

**PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2023
Data Response**

PG&E Data Request No.:	OEIS_012-Q001		
PG&E File Name:	WMP-Discovery2023_DR_OEIS_012-Q001		
Request Date:	August 30, 2023	Requester DR No.:	P-WMP_2023-PG&E-012
Date Sent:	September 27, 2023	Requesting Party:	Office of Energy Infrastructure Safety
DRU Index #:		Requester:	Dakota Smith

SUBJECT: REGARDING PG&E’S RESPONSE TO RN-PG&E-23-07

QUESTION 001

- a. Considering that there are no fields in OneVM to collect Level 2 inspection data,¹ the TRAQ form will not be digitized,² and the Focused Tree Inspection procedure does not require inspectors to take a photo of completed TRAQ forms,³ what data and information do PG&E plan to use to perform field-based quality control on Level 2 inspections performed under Focused Tree Inspections?
- b. Describe the quality control procedure for Focused Tree Inspections.
- c. How are the paper TRAQ forms generated through Focused Tree Inspections collected and stored by PG&E?
- d. For Focused Tree Inspections, Routine, and Second Patrol:
 - i. How and where does the inspector document relevant factors that contributed to an inspector’s designation of a tree as a hazard, or not a hazard, and any resulting abatement prescription?
 - ii. If PG&E does not record this information, justify why it does not record this information.
- e. In response to remedy c, PG&E states that it plans to only inspect part of its Areas of Concern through the Focused Tree Inspections. What is PG&E’s purpose in identifying all 4,812 circuit miles that comprise the Areas of Concern if it only plans to perform Focused Tree Inspections on 43% of those miles by the end of 2024?
- f. In PG&E’s response to Data Request P-WMP_2023-PG&E-001, Question 2, PG&E describes updates it made to its Tree Assessment Tool (TAT) in 2022.
 - i. Was this updated TAT ever operationalized?
 - (1) If so, when was it operationalized? (i.e., used by all inspectors in the field to perform tree risk assessment under EVM)
 - (2) If not, why was it not operationalized?

1 PG&E’s Revision Notice Response, page 105.
2 PG&E’s Revision Notice Response, page 106.
3 TD-7102P-01-Att07.

- ii. Provide the most recent version of the updated TAT, even if that version was not operationalized.
 - iii. Provide any reports regarding the 2022 update of the TAT, including, but not limited, documentation of methodologies, application, internal reviews, and external reviews.
- g. In response to remedy j, PG&E states that the current residual risk due to Tree Removal Inventory trees is 7% of vegetation risk in the HFTD.⁴ Does PG&E's analysis regarding the "percent of vegetation risk" assume that 100% of the vegetation risk in the HFTD can be mitigated?
- i. If so, justify this assumption.
 - ii. If not, what percentage of vegetation risk does PG&E estimate it can mitigate in the HFTD?
- h. In response to remedy l, PG&E states that it expects its updated Distribution Inspection Procedure to achieve improved risk reduction of approximately 3 percent over the legacy Distribution Inspection Procedure.⁵ Populate the empty cells of the following table:

Scenario	Risk Points Reduced	Annual Exposure (miles)	Annual Cost (\$M)	\$/Risk Point Reduced(\$M)	Vegetation Risk Reduced (%)
Updated Routine and Second Patrol					
Legacy Routine and Second Patrol					

- i. Provide "WMP-Discovery2023_DR_CalAdvocates_028-Q019Atch01CONF.pdf".
- j. In response to remedy f, PG&E states that it will hire 150 Vegetation Management Inspectors (VMI) by the end of December 2024.
- i. How did PG&E determine it needed 150 additional VMIs?
 - ii. To what inspection program will these VMIs be assigned? (e.g., Routine, FTI, etc.)
 - iii. How many TRAQ certified VMIs does PG&E expect it will need to complete its 2024 Focused Tree Inspections target and scope? (i.e., 1,800 miles with Level 2 inspections of all strike trees)
 - iv. How many Vegetation Management Inspectors (VMIs) does PG&E currently have? Indicate how many of these inspectors are contractors and how many are employees of PG&E. Additionally indicate how many are assigned to each PG&E region.

⁴ PG&E's Revision Notice Response, page 106.

⁵ PG&E's Revision Notice Response, page 109.

- k. In response to remedy f, PG&E states that in 2024 it will perform Level 2 inspection of all strike trees along 1,800 circuit miles under Focused Tree Inspections. Why has PG&E not committed to performing Level 2 inspections on all strike trees along 1,800 circuit miles in each year, 2025 and beyond?
- l. Considering that PG&E has performed hundreds of thousands (if not more) 360-degree inspections under EVM and that Level 2 inspections are already extensively used by its peers for wildfire mitigation:
 - i. Why must PG&E evaluate the results of additional inspections performed using the industry accepted Level 2 strike tree standard?
 - ii. Why will this evaluation take until 2026 to complete?

ANSWER 001

- a. PG&E will update our FTI procedure to reflect a change in process for 2024 that will require users to record level 2 inspection data through a digitized Tree Risk Assessment form. The intent is to create a record of every strike potential tree indicating that it has been assessed with a Level 2 inspection.

The Quality Management team will use a list of completed Focused Tree Inspection (FTI) locations and completed Tree Risk Assessment forms to perform quality assessments.

- b. The Major Infrastructure Delivery – Quality Management team performs quality assessments in accordance with the FTI procedure bulletin *WMP-Discovery2023_DR_OEIS_012-Q001Atch01.pdf*.
- c. For the 2023 Pilot of FTI, the TRAQ Basic Tree Risk Assessment form was utilized as a reference to perform Level 2 inspections. In 2024, PG&E plans to digitize the Tree Risk Assessment form. In line with our filed WMP, the Tree Risk Assessment Forms will be filled out by our TRAQ certified arborist and will be digitized and stored electronically. Please see response to ‘a’ for more information.
- d.
 - i. In 2024, PG&E will be enhancing One VM for Routine, Second Patrol and FTI to include the capability to capture factors for prescribing trees for removal. In addition, the following process change has been implemented: Comments/Reasons are required if a work prescription changes at any time after the initial prescription.
 - ii. Please see response to ‘d.i.’ regarding our planned enhancement.
- e. The FTI program was derived from Revision Notice PGE-22-09 commitments, which required benchmarking with other IOU’s on use of predictive and risk modeling in Vegetation Management. After conducting these sessions PG&E implemented a process like SCE and developed Areas of Concern (AOC). This development process became a WMP commitment which resulted in the initial 4,812 miles being identified within 102 polygons (Areas of Concern) within the service territory where vegetation specific data (outages, ignitions PSPS damage) paired with other risk informed circuit evaluation information available.

Following the development of AOC, PG&E also committed to perform a pilot starting in Q2 of what was ultimately called the Focused Tree Inspection (FTI) program. This pilot was implemented to develop initial guidance and scope that would inform process and resources needs to progressively develop the program to full implementation by 2025. Completing the pilot of the program as committed was the reason that ~250 miles of the 4,800 miles identified are planned for completion in 2023.

The pilot is ~90 percent complete as of September 1, 2023. PG&E will report out lessons learned from the pilot to the WRGSC to support decision making and the ultimate path forward for the program. These steps all conform to PGE-22-09 commitments.

The initial AOC process is also slated for annual review and improvement utilizing improved data and emerging modeling, which is underway for 2024 planning.

The supplemental response to Revision Notice PGE-23-07 has incorporated new commitments for the FTI program which commit to annually applying the program to 1500 miles within the AOC approved for 2024 and subsequent years.

f.

i. No, the updated TAT was never operationalized.

1. Not applicable

2. PG&E has decided to follow accepted industry standards for tree inspections in its newly developed programs (TRI and FTI). This is reliant on evaluation by qualified TRAQ certified arborists. The original TAT was developed for the EVM program.

ii. Please see *WMP-Discovery2023_DR_OEIS_012-Q001Atch02.xlsx* for the most recent version of the TAT. Please note, this version was never operationalized.

iii. As noted above, TAT 2.0 was never operationalized for various reasons that are not set forth in these reports. Internal review of responsive documents are still ongoing and we will supplement as necessary. aid, The following documents include may be responsive to your request:

o *WMP-Discovery2023_DR_OEIS_012-Q001Atch03CONF.pdf*

▪ Endorsement letter from Kevin Eckert of Arbor Global

g. No, PG&E's analysis regarding the "percent of vegetation risk" does not assume that 100% of the vegetation risk in the HFTD can be mitigated. The 7% of vegetation risk represents the percentage of 'Tree (trunk)' sub driver contributes from the Wildfire Distribution Risk Model. PG&E does not have a specific percentage of vegetation risk that it can mitigate in HFTD, but recognizes each vegetation management program is meant to target specific vegetation risk drivers, which is expected to reduce the overall vegetation risk in HFTD.

h. PG&E's updated routine and second patrol is expected to provide an additional 299 points of incremental risk reduction. PGE did not calculate the risk reduction of the legacy routine and second patrol, only the incremental benefit, as the existing legacy

patrol programs represents a control, which maintains the current level of risk. As such, the table is not fully populated.

Here is the table below:

Scenario	Risk Points Reduced	Annual Exposure (miles)	Annual Cost (\$M)	\$/Risk Point Reduced(\$M)	Vegetation Risk Reduced (%)
Updated Routine and Second Patrol	299	~120K	~\$800M	~\$2.68M	~3%
Legacy Routine and Second Patrol	N/A	N/A	N/A	N/A	N/A

i. Please see *WMP-Discovery2023_DR_OEIS_012-Q001Atch04CONF.pdf*.

j.

- i. Vegetation Management (VM) Leadership evaluated the existing VM internal and contract workforce and workplans to determine adequate resourcing needs by region. After reviewing the ability to manage and execute safe internalization of VMI over a period of time, PG&E determined that the addition of 150 internal VMI across the territory would allow for improved oversight of the vegetation work being completed..
- ii. Vegetation Management Inspectors (VMI) are trained for and utilized on various programs. Their assignments may change within the region, or shift based on the need to achieve the scope of work for each program..
- iii. In 2024, a Level 2 inspection will be required on all strike trees in the FTI scope of work. The completion of the 2024 FTI scope of 1500 miles, which has been adjusted in the Supplemental Revision Notice Response on submitted on September 27, 2023, to account for record keeping updates, including digitizing the Tree Risk Assessment Form, is expected to require approximately 150 TRAQ VMIs.
- iv. Please see table below for External and Internal Distribution VMI(s) broken down by region. Please note, the headcount totals are accurate as of September 1, 2023.

Region	External VMI	Internal VMI
North Valley	194	29
North Coast North	139	13
North Coast South	167	9
Central Coast	186	26
Central Valley	271	25

Sierra	312	30
Bay	74	10
Totals	1343	142

- k. PG&E intends to perform Level 2 inspections on all strike potential trees in the 2024 and 2025 FTI scope of work. The knowledge gained during these two years will help us determine how best to shape the program for 2026 and beyond, this includes determining how best to use Level 2 inspections.
- l. Refer to response K as PG&E is utilizing TRAQ certified arborists to perform Level 2 inspections on all strike trees in 2024's FTI program.
 - i. PG&E utilized TAT for the EVM program as an option for Level 2 inspections. We completed benchmarking with SCE and SDG&E on Level 2 process, procedure, and tools, and updated our processes based on lessons learned. Currently PG&E is utilizing the ISA Basic Tree Risk Assessment form with TRAQ certified arborists to guide its Level 2 inspections.
 - ii. PG&E will utilize the knowledge gained in 2024 and 2025 to compare Level 2 inspection processes listed in (i) above against the tools and processes utilized by SCE and SDG&E to inform decision making and programmatic application(s) beyond 2025. As a result of this analysis, should further process or program changes be determined as necessary for future years work, PG&E will develop a change management plan to ensure that adequate time is allotted to implement these changes based on lessons learned.