

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigations Plans Discovery 2026-2028
Data Response

PG&E Data Request No.:	OEIS_005-Q008
PG&E File Name:	WMP-Discovery2026-2028_DR_OEIS_005-Q008
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Requester DR No.:	OEIS-P-WMP-2025-PG&E-005
Requesting Party:	Office of Energy Infrastructure Safety
Requester:	Nathan Poon
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SUBJECT: REGARDING CLIMATE-DRIVEN EXTREME RISK

QUESTION 008

Figure PG&E-5.3.2-1 (p. 90, PG&E's 2026-2028 Base WMP) shows scenarios involving climate driven risk as part of extreme event evaluation. However, in PG&E's response to data request OEIS-P-WMP_2025-PG&E-001, Question 24, PG&E discusses conflagration risk as part of its extreme scenarios.

- a. Provide a description of what PG&E is planning on implementing changes related to climate-driven risk as it relates to the research paper in Figure PG&E-5.3.2-1.
- b. Provide a timeline, with dates (at a minimum, quarter and year) for when PG&E is planning on implementing changes related to climate-driven risk as it relates to the findings from the research paper referenced in Figure PG&E-5.3.2-1.
- c. If no such changes are planned relating to the figure, describe why no such changes are planned.

ANSWER 008

- a. Physics-based models: PG&E's physics-based models provide a risk-based framework for evaluating the condition of transmission line assets subject to various hazards, which could be used to assess changes in failure likelihood during extreme events. These models use a variety of data to evaluate the current condition of an asset relative to the condition of a new pristine asset. These data are used to adjust the median condition of an asset, resulting in an estimate of the probability of failure at a given wind speed, for example, in the form of an asset-specific fragility curve.

Machine Learning (ML) models: PG&E's incorporation of extreme scenario handling within its ML models is more challenging. For the WDRM models, each model update incorporates the recent ignitions and historical fires that have occurred since the last update. As more extreme scenarios are experienced, it would be expected that with each fire season either the number of ignitions will increase, the frequency of ignitions will increase, or fire outcomes will be more severe. These deviations from what was expected via the prior model will be incorporated into the new training data sets for the new model, and hence the locations of highest relative risk will

change to account for the extreme scenarios that have occurred, driven by changes to both the probability of ignition and the consequence models.

Additionally, RaDA is evaluating methodologies to estimate climate impacts as a post-processing step rather than developed as an integral part of the models.

The discussion about conflagration risk in the prior answer is our most current work where we are looking at how some types of extreme scenarios might be accounted for directly within the consequence model.

- b. PG&E is planning to evaluate methodologies to incorporate future climate impacts into ML models. If successful, the enhancements would be incorporated into WDRM v5 or with WDRM v5 if the methodology is a post-processing step. The WDRM v5 release is tied to the WMP submission cycle. The next Base WMP is expected to be submitted in April 2028 and, if the evaluation determines it is appropriate, this would coincide with the release of a new version of the WDRM.
- c. Not applicable.