DATA REQUEST SET OEIS-P-WMP 2025-SCE-002

To: Energy Safety Prepared by: Napa Tayavibul Job Title: Senior Advisor Received Date: 5/23/2025

Response Date: 5/29/2025

Question 01.a:

Regarding Discontinuing Heli-Saw Trimming as a Part of Integrated Vegetation Management:

On page 349 of its 2026-2028 WMP, SCE describes integrated vegetation management (IVM) practices it tested within its service territory between October 2021 and January 2024. These include a tree growth regulator (TGR) pilot program, goat grazing, a "Low Growth Pilot" that compared the effectiveness of mechanical, chemical, and biological controls, and bulk tree trimming using a heli-saw. "Based on research and experience" SCE chose not to include heli-saw trimming in its IVM plans.

a. Describe what research findings led SCE to exclude the heli-saw from its IVM plans (e.g., trimming effectiveness, cost, environmental considerations, safety, tree trimming quality, etc.).

Response to Question 01.a:

In 2022-2024, SCE solicited information from heli-saw vendors and also researched the experience of other utility companies¹ to evaluate the utilization for SCE's Vegetation Management program. After further consideration and review, SCE decided not to move forward with this methodology due to various factors including, but not limited to, safety concerns such as falling material and increased potential fire hazards; limited scope of work within the service area; regulatory requirements (e.g., permitting); and potential environmental impacts such as cutting protected trees or disturbing wildlife habitats.

¹ See, e.g., <u>https://fireaviation.com/2022/03/02/pge-criticised-by-cal-fire-for-how-a-heli-saw-was-used/</u>

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Question 02.a-b:

Regarding Work Order Priority Levels:

On page 366 of its 2026-2028 WMP, SCE identifies two categories that designate a tree as requiring work within a Priority 1 timeline: 24 hours and 72 hours. Furthermore, SCE identifies four categories that designate a tree as requiring work within a Priority 2 timeline. The four categories are as follows (abbreviations and timelines to complete work are in parentheses): within Regulatory Clearance Distance (RCD; less than 30 days), between RCD and Trigger Clearance Distance (RCD; less than 90 days), hazard management and dead and dying trees (less than 180 days), and strain or abrasion to secondary distribution lines. SCE does not include a timeline to remove strain or abrasion due to trees contacting secondary distribution lines.

a. Specify what timeline SCE has set to mitigate tree contact causing strain or abrasion to secondary distribution lines.

b. Complete the table, below, to disaggregate the Priority 1 and Priority 2 condition timeline categories.

Priority Level	0-30 Days	31-90 Days	91-180 Days	181+ Days	Total
Priority 1 (24 hours)					
Priority 1 (72 hours)					
Priority 2 - Less than RCD (<30 days)					
Priority 2 - Between RCD and TCD (<90 days)					
Priority 2 - Hazard Tree Management and Dead					
and Dying Tree (<180 days)					
Strain or Abrasion on Secondary Lines					

Number of Past Due Vegetation Management Work Orders by Age and Priority Level Timeline Category

Response to Question 02.a-b:

Please see SCE's response to OEIS' questions below.

a.) When vegetation is found to be causing strain and abrasion on secondaries, remediation is performed within the guidelines of GO95 Rule 18A as a level 2 and typically mitigated within 90 days.

b.) SCE presents the information below in the requested table format, disaggregating the P1 and P2 categories as of 3/7/25. This information was also provided in SCE's 2026-2028 WMP, Table 9-8; however, the P2 category in the WMP also included 2,599 past due vegetation management work orders for P2s with ≥ GRCD (180 days). As a result, the total number of past due vegetation management work orders identified in this response will vary from the totals shown in SCE's 2026-2028 WMP, Table 9-8.

Priority Level	0-30	31-90	91-180	181+	Total
	Days	Days	Days	Days	
Priority 1 (24 hours)	0	0	0	0	0
Priority 1 (72 hours)	0	0	0	0	0
Priority 2 - Less than RCD (<30	1,727	55	22	2	1,806
days)					
Priority 2 - Between RCD and	11,751	117	108	67	12,045
TCD (<90 days)					
Priority 2 - Hazard Tree	30	25	141	89	285
Management and Dead and Dying					
Tree (<180 days)					
Strain or Abrasion on Secondary	N/A	N/A	N/A	N/A	N/A
Lines ¹					

Lastly, SCE clarifies that timelines associated with the remediations are internal guidelines and are not formal WMP targets. As noted in the UVM documents, these timelines may be subject to various constraints.

¹ Strain or Abrasion on Secondary Lines is not a formal category SCE tracks as part of its vegetation management inspections.

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Question 03.a:

Regarding Technosylva Modeling Framework Documents:

SCE states on page 79 of its 2026-2028 Base WMP that it "utilizes Technosylva-based wildfire modeling tools to assess wildfire consequences based on deterministic match-drop simulations at utility asset location."

a. Provide the manuals, procedure documents, or other modeling framework documents that Technosylva provides SCE related to Technosylva's modeling tools.

Response to Question 03.a:

Please see the attached document entitled "01_Supplemental Appendix B," which contains technical information regarding SCE's wildfire model, including technical details regarding Technosylva's modeling tools in the documentation standards required by OEIS for technical documentation set forth in the 2023-2025 WMP.

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Question 04.a-b:

Regarding Monetizing Attributes: On pages 46 and 94-99 of the SCE's 2026-2028 Base WMP, SCE describes the risk score and how it is calculated. On page 102 of SCE's 2026-2028 Base WMP, SCE specifies that it does not have monetized attributes at this time.

a. Provide a timeline of when monetization will occur, including specific and measurable milestones and expected completion dates.

b. Provide any bases or assumptions that are being or have been developed for the monetization.

Response to Question 04.a-b:

- a. In accordance with California Public Utilities Commission guidance set forth in the Risk-Based Decision-Making Framework proceeding (R.20-07-013) Phase II Decision (D.22-12-027), SCE plans to transition to the use of monetized attributes¹ by its next Risk Assessment Mitigation Phase (RAMP) filing. SCE's RAMP filing will be submitted on May 15, 2026.
- b. In compliance with Ordering Paragraph 2 of D.22-12-027, SCE is currently in the process of monetizing attributes ahead of its 2026 RAMP filing, based on the following:
 - i. Guidance from the most current published United States Department of Transportation (DOT) Value of Statistical Life (VSL) to reflect the monetized value of safety.
 - The most current version of the Lawrence Berkeley National Laboratory (LBNL) Interruption Cost Estimate (ICE) calculator to reflect the monetized value of reliability, released April 9, 2025.
- SCE also intends to revisit its existing monetized value of structures impacted, suppression, and restoration costs, based on information presented at recent OEIS workshops. Additionally, SCE is reviewing information submitted in SDG&E's 2025 RAMP (filed May 15, 2025) and PG&E's 2027 General Rate Case (GRC) application (filed May 15, 2025) and intends to evaluate CPUC Safety Policy Division (SPD) and other party feedback before making a final determination regarding monetized attributes.

¹Other than existing financial attributes, which are already monetized.

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Question 05.a-b:

Regarding 8- and 24-hour Simulations:

a. On pages 57-58 of SCE's 2026-2028 Base WMP, Figure SCE 5-12 shows a comparison of an 8-hour simulation fire size to a "final" fire size.

i. List and describe the datasets used to determine each fire size.

ii. Clarify at what hour of truncation SCE used for the "final" fire size.

b. On page 87 of SCE's 2026-2028 Base WMP, SCE discusses the use of maximum consequence based on truncated 8- or 24-hour simulation periods.

i. Explain SCE's process for choosing whether to use 8-hour or 24-hour simulations in a given situation.

ii. Describe how SCE differentiates using 8-hour vs. 24-hour simulations based on "extreme events"

Response to Question 05.a-b:

- a. See responses to each part, below:
 - i. SCE used a historical wildfire dataset from Simtable¹ to create Figure 5-12.
 - ii. SCE did not truncate the wildfire sizes depicted in Figure 5-12. The final wildfire sizes depicted in this figure vary from wildfire to wildfire.
- b. See responses to each part, below:
 - i. SCE currently uses 8-hour maximum consequence values for both its MARS and Integrated Wildfire Mitigation Strategy (IWMS) frameworks. However, SCE continues to explore the use of 24-hour simulations based on benchmarking with other large investor-owned utilities, as well as guidance from the California Public Utilities Commission (CPUC) Risk-Based Decision-Making Framework (RDF) Proceeding (R.20-07-013).
 - ii. SCE does not differentiate between 8- and 24-hour simulation based on "extreme

¹ Simtable's website is <u>www.simtable.com</u>.

events." The initial purpose of wildfire simulations within both the CPUC HFTD² as well as the RDF proceeding were to provide a *relative* ranking of wildfire consequence for the purpose of prioritizing mitigation deployment. The interpretation of how wildfire consequences should be used has subsequently evolved in the RDF proceeding (*see, e.g.*, RDF Phase III Decision 24-05-064). In accordance with that guidance, SCE continues to explore the use of alternative simulations duration to more accurately reflect "extreme events."

² The REAX-based risk model used to determine CPUC HFTD boundaries, for instance, used a standard *six-hour* wildfire simulation duration.

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Question 06.a-c:

Regarding Fire Climate Zones (FCZ):

a. On page 67 of SCE's 2026-2028 Base WMP, SCE states that "resulting consequences can then be adjusted based on the ratio of FWD for each FBO specific to each FCZ."

i. Clarify how these ratios are used within the consequence score.

ii. Provide an example of how these ratios are used within the consequence score for an FCZ.

b. On page 86 of SCE's 2026-2028 Base WMP, Figure 5-31 shows how the FWD ratio is calculated from the TWD of each FCZ. Clarify how the numbers within each FCZ matrix lead to the FWD ratio.

c. On pages 77 and 84 of SCE's 2026-2028 Base WMP, SCE discusses how burn likelihood has an assumed probability of 1.

i. Explain as to how the new FWD approach and the ratios generated from it address the intent of the burn likelihood.

ii. Describe how the new FWD approach would impact how burn likelihood probability is determined.

Response to Question 06.a-c:

- a. Given that SCE currently uses the maximum consequence at 8 hours across all wildfire simulations at a given location, there is no need to adjust the consequences based on the ratio of FWD for each FBO specific to each FCZ. SCE provided this information in the WMP in response to a pending requirement in the California Public Utilities Commission Risk-Based Decision Making Framework proceeding to produce a full distribution of consequence values to justify the use of tail values (see Figures 5-33 and 5-34 on page 89 of SCE's WMP), as well as stakeholder feedback in previous OEIS Risk Modeling Working Groups to quantity the frequency of return intervals for various fire weather conditions.
- b. The numbers in parentheses in each FBO quadrant depicted in Figure 5-31 for Fire Climate Zone (FCZ), as an example, are a count of historical weather days over SCE's 40-year climatology that could be categorized by those weather conditions. The sum of all weather days in each quadrant equals the Total Weather Days (TWD). The sum of all weather days in quadrants 1D, 2D, 3D, 4D, 2C, 3C, 4C, 3B, 4B, 4A indicate the total Fire Weather Days. The ratio of FWD to TWD indicates the percentage of FWD in relation to the full historical climatology.

- c. See responses to Part c, below:
 - i. Given that SCE only performs wildfire simulations for Fire Weather Days (FWD), which are fuel and wind conditions in which an ignition event can transition into a wildfire, there is no need to perform further adjustments to account for burn likelihood.
 - See mathematical example: Burn Likelihood "1" x Total FWD in FCZ1 as an example "0.8%" = 0.8%; meaning that 0.8% of all historical weather days in FCZ1 in SCE's historical weather data set represent conditions in which an ignition event can transition into a wildfire.

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Question 07.a-c:

Regarding Wildland Urban Interface (WUI) Fuel:

On pages 90 and 92 SCE's 2026-2028 Base WMP, SCE describes a new method and algorithm for handling WUI fuel adjustments. During a previous Risk Model Working Group meeting, SCE discussed the use of a decay function in the WUI fuel layer.

a. Explain on how the decay function was developed and is being used.

b. Provide the technical documentation showing the new methodology and algorithm for WUI fuel adjustments.

Response to Question 07.a-c:

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The Attachment(s) Are Marked Confidential In Accordance With Applicable Law and Regulation. Basis for Confidentiality In Accompanying Confidentiality Declaration. Public Disclosure Restricted.

a. Technosylva has developed a WUI fuel model to augment the Scott and Burgan (2005) fuels commonly used in wildfire simulations. These 12 new fuel models were developed to better characterize wildfire propagation in WUI intermix/interface areas.

As described on page 92 of SCE's 2026-2028 Wildfire Mitigation Plan, these new Technosylva custom WUI fuel models are used in conjunction with building footprints, and other remote sensing technology to overwrite the existing Land Use Land Cover (LULC) in an existing location.

These new WUI models better reflect surface wildfire propagation in those locations by adjusting the Rate of Spread (ROS) based on the encroachment distance from any point on the landscape to the nearest pixel containing burnable forest fuel based on prevailing fire spread conditions.

b. Please see the attached confidential document.

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Question 08.a:

Regarding PSPS Consequences Calculation:

On page 98 of SCE's 2026-2028 Base WMP, within the PSPS consequences calculation, SCE describes how the number of customers on a circuit is multiplied by 3 to get the total affected population.

a. Explain why SCE uses a factor of 3.

Response to Question 08.a:

a. There are two reasons SCE has settled on the ratio of one customer account equates to approximately three people. First, SCE serves a population of approximately 15 million customers across 5 million service accounts. Second, the Federal Energy Regulatory Commission (FERC) has noted a typical ratio of 2-3 customers per customer account in the context of utility operations.¹

¹ See <u>https://www.ferc.gov/sites/default/files/2020-05/04-27-2012-ferc-nerc-report.pdf</u>, p. 1, fn. 1 (explaining that "customers" are not the same as "people" in utility parlance, and estimates of "people" affected by power outages "generally are prepared by increasing the customer numbers by a multiplier, often two or three.").

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Question 09.a-b:

On pages 81 and 146 of SCE's 2026-2028 Base WMP, SCE describes the new building loss factor (BLF) being generated.

- a. Provide an estimated timeline for when the new BLF will be included in risk modeling.
- b. Describe how BLF will be used at each stage.

Response to Question 09.a-b:

- a. SCE plans to incorporate the new Building Loss Factor (BLF) in the 2027 Update to its 2026-2028 Wildfire Mitigation Plan (WMP), which SCE estimates to produce around the time that SCE's 2026 Risk Assessment Mitigation Phase (RAMP) filing will be due in May 2026.
- b. SCE is exploring ways to utilize the BLF to better represent the ratio of Building Damaged (BDam) to Buildings Destroyed (BDes) to more accurately represent building impact consequence metrics. As fire simulations progress across building footprints within the FireSight 8 model, the BLF generates an estimate of the percentage of buildings within a given simulation that likely survive the fire, but may be damaged versus the percentage of buildings that are likely to be completely destroyed. These BLFs are calibrated based on CAL FIRE Damage Inspection (DINs) data.