
**ENHANCED OVERSIGHT AND ENFORCEMENT PROCESS
CORRECTIVE ACTION PLAN**

90-DAY REPORT

PURSUANT TO RESOLUTION M-4852

AUGUST 4, 2021

PUBLIC VERSION



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¹ Attachment K is provided in a separate zip file.

Pacific Gas and Electric Company (PG&E) respectfully submits this August 4, 2021 90-Day Report (August Report) updating its Corrective Action Plan in response to Ordering Paragraph 3 in Resolution M-4852 issued by the California Public Utilities Commission (Commission) on April 16, 2021 (Resolution). In this August Report, we provide updated information where applicable to each of the elements in the Resolution. We are also providing two updated Attachments from the Corrective Action Plan and several new attachments in response to Commission requests.²

EXECUTIVE SUMMARY

We submitted our Corrective Action Plan on May 6, 2021. Since that time, we have responded to discovery and on June 23, 2021, the Commission hosted a workshop to review the Corrective Action Plan. We appreciated during the workshop the active participation of and feedback from President Batjer, Commissioners Shiroma and Rechtschaffen, Executive Director Peterson, Office of Energy Infrastructure Safety (OEIS) Director Thomas Jacobs, OEIS Staff, Safety and Enforcement Division (SED) Staff, and parties. The feedback provided was very helpful for our continued implementation of the Corrective Action Plan.

While we understand that there is a long way to go in achieving the Enhanced Vegetation Management (EVM) goals set forth in our 2021 Wildfire Mitigation Plan (WMP) and 2021 EVM Scope of Work, with the dedicated efforts of our employees and contract partners, we are making substantial progress implementing our 2021 EVM program. Through June 30, 2021, we had completed and verified 595.5 miles of EVM work toward our goal of 1,800 miles.³ More importantly, the vast majority of this work was performed on CPZs in high risk miles so that we can achieve our goal of performing at least 80% of our work in the highest 20% of risk ranked CPZs. As indicated in Table 1 below, more than 95% of the EVM work completed through June 30, 2021 was in the highest 20% of risk ranked CPZs.

² For consistency, we have labeled the updated attachments with the same letter that was used in the Corrective Action Plan so that, for example, Attachment E included with this August Report is an updated version of Attachment E included with the Corrective Action Plan. For new attachments, we have started the letter to follow the attachments in the Corrective Action Plan so the first new attachment starts with Attachment K.

³ The 595.5 miles includes: (1) 512.4 miles on the 104 Circuit Protection Zones (CPZs) in our 2021 EVM Scope of Work which are identified in Attachment E to this August Report; and (2) 83.1 additional miles of EVM work on CPZs outside the 2021 EVM Scope of Work. A breakdown of the risk ranking for the EVM work performed to date is included in Table 1. For ease of reference, in the narrative portions of the August Report we will refer to 596 miles of EVM work completed as of June 30, 2021, rounding 595.5 up to 596.

Table 1: EVM Progress Through June 30, 2021

Risk Tranche	Work Verified (WV) Miles	% of Total WV Miles
<= 10%	551.2	92.5%
> 10 – 20%	17.7	3.0%
> 20 – 30%	7.3	1.2%
> 30 – 40%	6.3	1.1%
> 40 – 50%	8.6	1.5%
> 50%	4.4	0.7%
Total	595.5	100.0%

In addition to the work performed, we are increasing the frequency of communication with our employees and contract partners and are also making sure that this is two-way communications so that information flows from the field to the leadership team and vice versa. This kind of frequent, two-way communication is critical to the success of our EVM program.

The remainder of this August Report provides an update on the fourteen elements in the Corrective Action Plan. We look forward to continuing our work with the Commission, SED, OEIS, and interested parties to continue to refine and improve our EVM program.

CORRECTIVE ACTION PLAN ELEMENTS

- 1. A detailed description of the circumstances that contributed to PG&E’s failure to adequately prioritize the highest risk lines, as described in this Resolution and the WSD’s EVM Audit, in its EVM in 2020**

We do not have any updated information to provide regarding this Element.

- 2. A detailed description of its risk model(s) for determining where to target EVM in the next 90 days, including the specific data sets and vegetation management records PG&E is using as inputs to the risk model, and the data modeling program(s) that make up PG&E’s risk model**

We do not have any updated information to provide regarding this Element.

3. A detailed list of the EVM projects for the calendar year of the reporting date and the EVM plan for the subsequent calendar year, when available

In this August Report, we are providing the following: (a) updated status on the 2021 EVM Scope of Work and progress to date; (b) the addition of the San Joaquin #2 1103circuit_breaker CPZ to the 2021 EVM Scope of Work; (c) information responsive to SED’s and OEIS’ first set of data requests; and (d) the status of the 2022 EVM Scope of Work.

a. Updated Status of the 2021 EVM Scope of Work

We included our 2021 EVM Scope of Work as Attachment E to the Corrective Action Plan and are including as Attachment E to the August Report an updated version of the 2021 EVM Scope of Work. Attachment E includes information concerning the CPZs in our 2021 EVM Scope of Work and the status of work on these CPZs. For each CPZ, we are providing the total EVM miles, the miles completed as of June 30, 2021, miles ready for verification as of June 30, 2021, and information concerning miles impacted by customer refusals, permitting, environmental issues, and other constraints.

There are five issues related to Attachment E (*i.e.*, the 2021 EVM Scope of Work) that we wanted to make sure to highlight for clarity.

First, the 2021 EVM Scope of Work includes five CPZs that were not identified in the 2021 EVM Scope of Work that we submitted on May 6, 2021 with the Corrective Action Plan. Specifically, the updated 2021 EVM Scope of Work includes the San Joaquin #2 1103circuit_breaker CPZ which was erroneously excluded from the earlier 2021 EVM Scope of Work. The addition of this CPZ is discussed in Element 3(b). We have also added four CPZs based on commitments and permitting. In addition to the five CPZs added to the 2021 EVM Scope of Work, we also reprioritized one CPZ based on a commitment. These additions and reprioritization are addressed in Element 6. Table 2 below summarizes these changes:

Table 2: Updated CPZs in 2021 EVM Scope of Work

	2021 EVM Scope of Work (May 6, 2021)	2021 EVM Scope of Work (August 4, 2021)
Total Risk Ranked CPZs	99	100 ⁴
Total Commitment/Permitting CPZs	0	4 ⁵
Total CPZs in 2021 EVM Scope of Work	99	104

⁴ San Joaquin #2 1103circuit breaker added as discussed in Element 3(b).

⁵ Discussed in Element 6.

Second, the total mileage in the 2021 EVM Scope of Work provided on May 6, 2021 for the 99 CPZs identified was 2,422.4 miles. As we review our records and confirm mileage for a CPZ or facilities are added or removed, the mileage associated with a CPZ may vary slightly.

Third, we are providing information in the August Report that is as of June 30, 2021 because we have not yet completed the audit process for EVM data reported after June 30, 2021.

Fourth, the updated 2021 EVM Scope of Work includes EVM work performed on a risk ranked basis. However, as we explained in the Corrective Action Plan, we did perform some carry-over EVM work in early 2021, as well as work based on the earlier March 2021 EVM Scope of Work.⁶ Thus, the 596 miles of EVM work verified and completed through June 30, 2021 is greater than the 513 miles verified and completed in the updated 2021 EVM Scope of Work. In order to provide a complete picture of the EVM work verified and completed to date, we are including as Attachment N a list of the EVM work performed through June 30, 2021 that is outside the 2021 EVM Scope of Work. Table 3 below summarizes the EVM completed and verified miles through June 30, 2021 that are within the 2021 EVM Scope of Work and those miles performed on CPZs outside the 2021 EVM Scope of Work.

Table 3: Miles of EVM Work Completed In and Outside 2021 EVM Scope of Work

CPZ Category	August Report Attachment	Miles of EVM Completed and Verified (Through 6/30/2021)
In 2021 EVM Scope of Work	Attachment E	512.4
Outside 2021 EVM Scope of Work	Attachment N	83.1
Total		595.5

Finally, PG&E’s Internal Audit (IA) department is actively involved in reviewing and validating EVM work in 2021. However, the IA review and validation takes time. To provide clarity on the information that has been audited, we have included in the column headers in Attachments E and N the audit status of the information in the column. Additional data will be audited as a part of our validation process and the final number of miles of EVM work completed by December 31, 2021 will be fully audited.

⁶ Corrective Action Plan, p. 23 and Attachment G describing differences between March 2021 EVM Scope of Work and the 2021 EVM Scope of Work included in our Corrective Action Plan.

b. Addition of San Joaquin #2 1103circuit_breaker CPZ

In developing our 2021 EVM Scope of Work, several sets of data were combined to produce the risk rankings in the EVM tree-weighted prioritization list. The primary datasets included:

1. Risk Pixel data, aggregated by Unified Grid areas;
2. CPZ data, showing the Unified Grid areas that each CPZ intersects;
3. Light Detection and Ranging (LiDAR) data showing the number of LiDAR detected trees on each circuit in each Unified Grid area; and
4. EVM data showing the amount of work identified and performed on each circuit in each Unified Grid area.

When these datasets were merged, some of the circuit names were not consistent. As a result, several San Joaquin circuits were inadvertently assigned a value of zero remaining EVM miles.

As a part of our continuing validation efforts, our operations group reviewed the data in the 2021 EVM Scope of Work and noted that based on their experience in the field and understanding of the risk models, the San Joaquin circuits should have been in the highest risk-ranked CPZs. To understand why the San Joaquin circuits were not included, we re-examined our analysis and focused specifically on the San Joaquin circuits.

The data review showed that the EVM data had a mismatch in the circuit names for four circuits:

SAN JOAQUIN NO2 1103 (in other data sets shows up as SAN JOAQUIN #2 1103)

SAN JOAQUIN NO3 1101 (in other data sets shows up as SAN JOAQUIN #3 1101)

SAN JOAQUIN NO3 1102 (in other data sets shows up as SAN JOAQUIN #3 1102)

SAN JOAQUIN NO3 1103 (in other data sets shows up as SAN JOAQUIN #3 1103)

As a result of this circuit name mismatch, the EVM Remaining Miles and EVM Remaining Tree work were not matched in the tree weighting calculations, causing the CPZs on those circuits to be incorrectly ranked in the EVM tree-weighted prioritization list. This circuit name mismatch only materially impacted the ranking of the two CPZs identified in Table 4 below.

Table 4: San Joaquin CPZ Revised Risk Ranking

Original Risk Ranking	New Risk Ranking	Circuit Name	Circuit Protection Zone	Remaining EVM Miles
2765 (bottom 50%)	40 (top 10%)	San Joaquin NO2 1103	San Joaquin #2 1103circuit_breaker	67.31
2751 (bottom 50%)	104 (top 10%)	San Joaquin NO2 1103	San Joaquin #2 110310320	11.23

Because the 2021 EVM Scope of Work only included the top 99 risk ranked CPZs, we have only added to the San Joaquin #2 1103circuit_breaker CPZ which has a new risk ranking of 40. This has resulted in our 2021 EVM Scope of Work in Attachment E now including the top 100 risk ranked CPZs (*i.e.*, the original 99 risk ranked CPZs plus San Joaquin #2 1103circuit_breaker).⁷

In addition to reviewing the San Joaquin CPZs, we also performed an extent of condition analysis and did not find any other CPZs that should be added to the 2021 EVM Scope of Work as a result of the name mismatch described above. However, this situation highlighted the need for a sensitivity analysis that would provide an assessment of the risk that an inaccurate ranking had occurred because of missing or mismatched data. Thus, we have added a sensitivity analysis to our review process that provides this assessment. At a high level, the sensitivity analysis uses the raw risk scores in the geographic areas and calculates how many trees would need to be observed in that broader general area for the EVM tree-weighted prioritization list to be materially impacted. The analysis can point out areas where there is a potential for data loss from tree information or EVM mileage information. Those areas identified as having potential data loss can then be investigated further and, if there is a data loss, corrections made. Had this sensitivity analysis been performed on the initial output, the San Joaquin circuit areas would have been observed to be an area that would have required further investigation, and the circuit naming mismatch would have been identified and corrected.

c. Responses to SED/OEIS Data Request Set #1, Request No. 20(a)-(d)

In their first set of data requests, SED and OEIS identified in Request No. 20 five items that we should include in our August Report. Four of these items are discussed below. The fifth item is discussed in Element 5.

(1) GIS Data

⁷ We have also added four CPZs to our 2021 EVM Scope of Work based on commitments and permitting, as described below in Element 6, so the total number of CPZs in the 2021 EVM Scope of Work is 104 CPZs.

SED and OEIS requested “GIS data to map out where the EVM work will be performed” including the location in each of the CPZs in the 2021 EVM Scope of Work and the status of work completed. This information is provided in Attachment K, which is a zipped file that contains the underlying data.

**(2) Wildfire Risk Governance Steering Committee (WRGSC)-
Recommended Changes to the Corrective Action Plan and Wildfire
Mitigation Plan**

SED and OEIS also requested information on any changes recommended by the WRGSC to the Corrective Action Plan or our 2021 WMP. Since May 6, 2021, the WRGSC has not approved any changes to the Corrective Action Plan or the 2021 WMP that directly impact the EVM program for 2021. However, the WRGSC has approved changes to the 2021 EVM Scope of Work. On July 9, 2021, the WRGSC approved the addition of San Joaquin #2 1103circuit_breaker CPZ, as described in Element 3(b) above. In addition, the WRGSC approved the addition of four CPZs to the 2021 EVM Scope of Work for commitments/permitting and the reprioritization of one CPZ. These changes are described in Element 6 below.

(3) EVM Work to be Performed in the Next 90 Days

SED and OEIS also requested a spreadsheet that identifies all CPZs that will be worked within the next 90 days beginning August 4, 2021. This information is provided in Attachment L.

We are also including with Attachment L work that was performed between July 1, 2021 and August 6, 2021. This information was requested in SED and OEIS data requests and so, for completeness and ease of reference for the parties, we are providing it in a single Attachment to the August Report.⁸

(4) Information Regarding Personnel and Resources for EVM Work

Finally, SED and OEIS requested specific information regarding resources and personnel for the EVM work to be performed in the next 90 days starting August 4, 2021 including: (1) supervisors per region; (2) contractors per supervisor; (3) foreman per contracting company; (4) field employees per contracting company; and (5) which contracting companies are assigned to specific CPZs. Although most of this information is provided in Attachment M, the number of contractors per supervisor can vary substantially as EVM work in a region is completed and thus PG&E is not able to forecast the number of contractors per supervisor over the next three months. In addition, Attachment M includes confidential third-party staffing information and thus we are providing a public version of Attachment M with the third-party staffing information

⁸ The numbers in Attachment L have not yet been reviewed and validated by PG&E’s IA Department.

redacted and are providing a confidential version of Attachment M to the Commission, SED and OEIS.

d. Status of the 2022 EVM Scope of Work

In our Corrective Action Plan we indicated that we have “a goal to complete the final, WRGSC-approved 2022 EVM Scope of Work in Q4 2021.”⁹ We also indicated that “[i]n December 2021, we plan to revise the approved 2022 EVM Scope of Work to account for work that has been completed in 2021, incorporate all the permit delays and customer refusals, and refresh the CPZ listing to ensure focus on the highest risk miles in 1-n ranking approach.”¹⁰

Given our current focus on and efforts toward making sufficient progress on the 2021 EVM Scope of Work, we have not started the planning yet for the 2022 EVM Scope of Work. However, we fully intend to meet the 2022 EVM Scope of Work timing described in our Corrective Action Plan.

4. A description of how the list in item 3 above ensures PG&E is prioritizing the power lines with highest risk first

As we explained in the Corrective Action Plan, “[t]he 2021 EVM Scope of Work is based on the risk-ranked CPZs from the EVM tree-weighted prioritization list.”¹¹ In Element 3 above, we have provided an updated status of our 2021 EVM work as of June 30, 2021. By the end of the year, based on our 2021 EVM Scope of Work, we plan to have executed EVM work on the highest risk ranked circuits, except where we are unable to do so because of customer refusals, permitting issues, or other external factors that impact our ability to perform EVM work. This approach ensures that PG&E is prioritizing the highest risk CPZs before lower ranked CPZs. We will also have performed work related to commitments/permitting, as discussed in Element 6 below. Finally, a small portion of the 2021 EVM work will have been carried over from 2020. As Table 1 in the Executive Summary indicates, through June 30th almost 95% of our EVM work was performed on the top 20% of risk ranked CPZs.

5. A description of PG&E’s decision-making that leads to the list in item 3: how the list is developed, evaluated, revised in terms of projects that are added to or dropped from the list, finalized, and communicated to EVM work crews, and PG&E’s internal documentation of the decision-making process

In Element 5, we provide updated information on: (a) the development and revision of the 2021 EVM Scope of Work; (b) communication with EVM work crews; (c) internal documentation of

⁹ Corrective Action Plan, p. 18.

¹⁰ Corrective Action Plan, p. 18.

¹¹ Corrective Action Plan, p. 18.

decision-making; and (d) our action plan to address issues identified in our May 21, 2021 Internal Audit Report.

a. Development and Revision of 2021 EVM Scope of Work

In our Corrective Action Plan, we described how the 2021 EVM Scope of Work was developed.¹² We also described the process for updating the 2021 EVM Scope of Work.¹³ There are no updates to how the 2021 EVM Scope of Work was developed or the process for revising it.

However, as described in Elements 3 and 6, there have been revisions to the 2021 EVM Scope of Work since we submitted the Corrective Action Plan on May 6, 2021. These changes include the addition of the San Joaquin #2 1103circuit_breaker CPZ (described above in Element 3(b)), the addition of four CPZs for commitments/permitting, and the reprioritization of one CPZ (described below in Element 6).

b. Communication with EVM Employees and Contractors

We discussed our communications with EVM crews regarding the 2021 EVM Scope of Work in the Corrective Action Plan and at the June 23, 2021 workshop.¹⁴ In this section we are providing updated and more detailed information regarding EVM communications.

As an initial matter, it is important to understand that our communications are not one way (*i.e.*, from EVM management to the crews). Our crews and contractors performing EVM pre-inspections, work, and verification learn critical information and lessons in the course of their work that is essential to the success of our EVM program. A regular cadence of open and transparent meetings take place so that information can flow from the field to management and from management to the field.

For internal communications, EVM goals and targets are communicated to teams and individual staff members through daily communication that includes updates regarding EVM work progress and targets. Daily Operating Reviews (DOR) are held daily at multiple levels within our organization. We have a DOR among our officer and leadership team and a DOR at the region level with all of our regions represented and attended by the EVM leadership team. At the region-level DOR, our field teams and leadership discuss progress with the 2021 EVM Scope of Work. The purpose of the DORs is to discuss challenges and counter measures to keep the plan on track. On July 13, 2021, we held our first monthly Vegetation Management (VM) All Hands meeting to review the 2021 EVM Scope of Work, progress, constraints and changes.

¹² Corrective Action Plan, pp. 12-15.

¹³ Corrective Action Plan, pp. 15-17.

¹⁴ Corrective Action Plan, pp. 23-24.

After every quarter, an All-Hands meeting will discuss a summary of overall progress on the 2021 EVM Scope of Work in the past quarter and discuss goals for the next quarter.

For communications with our EVM contractors, we have dedicated PG&E EVM personnel who are responsible and accountable for communicating the work to be released. This team manages the scope through completion to ensure it aligns with the 2021 EVM Scope of Work. Based on the direction given by our personnel, contractors are responsible for managing their workforce to complete the work scope per the schedule.

c. Internal Documentation of Decision Making

The Vegetation Management Change Control Board (VM Board) is scheduled to meet twice a month if needed to review the status of EVM work, risk, financial information, and commitments, as well as to discuss any potential changes to the 2021 EVM Scope of Work. If the VM Board approves a recommendation to modify the 2021 EVM Scope of Work, that recommendation is then presented to the WRGSC. The VM Board communications are documented through e-mails, and decisions are documented in the EVM Change Control Form which is discussed more below.

The WRGSC meets weekly, and more frequently if needed. Meeting outcomes are documented following the meeting and final materials that include decisions, action items and the meeting presentations (with any requested edits incorporated) are sent to attendees following the meeting.¹⁵

The documentation process for changes to the 2021 EVM Scope of Work is described in the EVM Change Control Process and Change Control Communication below.

(1) EVM Change Control Process

The following steps outline the process for reviewing and approving changes to the 2021 EVM Scope of Work, and the process for documenting these changes, to ensure transparency and alignment across the organization. These steps are reflected in Figure 1, below which depicts graphically the change control process.

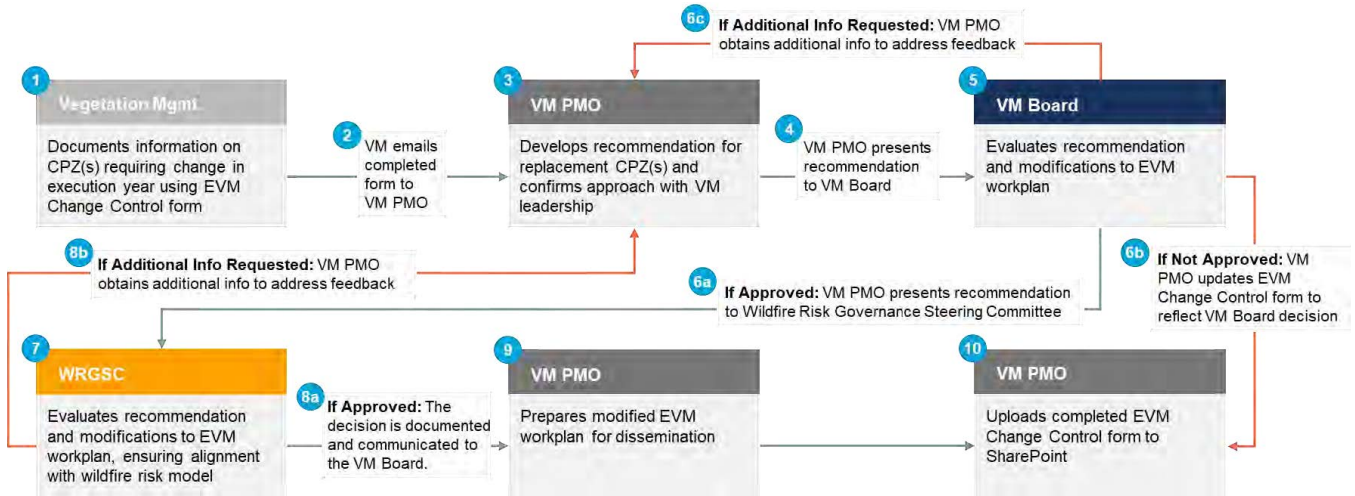
1. Stakeholder(s) within the Vegetation Management organization identify CPZ(s) and any associated mileage for inclusion or exclusion from the EVM workplan for a given execution year based on the aforementioned criteria. The stakeholder(s) fills out the required information in the EVM Change Control form.

¹⁵ For additional information regarding the responsibilities of the VM Board and WRGSC and communication between the VM Board and WRGSC, *see* Corrective Action Plan, pp. 16-17.

2. The Vegetation Management stakeholder(s) emails the completed form to the VM PMO team to initiate the EVM workplan change request.
3. The VM PMO team works to analyze the information provided in the EVM Change Control form and develops a recommendation for CPZ(s) to replace the excluded CPZ(s) or CPZ(s) to withdraw from the current EVM workplan to accommodate newly included CPZ(s). The VM PMO team will work in coordination with the Vegetation Management stakeholder(s) to confirm alignment on the recommendation.
4. VM PMO presents their recommendation and modified EVM workplan to the VM Board.
5. The VM Board evaluates the proposed recommendation and modified EVM workplan.
6. The VM Board will approve or reject the proposed recommendation:
 - a. If approved, the decision is documented and communicated to the VM Board.
 - b. If the VM Board denies the proposed recommendation, the VM PMO team will update the EVM Change Control form to reflect the VM Board's decision.
 - c. If the VM Board requests additional information, the change request will be remanded to the VM PMO team to address the feedback and/or revise the recommendation.
7. The WRGSC evaluates the proposed recommendation and modified EVM workplan.
8. The WRGSC will approve or reject the proposed recommendation:
 - a. If approved, the decision is documented and communicated to the VM Board.
 - b. The WRGSC may deny the proposed recommendation or request additional information. If additional information is requested, it is returned to the VM PMO team to address the feedback and/or revise the recommendation (Step 3).

9. VM PMO prepares the modified EVM workplan for dissemination to the appropriate Vegetation Management stakeholder(s).
10. VM PMO uploads the completed EVM Change Control form to SharePoint.

Figure 1: EVM Change Control Process



(2) EVM Change Control Communications

For recordkeeping purposes, communications during the EVM Change Control process are documented via email and/or signed attestations on the EVM Change Control form to reflect decisions or acknowledgements made during in-person meetings. For example, VM PMO may discuss EVM workplan modifications during weekly, biweekly, or monthly meetings held with PG&E local operations and contractor leadership, accounting team, and operations. Any new change requests must be recorded and submitted on an EVM Change Control form prior to initiating the Change Control process, and signed acknowledgement of receipt for a modified EVM workplan must also be documented on the appropriate EVM Change Control form.

(d) Response to Internal Audit Report

In their first set of data requests, Request 20(e), SED and OEIS requested the action plan for issues identified in an IA Report from May 21, 2021. IA evaluated processes and controls over development of the Tree-Weighted Prioritization List being used to inform the 2021 EVM Scope of Work. All of the issues identified in the IA Report were resolved prior to the report being issued with the exception of one issue related to a known limitation concerning the aggregation of risk scores for CPZ ranking. The Action Plan to address this remaining item is included as Attachment O.

6. An explanation of the rationale for any planned EVM work that does not target the power lines with highest risk first

Although the 2021 EVM Scope of Work is based on performing work on the highest risk-ranked CPZs, as we explained in our Corrective Action Plan there is some EVM work that it is reasonable and prudent to perform even if it is not the highest risk-ranked work.¹⁶ Between the submission of the Corrective Action Plan on May 6, 2021 and this August Report, there have been four CPZs related to commitments/permits added to the 2021 EVM Scope of Work which are identified in Table 5 below:

Table 5: Commitments/Permits Added to 2021 EVM Scope of Work

Project	Region	Risk Tranche	Description of Commitment and Basis for Commitment
San Luis Obispo 1107 San Luis Obispo 1107v60	Central Coast	> 20%	Commitment was made by the local Vegetation Program Manager and engaged by our Local Public Affairs to internal and external parties of the <i>Diablo Canyon Power Plant</i> and <i>Avila Valley Advisory Council (AVAC)</i> . There is a narrow ingress/egress, little to no cell service in this territory, and recently a small (non-equipment failure) fire in this area.
Silverado 2104 Silverado 210478268	Bay Area	Top 10%	Commitment was made by PG&E Regional Manager and Supervisor Program Manager to CalFire & Las Posadas State Forest CalFire, Las Posadas State Forest, Las Posadas Community College, Angwin Community. This is the one of the few areas in the Napa area that have not been affected by a recent wildfire.
Bell 1107 Bell 110750172	Sierra	Top 10%	Permit expires 10/2/2022. Commitment made by Vegetation Program Manager to customers.
Yosemite Division – USFS Wishon 1101circuit_breaker	Central Valley	Top 20%	Environmental permit with the U.S. Forest Service expires 10/27/2021

¹⁶ Corrective Action Plan, pp. 18-19.

In addition, one CPZ that was in the 2021 EVM Scope of Work, but not a part of the initial 1,800 miles, has been re-prioritized so that it is part of the 1,800 mile plan as a result of commitments related to that CPZ. As we explained in the Corrective Action Plan, our 2021 EVM Scope of Work includes a plan to perform work on 1,800 miles of CPZs as well as an additional 600 miles that can be substituted for any miles in the highest risk 1,800 miles if we are unable to perform work on any of these 1,800 miles, subject to WRGSC review and approval.¹⁷ The Girvan 1101 CPZ was included in the 600 additional miles identified in our 2021 EVM Scope of Work submitted on May 6. However, as a result of a commitment related to this CPZ, the WRGSC approved including the Girvan 1101 CPZ in the 1,800 miles for the 2021 EVM Scope of Work. Adding Girvan 1101 will not replace any other CPZ in the 1,800 miles of planned work but will instead be in addition to the CPZs identified as the initial 1,800 miles. Information regarding the Girvan 1101 CPZ is provided in Table 6 below.

Table 6: CPZ Reprioritized in 2021 EVM Scope of Work Based on Commitments

Project	Region	Risk Tranche	Description of Commitment and Basis for Commitment
Girvan 1101 Girvan 11011330	North Valley	Top 10%	Commitment was made to Judge Alsup and a Public Safety Specialist by PG&E and the Fire Marshall and a part of the extent of condition related to the Zogg Fire.

7. Any changes to the 2021 Wildfire Distribution Risk Model, the Wildfire Consequence Model, or the Vegetation Risk Model occurring over the prior 90 days or planned for the subsequent 90 days

We did not make in the past 90 days and do not plan on making in the next 90 days any changes to the 2021 Wildfire Distribution Risk Model, Wildfire Consequence Model, or Vegetation Risk Model for purposes of the 2021 EVM Scope of Work or informing EVM work in 2021.

8. A detailed description of the circumstances that contributed to PG&E management’s inconsistent reporting on the details of its risk modeling and risk ranking lists

We do not have any updated information to provide regarding this Element.

¹⁷ Corrective Action Plan, p. 14.

9. **Verification by a senior officer of PG&E that the risk model, including underlying data sets and vegetation management records, it is using to prioritize EVM is as set forth in its report**

We are providing an updated version of Attachment J, which was the verification included in the Corrective Action Plan, with this August Report.

10. **Verification by a senior officer of PG&E that it will target a substantial majority of EVM to the highest risk circuit protection zones first, as shown by its risk model or other ranking, in the next 90 days for EVM**

We are providing an updated version of Attachment J, which was the verification included in the Corrective Action Plan, with this August Report.

11. **Verification by a senior officer of PG&E that it targeted a substantial majority of EVM to the highest risk circuit protection zones first, as shown by its risk model or other ranking, in the prior 90 days**

We are providing an updated version of Attachment J, which was the verification included in the Corrective Action Plan, with this August Report.

12. **Verification by a senior officer of PG&E that the company has communicated information and internal decisions in items 3, 4 and 9 above to personnel of PG&E's EVM programs and that such personnel is aware of where to target EVM in the subsequent 90 days**

We are providing an updated version of Attachment J, which was the verification included in the Corrective Action Plan, with this August Report.

13. **A proposed timeline for ending the required reporting, with a detailed explanation of why the proposal ensures PG&E is in compliance with the requirement that it prioritize high risk circuits in its EVM work. The timeline shall include milestone goals for June 1, 2021, September 1, 2021, and December 31, 2021. These goals shall include a targeted percentage of high-risk power line circuits to be completed by those dates.**

In the Corrective Action Plan, our goal was to complete 210 high risk miles¹⁸ by June 1, 2021. We achieved this goal by completing 363 high risk miles¹⁹ of completed and verified EVM work by June 1, 2021. Table 7 below provides an update on our 2021 EVM goals.

Table 7: Update on Goals for EVM Work in 2021

Date	Corrective Action Plan Goal for High Risk Miles	Corrective Action Plan Goal for Percentage Completion²⁰	Actual High Risk Miles	Actual Percentage Completion
June 1, 2021	210	11%	363	20%
September 1, 2021	850	47%	-	-
December 31, 2021	1,800	100%	-	-

We are not proposing any changes to our September 1 and December 31, 2021 goals, nor are we proposing any changes to our proposal that the reporting related to EVM performance end in February 2022.²¹

14. A description of how the Corrective Action Plan proposed in response to this Resolution will complement and not undermine PG&E’s compliance activities ordered in the D.20-05-019

We do not have any updated information to provide regarding this Element.

¹⁸ High risk miles are defined as the top 20% of CPZs based on risk ranking from the EVM tree-weighted prioritization list and fire impacted miles.

¹⁹ For purposes of this Corrective Action Plan, high risk miles are defined as the top 20% of CPZs based on risk ranking from the EVM tree-weighted prioritization list and fire impacted miles (*i.e.*, locations where wildfire will burn through an area leaving trees that need to be trimmed or removed). The 363 high risk miles are based on a snapshot of data from July 1, 2021.

²⁰ Percentage completion is based on a goal of approximately 1,800 miles of EVM work performed by the end of 2021.

²¹ Corrective Action Plan, pp. 24-25.

CONCLUSION

This August Update provides an overview of events which have occurred in the 90 days since we submitted the Corrective Action Plan. We appreciate the opportunity to provide these updated materials to the Commission, WSD, SED, and stakeholders and look forward to receiving continued feedback on our approach to focusing the EVM program on the highest risk CPZs in our service territory.

PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT E
UPDATED 2021 ENHANCED VEGETATION MANAGEMENT
SCOPE OF WORK

Circuit Name	Circuit Protection Zone	Remaining EVM Miles	Forecasted Tree Work	Tree Weighted Risk Score	Tree Weighted Rank	Plan (Mile Cutoff)	Miles Complete and Verified as of 6/30/21 (Audited)	Miles Ready for Work Verification as of 6/30/21 (Unaudited)	Miles Constrained Customer Refusals (Unaudited)	Miles Constrained Permitting Holds (Unaudited)	Miles Constrained Environmental Holds (Unaudited)	Miles Constrained Other (Unaudited)	Remaining Miles (Unaudited)	Risk Miles by Percentage (Top 20%)
SHINGLE SPRINGS 2109	SHINGLE SPRINGS 21099372	18.60	589.09	47.13	81	2400 MILE	0.84	0.00	0.00	0.00	0.03	0.00	17.74	1. <= 10%
COTTONWOOD 1101	COTTONWOOD 11011610	36.98	1026.81	47.08	82	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	36.98	1. <= 10%
DESCHUTES 1104	DESCHUTES 1104circuit_breaker	12.88	274.71	47.06	83	2400 MILE	9.84	0.00	0.43	0.00	0.29	0.00	2.32	1. <= 10%
NARROWS 2101	NARROWS 21011202	45.52	1236.96	46.92	84	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	45.52	1. <= 10%
GARBERVILLE 1102	GARBERVILLE 11024744	17.05	1491.09	46.69	85	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	17.05	1. <= 10%
ZACA 1102	ZACA 1102Y54	31.63	421.35	46.13	86	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	31.63	1. <= 10%
CALISTOGA 1101	CALISTOGA 1101734	6.58	851.52	45.87	87	2400 MILE	0.01	0.00	0.76	0.00	0.75	0.12	4.94	1. <= 10%
DESCHUTES 1101	DESCHUTES 11011380	17.28	492.84	45.46	88	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	17.28	1. <= 10%
MARIPOSA 2102	MARIPOSA 21029590	35.79	1638.67	45.03	89	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	35.79	1. <= 10%
FRUITLAND 1142	FRUITLAND 114263170	11.76	2045.73	44.77	90	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	11.76	1. <= 10%
WISE 1102	WISE 11022054	13.39	354.51	44.54	91	2400 MILE	0.32	0.00	0.00	0.00	0.00	0.00	13.07	1. <= 10%
SHINGLE SPRINGS 2110	SHINGLE SPRINGS 21107742	45.20	2517.81	43.79	92	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	45.20	1. <= 10%
SAND CREEK 1103	SAND CREEK 110345190	36.37	653.37	43.65	93	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	36.37	1. <= 10%
DIAMOND SPRINGS 1105	DIAMOND SPRINGS 110519910	19.31	547.20	43.15	94	2400 MILE	0.48	0.00	0.00	0.00	0.00	0.00	18.83	1. <= 10%
ELK CREEK 1101	ELK CREEK 11012106	13.25	418.97	42.98	95	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	13.25	1. <= 10%
DOBBINS 1101	DOBBINS 11011264	35.61	3459.03	42.85	96	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	35.61	1. <= 10%
GIRVAN 1101	GIRVAN 11011330	30.57	1827.81	42.57	97	1800 MILE	0.00	0.00	0.00	0.00	0.00	0.00	30.57	1. <= 10%
VOLTA 1101	VOLTA 110180454	32.11	2042.39	42.57	98	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	32.11	1. <= 10%
TIVY VALLEY 1107	TIVY VALLEY 1107R1817	14.59	813.34	42.38	99	2400 MILE	9.16	0.30	0.58	0.00	0.21	0.00	4.21	1. <= 10%
AUBERRY 1102	AUBERRY 1102R2850	26.34	405.00	42.15	100	2400 MILE	0.00	0.00	0.00	0.00	0.15	0.00	26.19	1. <= 10%
BELL 1107	BELL 110750172	5.45	377.12	41.29	103	2400 MILE	3.77	0.36	0.55	0.00	0.00	0.00	0.78	1. <= 10%
SILVERADO 2104	SILVERADO 210478268	6.20	692.14	18.92	243	2400 MILE	1.11	0.13	0.93	0.00	0.16	0.00	3.88	1. <= 10%
SAN LUIS OBISPO 1107	SAN LUIS OBISPO 1107V60	15.52	654.60	4.49	650	2400 MILE	3.84	0.21	0.11	0.00	1.04	0.25	10.07	3. >20 - 30%
WISHON 1101	WISHON 1101circuit_breaker	5.31	317.00	2.47	827	2400 MILE	0.00	0.00	0.00	0.00	0.00	0.00	5.31	3. >20 - 30%
Total		2522.19	173408.40	7215.03			512.39	22.17	59.18	2.63	85.21	7.97	1832.10	

Note: "As part of EVM's process, a circuit segment categorized as completed (work verified), may revert to an in-progress status if a new vegetation point (tree) is associated with a circuit segment after the work verification was completed. If this were to occur, miles associated with this circuit segment will not be recognized as complete until work verification has been re-performed. This condition could cause progress which was recognized in one quarter to not be recognized in a subsequent quarter."

PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT J
UPDATED VERIFICATION OF SUMEET SINGH

Verification of Sumeet Singh

1. I, Sumeet Singh, am submitting this verification as a part of Pacific Gas and Electric Company's (PG&E) 90-Day Report submitted on August 4, 2021 (August Report). Below, I address the Elements of the August Report that require an officer verification.

2. I am currently employed by PG&E as a Senior Vice President and the Chief Risk Officer. I make this verification based on my own personal knowledge and/or based on information provided to me by other PG&E employees who have responsibility over the specific areas identified or responsibility for verifying and validating information. Where I am relying on information provided by other PG&E employees, I state that my understanding is based on information and belief.

3. Element 9 requires a "verification by a senior officer of PG&E that the risk model, including underlying data sets and vegetation management records, it is using to prioritize [Enhanced Vegetation Management (EVM)] is as set forth in its report." I provided a verification for Element 9 with the Corrective Action Plan submitted on May 6, 2021. As indicated in Element 7 of the August Report, "[w]e did not make in the past 90 days and do not plan on making in the next 90 days any changes to the 2021 Wildfire Distribution Risk Model, Wildfire Consequence Model, or Vegetation Risk Model for purposes of the 2021 EVM Scope of Work or informing EVM work in 2021."

4. Element 10 requires a "verification by a senior officer of PG&E that it will target a substantial majority of EVM to the highest risk circuit protection zones first, as shown by its risk model or other ranking, in the next 90 days for EVM." In the next 90 days, PG&E will use the 2021 EVM Scope of Work described and included in the August Report to perform EVM work. As explained in Elements 2-4 of the Corrective Action Plan, the 2021 EVM Scope of Work utilizes a risk-ranked list of Circuit Protection Zones (CPZs) to prioritize the highest risk CPZs and perform work on these CPZs using the 1-n risk ranking approach described in Element 3(a). The 2021 EVM Scope of Work can be modified by the Wildfire Risk Governance Steering Committee (WRGSC) to account for external circumstances such as delays in the permitting process, customer refusals, and changes in work resulting from wildfires that have required us to modify our workplans. In addition, EVM work will also be performed in 2021 related to commitments and permitting, as described in Element 6 of the August Report.

5. Element 11 requires a "verification by a senior officer of PG&E that it targeted a substantial majority of EVM to the highest risk circuit protection zones first, as shown by its risk model or other ranking, in the prior 90 days." In the prior 90 days, PG&E targeted EVM work based on the 2021 EVM Scope of Work. The EVM work that has been performed through June 30, 2021 is reflected in Attachment E to the August Report. The information in Attachment E was provided by our Vegetation Management team. In addition, some of the information in Attachment E has been reviewed by our

Internal Audit organization. The information that Internal Audit has reviewed is designated as “audited.”

6. Element 12 requires a “verification by a senior officer of PG&E that the company has communicated information and internal decisions in items 3, 4 and 9 above to personnel of PG&E’s EVM programs and that such personnel is aware of where to target EVM in the subsequent 90 days.” On information and belief, Element 5(b) in the August Report describes the communications that PG&E has had with EVM personnel and contractors regarding EVM work in 2021, as well as plans for ongoing communications.

I verify that the statements above are true and correct to the best of my knowledge or, where indicated, on information and belief. This verification was executed in San Ramon, California on August 4, 2021.



Sumeet Singh
Pacific Gas and Electric Company
Senior Vice President and Chief Risk Officer

PACIFIC GAS AND ELECTRIC COMPANY

ATTACHMENT K

GIS DATA FOR 2021 ENHANCED VEGETATION MANAGEMENT

SCOPE OF WORK (PROVIDED IN A SEPARATE ZIP FILE)

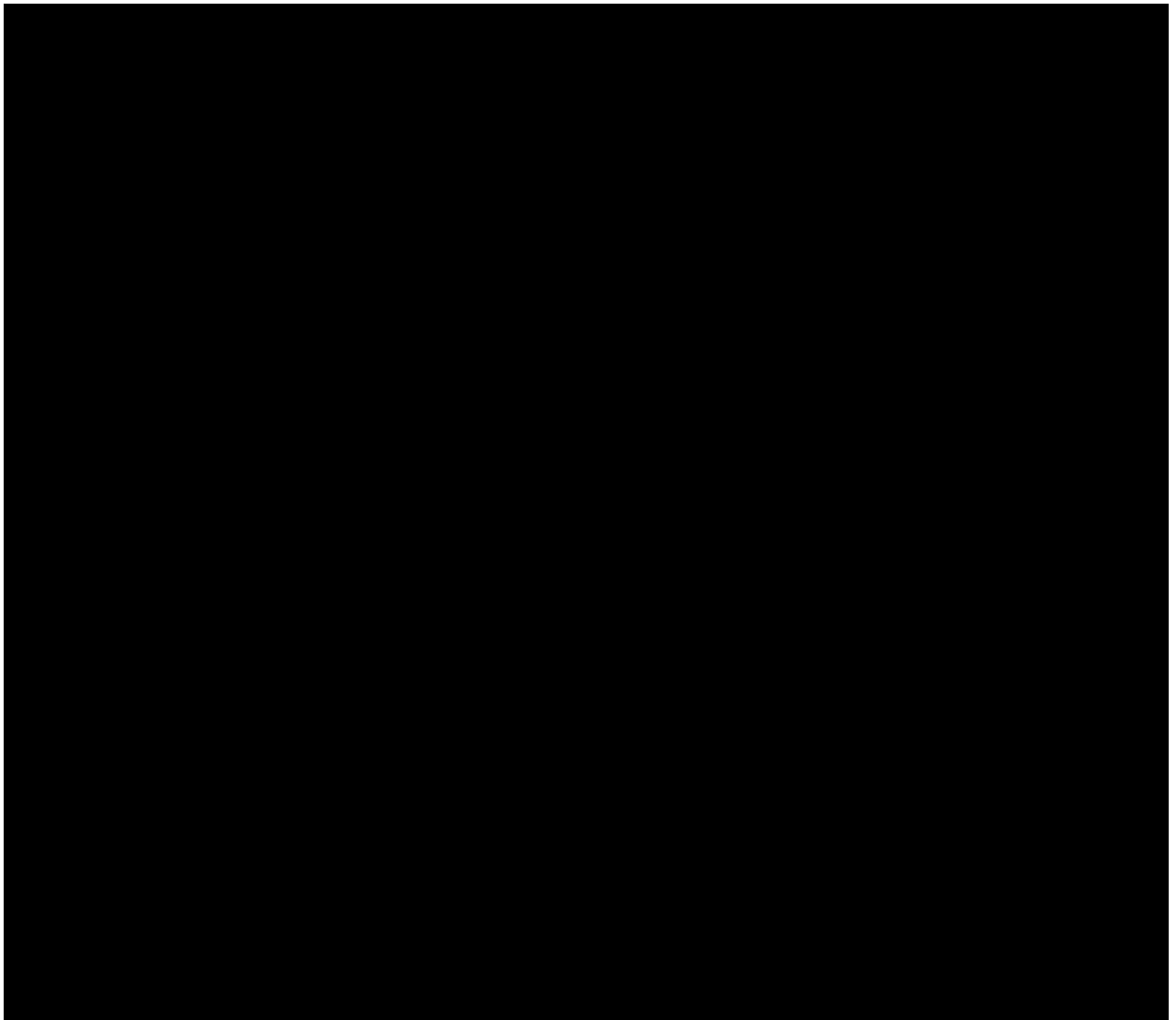
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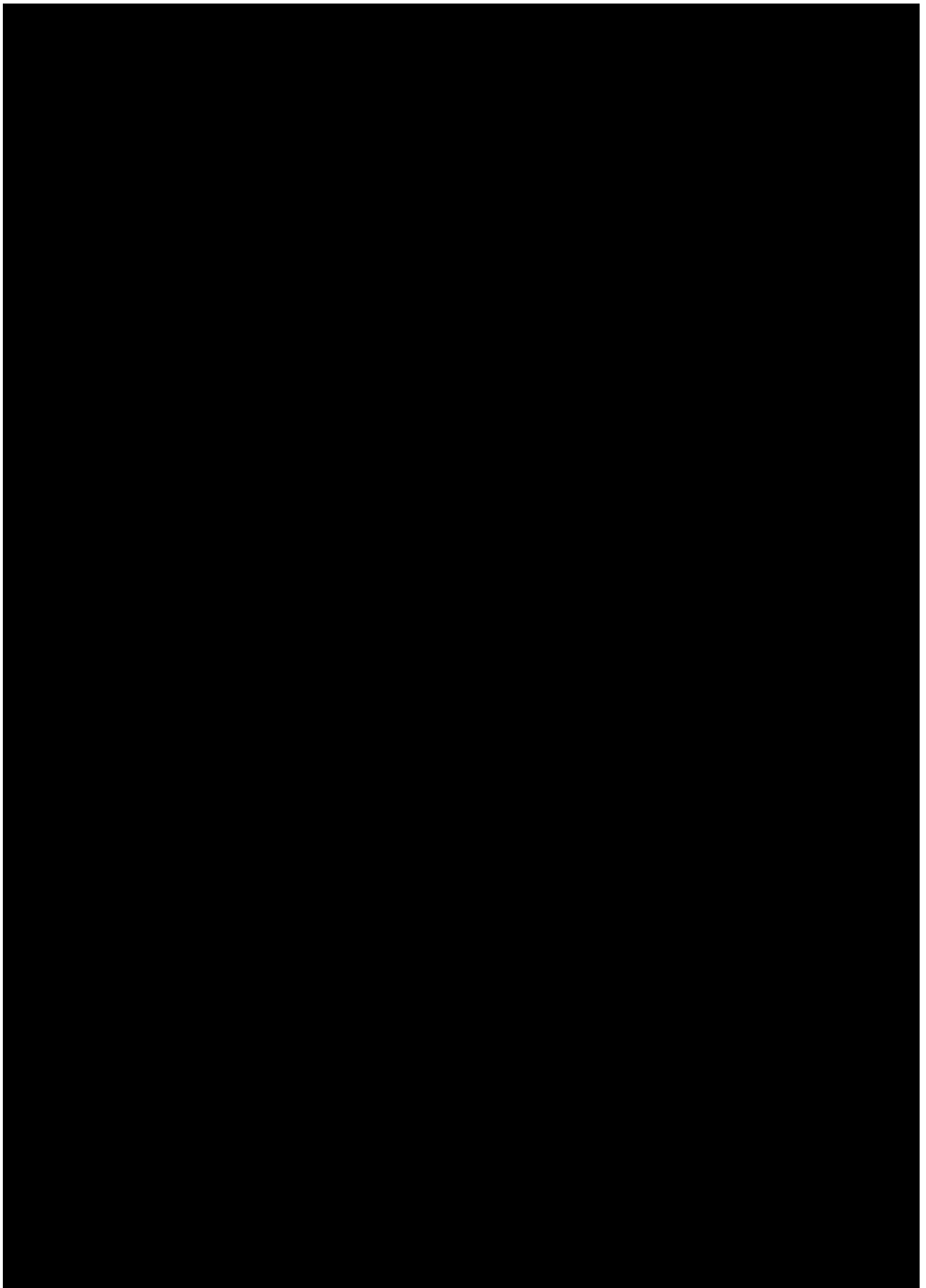
PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT L
ENHANCED VEGETATION MANAGEMENT WORK TO BE
PERFORMED IN NEXT 90 DAYS

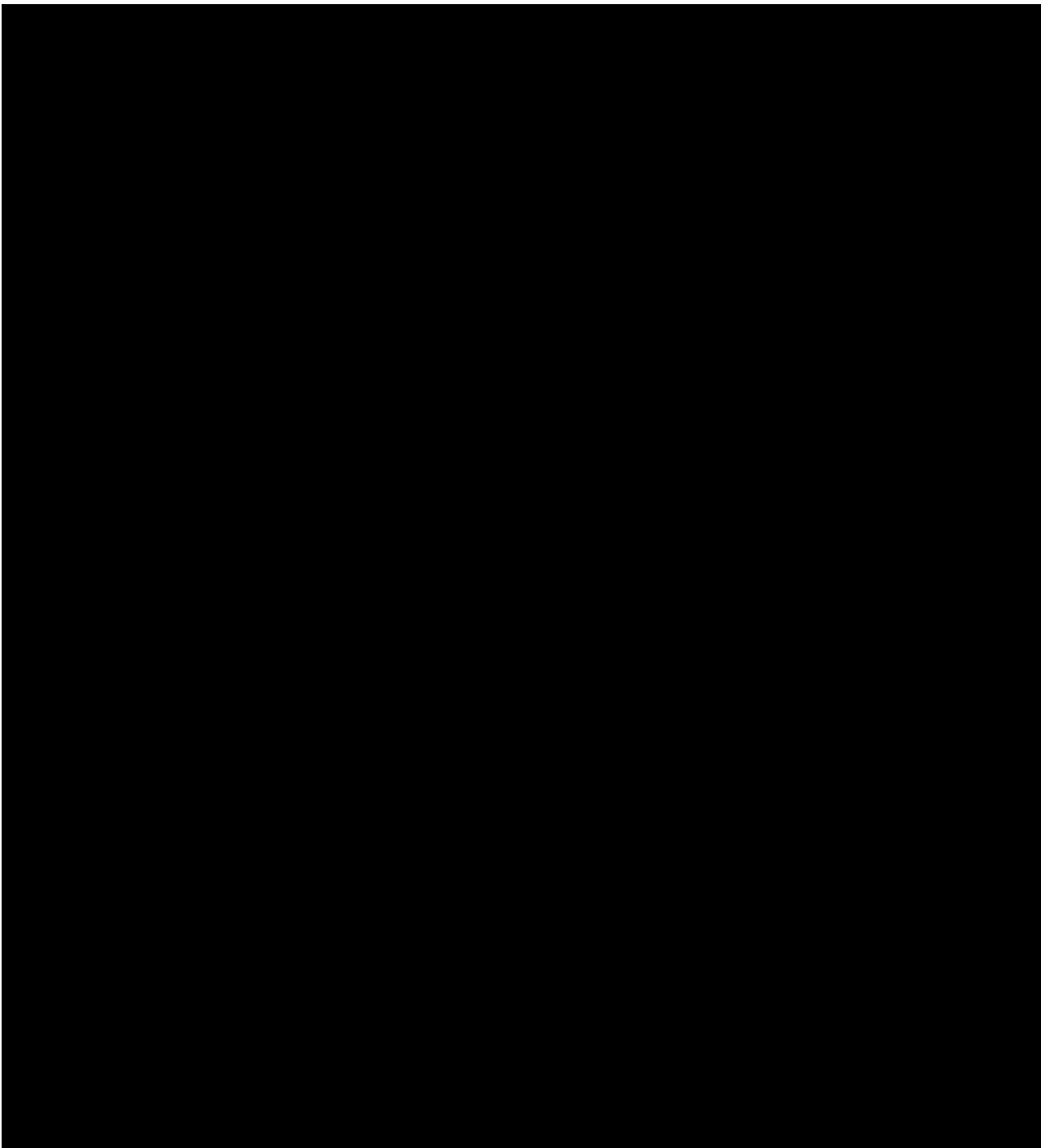
PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT M
RESOURCES AND PERSONNEL FOR NEXT 90 DAYS
(UNAUDITED)
(PUBLIC)

Total numbers of employees may change on any given day pending where resources are needed (ie. Another EVM Project, other VM Program, or unprecedented events such as wildfire emergency work and/or restoration, etc.)

PG&E Internal Employees - Assigned to EVM Program			
Region	Regional Managers	Supervising Vegetation Program Manager (SVPM)	Vegetation Program Manager (VPM)
Bay Area	1	3	3
Central Coast	1	1	1
Central Valley	1	2	3
North Coast	1	2	3
North Valley	1	2	2
Sierra	1	2	3
	6	12	15







PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT N
2021 EVM WORK PERFORMED OUTSIDE THE 2021 EVM
SCOPE OF WORK

Circuit Name	Circuit Protection Zone	Tree Weighted Risk Score	Tree Weighted Rank	Plan (Mile Cutoff)	Miles Complete and Verified as of 6/30/21 (Audited)	Miles Ready for Work Verification as of 6/30/21 (Unaudited)	Risk Miles by Percentage (Top 20%)
SAN JOAQUIN NO2 1103	SAN JOAQUIN #2 110310320	40.84	104	n/a	3.17	2.54	1. <= 10%
KONOCTI 1102	KONOCTI 1102circuit_breaker	40.10	108	n/a	0.04	0.00	1. <= 10%
WILLITS 1103	WILLITS 1103826	39.92	110	n/a	0.12	0.03	1. <= 10%
WILLITS 1102	WILLITS 1102circuit_breaker	39.36	114	n/a	1.26	0.00	1. <= 10%
WOODSIDE 1101	WOODSIDE 11018884	38.87	119	n/a	0.00	0.00	1. <= 10%
WISE 1102	WISE 1102307494	38.74	121	n/a	0.51	0.02	1. <= 10%
CALISTOGA 1101	CALISTOGA 1101736	38.05	125	n/a	0.42	0.04	1. <= 10%
SHINGLE SPRINGS 2109	SHINGLE SPRINGS 210912392	37.83	127	n/a	8.26	0.46	1. <= 10%
WYANDOTTE 1109	WYANDOTTE 110913052	34.00	137	n/a	2.03	0.08	1. <= 10%
DESCHUTES 1104	DESCHUTES 11041582	32.37	145	n/a	0.09	0.04	1. <= 10%
WISE 1102	WISE 1102697216	27.78	172	n/a	0.16	0.18	1. <= 10%
BROWNS VALLEY 1101	BROWNS VALLEY 11011268	27.43	175	n/a	2.67	0.00	1. <= 10%
TIVY VALLEY 1107	TIVY VALLEY 1107584840	26.72	180	n/a	11.96	1.63	1. <= 10%
CALISTOGA 1101	CALISTOGA 110189150	26.24	184	n/a	0.05	0.00	1. <= 10%
CEDAR CREEK 1101	CEDAR CREEK 1101circuit_breaker	24.23	199	n/a	0.32	0.05	1. <= 10%
LINCOLN 1104	LINCOLN 110451756	23.61	202	n/a	9.02	0.07	1. <= 10%
MARIPOSA 2101	MARIPOSA 21019400	22.86	211	n/a	0.13	0.00	1. <= 10%
MOUNTAIN QUARRIES 2101	MOUNTAIN QUARRIES 21011102	21.93	219	n/a	0.12	0.00	1. <= 10%
SHINGLE SPRINGS 2109	SHINGLE SPRINGS 210961892	20.18	232	n/a	0.12	0.00	1. <= 10%
AUBERRY 1101	AUBERRY 1101R314	19.03	241	n/a	0.16	0.00	1. <= 10%
BELL 1108	BELL 11085703	17.38	261	n/a	0.00	0.04	1. <= 10%
GRASS VALLEY 1103	GRASS VALLEY 11032110	17.37	263	n/a	0.67	0.22	1. <= 10%
MIDDLETOWN 1101	MIDDLETOWN 1101548	17.25	265	n/a	0.03	0.00	1. <= 10%
SILVERADO 2104	SILVERADO 210437632	16.23	281	n/a	0.05	0.00	1. <= 10%
KONOCTI 1102	KONOCTI 110275382	15.86	283	n/a	0.08	0.00	1. <= 10%
CALISTOGA 1101	CALISTOGA 110143924	15.22	288	n/a	0.00	0.00	1. <= 10%
MOUNTAIN QUARRIES 2101	MOUNTAIN QUARRIES 21016953	15.16	289	n/a	0.44	0.00	1. <= 10%
KONOCTI 1102	KONOCTI 110264664	14.64	296	n/a	0.12	0.00	1. <= 10%
AUBERRY 1101	AUBERRY 1101R2579	13.29	321	n/a	0.60	0.11	1. <= 10%
MORGAN HILL 2105	MORGAN HILL 2105XR176	12.32	338	n/a	0.12	0.00	2. >10 - 20%
TIVY VALLEY 1107	TIVY VALLEY 1107869946	12.21	341	n/a	10.40	0.36	2. >10 - 20%
WYANDOTTE 1109	WYANDOTTE 11091520	11.84	349	n/a	0.00	0.00	2. >10 - 20%
SHINGLE SPRINGS 2109	SHINGLE SPRINGS 21092679	11.50	359	n/a	0.29	0.00	2. >10 - 20%
WYANDOTTE 1109	WYANDOTTE 11095607	11.37	361	n/a	0.01	0.00	2. >10 - 20%
OAKHURST 1103	OAKHURST 110310570	11.13	369	n/a	0.00	0.00	2. >10 - 20%
OAKHURST 1103	OAKHURST 11035480	10.70	383	n/a	0.38	0.00	2. >10 - 20%
WYANDOTTE 1107	WYANDOTTE 11071026	10.23	400	n/a	0.00	0.00	2. >10 - 20%
OREGON TRAIL 1103	OREGON TRAIL 110335002	10.12	402	n/a	0.37	0.00	2. >10 - 20%
FORT SEWARD 1121	FORT SEWARD 1121circuit_breaker	9.70	413	n/a	0.29	0.00	2. >10 - 20%
BANGOR 1101	BANGOR 11011804	9.09	429	n/a	0.06	0.00	2. >10 - 20%
MIDDLETOWN 1101	MIDDLETOWN 1101circuit_breaker	9.09	430	n/a	0.73	0.00	2. >10 - 20%
MIDDLETOWN 1101	MIDDLETOWN 110148212	8.95	436	n/a	0.59	0.00	2. >10 - 20%
WISE 1102	WISE 11022234	8.77	446	n/a	0.00	0.00	2. >10 - 20%
MORGAN HILL 2105	MORGAN HILL 2105XR564	8.40	465	n/a	2.04	0.32	2. >10 - 20%
SILVERADO 2104	SILVERADO 2104806	8.31	469	n/a	0.00	0.00	2. >10 - 20%
WILLITS 1103	WILLITS 110337504	7.64	496	n/a	0.01	0.00	2. >10 - 20%

Circuit Name	Circuit Protection Zone	Tree Weighted Risk Score	Tree Weighted Rank	Plan (Mile Cutoff)	Miles Complete and Verified as of 6/30/21 (Audited)	Miles Ready for Work Verification as of 6/30/21 (Unaudited)	Risk Miles by Percentage (Top 20%)
AUBERRY 1101	AUBERRY 1101R2839	7.47	501	n/a	0.04	0.12	2. >10 - 20%
NARROWS 2102	NARROWS 210248484	7.35	503	n/a	1.55	0.55	2. >10 - 20%
BANGOR 1101	BANGOR 110131502	7.32	504	n/a	0.05	0.00	2. >10 - 20%
MOUNTAIN QUARRIES 2101	MOUNTAIN QUARRIES 21011346	7.19	510	n/a	0.22	0.00	2. >10 - 20%
BROWNS VALLEY 1101	BROWNS VALLEY 110117011	7.11	512	n/a	0.15	0.16	2. >10 - 20%
WYANDOTTE 1107	WYANDOTTE 110777578	7.09	515	n/a	0.19	0.00	2. >10 - 20%
SAN JOAQUIN NO2 1103	SAN JOAQUIN #2 1103157026	6.10	553	n/a	0.13	0.18	2. >10 - 20%
UKIAH 1111	UKIAH 111129452	4.79	620	n/a	0.05	0.00	2. >10 - 20%
POTTER VALLEY P H 1105	POTTER VALLEY P H 110576498	4.37	658	n/a	0.06	0.00	3. >20 - 30%
OLETA 1101	OLETA 11011208	4.12	675	n/a	0.27	0.00	3. >20 - 30%
BRUNSWICK 1105	BRUNSWICK 11052210	3.92	692	n/a	0.13	0.00	3. >20 - 30%
OREGON TRAIL 1103	OREGON TRAIL 11031500	3.80	703	n/a	1.84	0.00	3. >20 - 30%
GEYSERVILLE 1101	GEYSERVILLE 1101circuit_breaker	2.89	780	n/a	0.09	0.16	3. >20 - 30%
NARROWS 2102	NARROWS 21022220	2.59	807	n/a	0.03	0.00	3. >20 - 30%
BELL 1108	BELL 1108circuit_breaker	2.17	864	n/a	0.02	0.06	3. >20 - 30%
OREGON TRAIL 1103	OREGON TRAIL 11031448	2.10	877	n/a	0.31	0.03	3. >20 - 30%
OLETA 1101	OLETA 11011217	1.99	896	n/a	0.57	0.00	3. >20 - 30%
SHINGLE SPRINGS 2109	SHINGLE SPRINGS 210911092	1.92	910	n/a	0.13	0.00	3. >20 - 30%
KONOCTI 1102	KONOCTI 1102948	1.68	960	n/a	0.00	0.00	3. >20 - 30%
WYANDOTTE 1107	WYANDOTTE 110796390	1.61	980	n/a	0.09	0.00	4. >30 - 40%
KONOCTI 1102	KONOCTI 1102532	1.44	1021	n/a	0.00	0.00	4. >30 - 40%
TIVY VALLEY 1107	TIVY VALLEY 11077380	1.42	1025	n/a	3.48	0.06	4. >30 - 40%
OLETA 1101	OLETA 11014768	1.41	1028	n/a	0.43	0.00	4. >30 - 40%
MORGAN HILL 2105	MORGAN HILL 210542348	1.37	1038	n/a	0.32	0.00	4. >30 - 40%
KONOCTI 1102	KONOCTI 1102596	1.20	1095	n/a	0.02	0.00	4. >30 - 40%
WOODSIDE 1101	WOODSIDE 11011922	0.84	1198	n/a	0.07	0.02	4. >30 - 40%
BRUNSWICK 1106	BRUNSWICK 110663124	0.73	1241	n/a	0.21	0.00	4. >30 - 40%
WILLITS 1104	WILLITS 110434008	0.71	1251	n/a	0.08	0.00	4. >30 - 40%
SILVERADO 2104	SILVERADO 2104circuit_breaker	0.70	1257	n/a	0.01	0.00	4. >30 - 40%
OAKHURST 1101	OAKHURST 1101circuit_breaker	0.66	1268	n/a	0.18	0.05	4. >30 - 40%
LINCOLN 1104	LINCOLN 11045391	0.62	1283	n/a	0.37	0.00	4. >30 - 40%
OAKHURST 1103	OAKHURST 11035732	0.61	1292	n/a	1.04	0.00	4. >30 - 40%
OAKHURST 1103	OAKHURST 11035120	0.56	1317	n/a	0.04	0.07	5. >40 - 50%
OLETA 1101	OLETA 110151740	0.48	1386	n/a	0.52	0.00	5. >40 - 50%
OAKHURST 1103	OAKHURST 110310190	0.44	1403	n/a	0.02	0.00	5. >40 - 50%
KESWICK 1101	KESWICK 11019712	0.43	1418	n/a	0.06	0.00	5. >40 - 50%
WILLITS 1102	WILLITS 11021270	0.43	1420	n/a	0.10	0.00	5. >40 - 50%
DIAMOND SPRINGS 1105	DIAMOND SPRINGS 1105circuit_breaker	0.42	1424	n/a	0.22	0.00	5. >40 - 50%
TIVY VALLEY 1107	TIVY VALLEY 1107circuit_breaker	0.41	1431	n/a	2.26	0.07	5. >40 - 50%
RINCON 1103	RINCON 1103568	0.41	1435	n/a	0.68	0.00	5. >40 - 50%
BANGOR 1101	BANGOR 11011806	0.35	1478	n/a	0.56	0.00	5. >40 - 50%
OAKHURST 1103	OAKHURST 11035470	0.34	1481	n/a	0.02	0.00	5. >40 - 50%
MARIPOSA 2101	MARIPOSA 21014410	0.29	1525	n/a	0.05	0.00	5. >40 - 50%
OAKHURST 1101	OAKHURST 11016220	0.22	1604	n/a	4.12	0.40	5. >40 - 50%
MARIPOSA 2101	MARIPOSA 210135244	0.17	1679	n/a	0.01	0.00	6. >50%
PASO ROBLES 1103	PASO ROBLES 1103N58	0.16	1684	n/a	0.07	0.00	6. >50%

Circuit Name	Circuit Protection Zone	Tree Weighted Risk Score	Tree Weighted Rank	Plan (Mile Cutoff)	Miles Complete and Verified as of 6/30/21 (Audited)	Miles Ready for Work Verification as of 6/30/21 (Unaudited)	Risk Miles by Percentage (Top 20%)
KONOCI 1102	KONOCI 11022293	0.16	1688	n/a	0.05	0.00	6. >50%
CURTIS 1705	CURTIS 17058110	0.12	1764	n/a	0.07	0.00	6. >50%
RINCON 1103	RINCON 1103circuit_breaker	0.12	1767	n/a	0.02	0.00	6. >50%
MORGAN HILL 2105	MORGAN HILL 2105circuit_breaker	0.10	1787	n/a	0.01	0.00	6. >50%
BROWNS VALLEY 1101	BROWNS VALLEY 1101circuit_breaker	0.07	1859	n/a	0.04	0.00	6. >50%
PUEBLO 2103	PUEBLO 2103694	0.03	2020	n/a	0.15	0.00	6. >50%
SOBRANTE 1102	SOBRANTE 1102circuit_breaker	0.01	2149	n/a	3.74	0.00	6. >50%
MORGAN HILL 2105	MORGAN HILL 2105XR602	0.00	2260	n/a	0.00	0.00	6. >50%
RINCON 1103	RINCON 1103472	0	2775	n/a	0.28	0.00	6. >50%
#N/A	Null	0		n/a	0.00	0.00	#N/A

Total		1038.84			83.14	8.13	
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Note: "As part of EVM's process, a circuit segment categorized as completed (work verified), may revert to an in-progress status if a new vegetation point (tree) is associated with a circuit segment after the work verification was completed. If this were to occur, miles associated with this circuit segment will not be recognized as complete until work verification has been re-performed. This condition could cause progress which was recognized in one quarter to not be recognized in a subsequent quarter."

PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT O
ACTION PLAN IN RESPONSE TO INTERNAL AUDIT REPORT

INTERNAL AUDIT OBSERVATION AND PROPOSED ACTION PLAN

Internal Audit Observation and Request

Objective: Propose an action plan for future representations of risk values from the Wildfire Distribution Risk Model (WDRM)

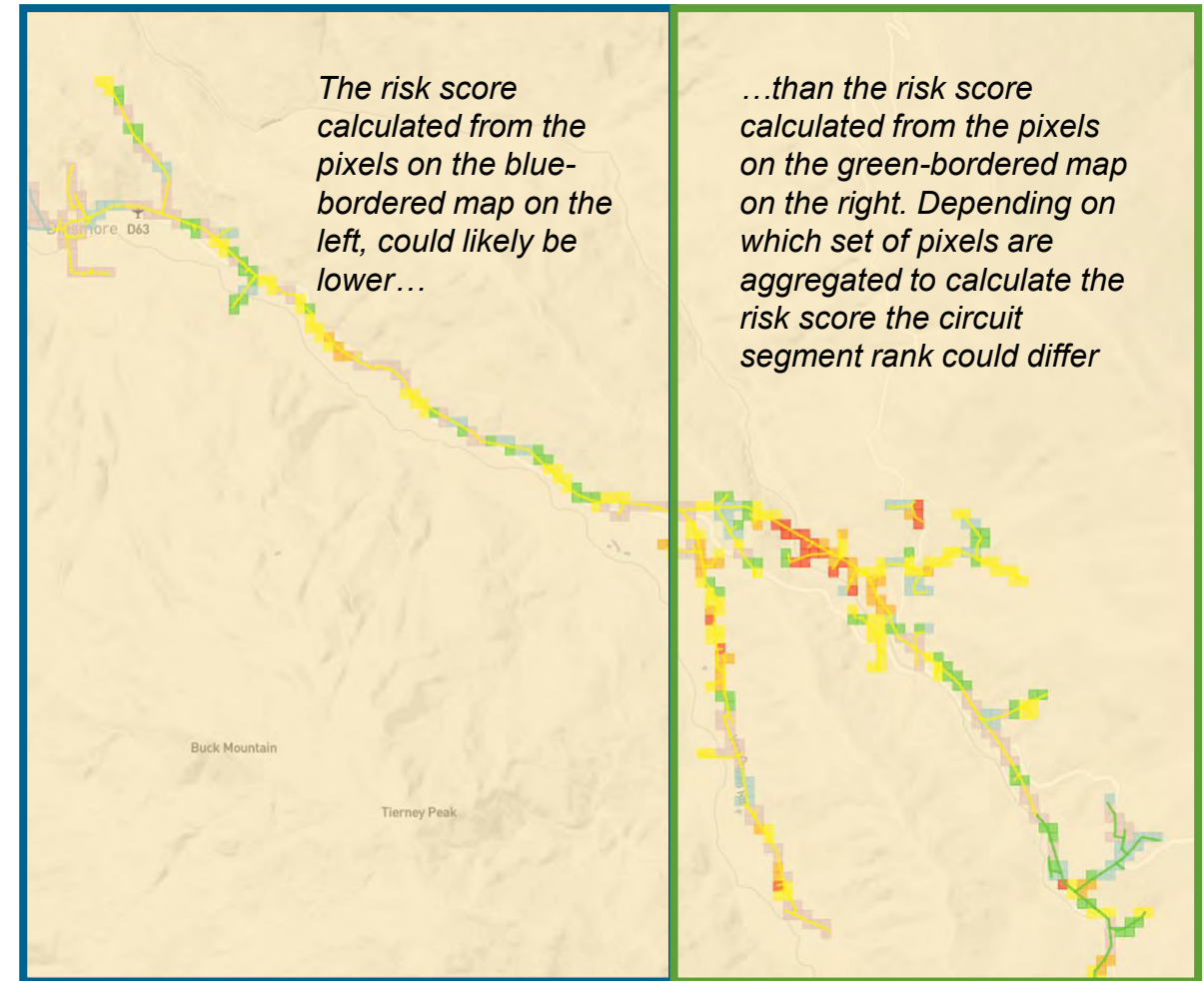
Background: In the May 21, 2021, Internal Audit report of Enhanced Vegetation Management Tree-Weighted Prioritization List the following 'data limitation' was highlighted as an area for future improvement to the WDRM and its use.

Issue: During our review, we found some data limitations both in the 2021 Wildfire Distribution Risk Model and in the March 2021 EVM Tree-Weighted List that impacted our ability to fully assess the risk in the resulting March 2021 EVM Scope of Work. These included:

3) While visually reviewing maps, IA noted that high-risk circuit segments could extend past a Unified Grid Map boundary into an adjacent Unified Grid Map. The risk associated with this portion of a segment may be diluted when combined with other larger, lower-risk segments within the adjacent Unified Grid Map or may be omitted from the analysis if the extension is within a Tier 1 area. **While this is a known limitation of the current process, EVM should analyze the overall impact and determine if it needs to be addressed in future improvements to the analysis.**

For item (3), the **Utility is reviewing options for modifying its analysis, including segment aggregation processes and will provide an action plan to address this issue by June 28, 2021.**

Example: The Low Gap 11012094 CPZ, shown below, could extend from one Unified Grid Map boundary to another.



Analysis & Proposed Action Plan

Summary of Analysis: PG&E Wildfire Risk acknowledges the limitations of the 2021 approach using additional steps to account for tree density not in WDRM and to consider completed work also not included in the WRDM.

Proposed Solution: The Wildfire Risk team is already addressing the potential risk dilution issue identified by IA by integrating LiDAR data, where available and updated satellite imagery elsewhere, directly into future evolutions of the WDRM (in development in 2021) to avoid post processing in the future.

The future EVM Work Scope will be informed directly by the risk values provided by the WDRM at the pixel level, identify pixels that have completed vegetation work, and provide a prioritization at the Unified Grid Map and CPZ level.

Finally, PG&E has invested in an enterprise data integration and visualization platform to provide asset and vegetation information freely to enterprise and operations users.

Proposed Action Plan:

Step 1:

Integration of tree density information from LiDAR data into the next generation WDRM; and performance testing against prior model.

Date: April through July, 2021

Step 2:

- Evaluate the impact (degree of shift) that would be created within the 2021 EVM Tree Weighted Prioritization List using the new approach
- Present findings and recommendation to Wildfire Risk and Vegetation Management leadership for review and approval

Date: September 24, 2021

Step 3:

Seek approval for the new approach and prioritization from the Wildfire Risk Governance Steering Committee.

Date: October 29, 2021