetation growing under or adjacent to power lines within striking distance of conductors and electrical equipment."¹⁹ The WMP Update required PacifiCorp to perform the work for 1,476 miles of distribution lines and Energy Safety's audit found that PacifiCorp performed the work for 1,471 miles, which is 99% of the work required. Based on Energy Safety's review, the five incomplete miles associated with Circuit 5R152 were not located within the HFTD.²⁰ The fact that PacifiCorp completed inspections in the higher-risk areas,

¹⁷ 2023 Compliance Guidelines, Section 6.1 (September 2023). p. 15.

¹⁸ 2021 SVM Audit PacifiCorp. p. 1.

¹⁹ 2021 WMP Update (March 5, 2021). p. 159.

²⁰ DR-198, response to OEIS data request 17.13; attachment "2022_Contractor Miles Tracker – WE1231.xlsx."

and that PacifiCorp completed the remaining inspections shortly after the 2021 compliance period, demonstrates that PacifiCorp did ultimately achieve its risk reduction objective.

Although PacifiCorp fell short of completing the work required in its WMP Update, PacifiCorp did provide adequate documentation requested in the corrective action plan and has confirmed the missed inspection miles later completed after the compliance period were not double counted for the 2022 inspection year. Further, PacifiCorp inspected more miles in 2021 (1471 miles) than it did in 2020 (909 miles)²¹ demonstrating a year over year improvement in this initiative. This improvement enabled PacifiCorp to better achieve the initiative objective in 2021.

Initiative 7.3.5.5:

PacifiCorp's 2021 WMP Update states "vegetation growing at the base of poles can contribute to fuel loading."²² Pole brushing is intended to reduce the risk that a spark from electrical equipment might ignite vegetation near the base of a pole. PacifiCorp completed clearing around 2,872 poles out of the 3,047 pole clearing target, which is a 94% completion rate. Further, PacifiCorp increased pole clearing activities in 2021 (3,047 poles)²³ as compared to 2020 (2,164 poles).²⁴ Despite falling short of the 2021 target, PacifiCorp's expanded pole clearing in 2021 reduced the ignition risk created by vegetation near the base of poles and demonstrates a year over year improvement in this initiative.

Energy Safety concludes that PacifiCorp achieved the objectives of its vegetation management programs for Initiatives 7.3.5.2 and 7.3.5.5.

2. The electrical corporation's effort to fulfill the vegetation management requirement constituted a good faith effort to comply with the vegetation management requirements in the approved WMP Update.

²¹ 2020 SVM Audit PacifiCorp. p. 16.

²² 2021 WMP Update p. 161.

²³ 2021 WMP Update. (March 5, 2021). p. 161.

²⁴ 2020 WMP (February 24, 2023) p. 26. (<https://www.pacificorp.com/community/safety/wildfire-mitigation-plans.html>, accessed May 6, 2024).

Initiative 7.3.5.2:

The fact that PacifiCorp fell only five miles short of its WMP target supports a conclusion that PacifiCorp made a good faith effort to complete the inspections. Upon learning of the missed inspection target, PacifiCorp promptly performed the inspections shortly after the end of 2021.

PacifiCorp also increased the miles of inspections it performed in 2021 (1,471 miles)²⁵ in comparison to 2020 (909 miles). Further, the inspections PacifiCorp performed during 2021 resulted in removal of more hazard trees during 2021 than it did in 2020 demonstrating PacifiCorp made a good faith effort to complete all the required inspections and remove hazard trees to reduce the risk of ignitions.

Initiative 7.3.5.5:

PacifiCorp stated that weather and inconsistent pole completion reporting by contractors caused the missed target for Initiative 7.3.5.5 related to pole brushing. With respect to the reporting, PacifiCorp was unaware of the reporting and tracking issue that led to the missed pole brushing target in 2021 and believed it had completed all the pole brushing work. Upon learning of the reporting issue, PacifiCorp developed a centralized pole clearing tracker to improve tracking and reporting consistency. Further, PacifiCorp plans to upgrade its work management vegetation management software in 2025 to ensure this does not reoccur in future compliance years. Energy Safety will continue to track implementation of the tracking and reporting for pole brushing in future compliance years.

PacifiCorp has increased both the vegetation management inspections and pole brushing activities between 2020 and 2021 and continues to increase these targets year over year. In addition, PacifiCorp completed the missed inspection miles shortly after the 2021 compliance period and has implemented a long-term mitigation plan for the reporting issue that led to the missed pole brushing target.

Energy Safety concludes that PacifiCorp made a good faith effort to perform the work associated with Initiatives 7.3.5.2 and 7.3.5.5.

²⁵ 2020 SVM Audit PacifiCorp. p. 16.

3. The electrical corporation completed the large majority of the vegetation management requirements in its approved WMP Update.

Initiative 7.3.5.2:

PacifiCorp inspected 99% of the miles of distribution lines required by Initiative 7.3.5.2.

Initiative 7.3.5.5:

PacifiCorp cleared 94% of the poles required by Initiative 7.3.5.5.

PacifiCorp completed the majority of work required for these two initiatives. Although not fully compliant with the WMP Update, PacifiCorp did complete the work for 16 out of the 18 vegetation management initiatives in its WMP Update which is an 89% completion rate.

Energy Safety finds that PacifiCorp completed the large majority of applicable vegetation management requirements for Initiatives 7.3.5.2 and 7.3.5.5 as well as the large majority of the work for vegetation management Initiatives in its 2021 WMP Update.

5. Conclusion

Energy Safety concludes that PacifiCorp substantially complied with the substantial portion of the vegetation management requirements in its 2021 WMP Update.

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