

**BEFORE THE OFFICE OF ENERGY INFRASTRUCTURE SAFETY  
OF THE STATE OF CALIFORNIA**

Office of Energy Infrastructure Safety  
Natural Resources Agency

**COMMENTS OF THE GREEN POWER INSTITUTE ON THE  
SOLICITATION FOR PUBLIC INPUT FOR THE NEXT  
ITERATION OF WILDFIRE MITIGATION PLAN GUIDELINES**

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## **COMMENTS OF THE GREEN POWER INSTITUTE ON THE SOLICITATION FOR PUBLIC INPUT FOR THE NEXT ITERATION OF WILDFIRE MITIGATION PLAN GUIDELINES**

The Green Power Institute (GPI), the renewable energy program of the Pacific Institute for Studies in Development, Environment, and Security, provides these *Comments of the Green Power Institute on the Solicitation for Public Input for the Next Iteration of Wildfire Mitigation Plan Guidelines*.

### **Introduction**

GPI provides comments on the following topics and recommendations regarding the WMP guideline documents listed in the *Soliciting Public Input for Next Iteration of WMP Guidelines* request for comment:

1. Process Development: Establish a process that provides transparency into OEIS Staff proposals and internal OEIS developments.
2. Process Development: Establish a WMP Development Track to address more complex WMP development and standardization issues.
  - 2.1. Integrate more readily implementable and straight forward WMP method alignment measures in the 2026-2028 WMP Technical Guidelines.
  - 2.2. Scope the development of longer-term and/or more complex standardization efforts in a separate WMP development track.
  - 2.3. Map existing relationships between the OEIS managed WMP, active CPUC proceedings, and legislative actions.
3. Maturity Model and Survey: Validate, update, and assess the operationalization value of the Maturity Model Survey.
  - 3.1. Issue a maturity model survey summary for IOUs and SMJUs as a separate element of the annual WMP cycle, ~1 month following the Utility Survey response filing deadline, but prior to public comment deadlines.

- 3.2. Include a validation and verification assessment of the Maturity Model Survey that includes a review of Utility self-scoring responses.
  - 3.3. Conduct a comprehensive review of Maturity Model Survey question design and response formats that informs a revision process.
  - 3.4. Report the basis for quantitative Maturity Survey targets and or update targets to reflect current field-specific capabilities.
  - 3.5. Revise maturity model survey questions and scoring methods that can conflate utility preparedness and/or that do not apply to some utilities.
  - 3.6. Identify critical path capabilities and prioritize foundational capabilities.
4. WMP Process and Evaluation Guidelines: Establish transparent and measurable thresholds for WMP Approval/Denial.
    - 4.3. Score WMPs on a graded scale.
6. 2026-2028 Base WMP Technical Guidelines: Require Utilities to report (i) annual tree removal data, (ii) percent of VM residues removed from worksites, and (iii) whether/when vegetation management residues are diverted to end-use pathways.
  7. 2026-2028 Base WMP Technical Guidelines: Require IOUs to report on planning risk model outputs for the entirety of the distribution and transmission systems and leverage existing public web-based platforms with downloadable data and public access capabilities.
8. GPI recommends near-term and medium-term actions to advance planning standard transparency and development, respectively.
    - 8.1. 2026-2028 Base WMP Technical Guidelines (Near-term): Require Utilities to identify when and how risk modeling outputs are applied.
    - 8.2. WMP Development Track (Mid-term): Formally identify the need to establish a top-down risk tolerance planning standard/threshold and/or any conversion methods necessary to relate existing model output capabilities to an adopted planning standard. Identify the agency under whose jurisdiction this falls.

**1. Process Development: Establish a process that provides transparency into OEIS Staff proposals and internal OEIS developments.**

GPI respectfully requests that the OEIS recognize that GPI and other stakeholders were not provided with information on, nor have knowledge of, OEIS directional plans or existing preliminary updates for the 2026-2028 WMP Guidelines at the time of preparing these comments. GPI assumes in good faith that the documents referenced in the request for comment functions as an OEIS “staff proposal.” In the absence of other documentation and without knowledge of OEIS internal developments, stakeholder comments on the referenced documents should constitute material contributions and should therefore not be designated as “stakeholder comments [that] concur with topics already included in Energy Safety’s findings,” as was stated in 2023-2025 WMP Draft Decisions.

We encourage the OEIS to issue staff proposals for developing WMP methods, processes, and guidelines to establish a transparent public record, prompt informed comments, and that clarifies what constitutes stakeholder support versus substantial input.

GPI is also a participating member of the Risk Management Working Group (RMWG). A request for comments on RMWG topics was made in the March 20, 2024, meeting, though the filed request for comments did not include this aspect of eligible comments and the RMWG does not provide a written or recorded public record. GPI therefore provides comments herein that address topics raised in the March 20, 2024, RMWG meeting and respectfully requests that these comments be considered as in scope.

**2. Process Development: Establish a WMP Development Track to address more complex WMP development and standardization issues.**

**2.1. Integrate more readily implementable and straight forward WMP method alignment measures in the 2026-2028 WMP Technical Guidelines.**

The March RMWG meeting initiated preliminary discussion on risk modeling standardization and incorporation into the 2026-2028 WMP Guidelines. GPI recommended identifying and addressing “easier,” less complex, and perhaps less controversial risk modeling standardization topics from the extensive RMWG discussions for application in the 2026-2028 WMP cycle and guidelines. For example, standardizing fuel-scape inputs by establishing requirements such as a

minimum reanalysis frequency, data granularity, and/or forward forecast period (e.g. 10-year forward).

Many risk modeling development topics have a wide range of standardization options that must be assessed to ensure an efficient transition with long-term application. However, there is a relatively short timeline prior to the anticipated Draft 2026-2028 WMP Guidelines filing in June 2024. Three months, which overlap the newly developed 2025 WMP Update filing, review, and comment period, does not provide sufficient time to develop, deliberate via public record, and polish more complex or controversial risk analysis standardization topics that could culminate in OEIS decisions ready for integration into the 2026-2028 WMP Technical Guidelines.

## **2.2. Scope the development of longer-term and/or more complex standardization efforts in a separate WMP development track.**

GPI cautions against becoming overly focused on piecemeal standardization of easier-to-implement WMP aspects by confining the development process to the year before a Base WMP filing and/or to the 3-year WMP cycle. The 3-year WMP cycle has come a long way since the modern design was initiated circa 2019. While iterative process updates are warranted and important, the 3-year WMP filing cycle should morph into a relatively stable and predictable program that essentially functions to plan for, approve, implement, and audit compliance with existing requirements and that informs the development of new requirements. Not all relevant and valuable updates to the WMP and issues for continued development will fit neatly into a “business-as-usual” year ahead update or 3-year WMP cycle. More complex WMP method development processes should also not be shoehorned piecemeal into 3-year WMP cycles. Attempting to shoehorn more complex WMP development aspects into the WMP cycle may come at the expense of a thorough development process or may result in some foundational, more complex development issues being sidelined (e.g. risk tolerance standards/thresholds, model standardization).

GPI recommends establishing a WMP Development Track that can address more complex WMP development and standardization topics (e.g. risk tolerance, foundational risk models and methods). A WMP Development Track could employ staff proposals, public comment periods, and workshops, that build the public record on in-scope issues and that culminate in OEIS

decisions. OEIS Development Track Decisions would serve as a hand-off into the regular WMP cycle as determined by each decision (e.g. implementation timeline, new/updated reporting requirements etc.). This approach would create a pathway for holistically addressing complex WMP development topics that avoids shoehorning nascent issues into the 3-year WMP cycle.

### **2.3. Map existing relationships between the OEIS managed WMP, active CPUC proceedings, and legislative actions.**

WMPs address topics that sit at the intersection of multiple active CPUC proceedings (e.g. Climate Adaptation) and legislative actions (e.g. SB 884). The WMP development process would benefit from clarifying which of these serves as the primary authority for, or provide guidance on, WMP method development and standardization efforts. Undertaking concurrent and isolated development within the WMP may be inefficient and could result in conflicting approaches or require major revisions if the topics are being addressed elsewhere. Aspects of WMP development that OEIS determines to fall outside its jurisdiction should be made transparent and should be addressed through coordination with the authoritative agency. Mapping external proceedings, legislature, and/or regulatory authority to WMP components, including risk modeling components, could be displayed in box flow diagrams and/or narrations that are filed in a scope of work plan for a WMP Development Track.

### **3. Maturity Model and Survey: Validate, update, and assess the operationalization value of the Maturity Model Survey**

The solicitation for public input on the next iteration of WMP Guidelines lists the Wildfire Mitigation Maturity Model and Survey as in scope for comment. GPI appreciates the decision to include these documents for comment and notes that they are also relevant to the RMWG as they constitute the only tool currently available to directly compare risk models, model standardization, and maturity.

#### **3.1. Issue a maturity model survey summary for IOUs and SMJUs as a separate element of the annual WMP cycle, ~1 month following the Utility Survey response filing deadline, but prior to public comment deadlines.**

GPI appreciates the intention of the Maturity Model and Survey but has ongoing concerns about its contents and functionality. We interpret the intention of the Maturity Model and Survey as a

rubric that level sets between Utility capabilities as well as establishes best practices. However, the model/survey length, complexity, contents, and self-scoring nature coupled with late-stage summarization in Draft Decisions and lack of transparent operationalization render it a cumbersome and somewhat poorly developed tool for achieving its intended purpose.

The most recent Maturity Model documentation is nearly 200 pages with the Survey constituting 400+ pages that contain more than 1,000 questions. With each utility filing a Maturity Survey, this constitutes more than 2,400 pages of responses across 6 utilities each year. The IOU Draft 2023-2025 WMPs and ensuing Data Request Responses totaled upwards of 5,000+ pages. This volume of content is unwieldy at best and at worst may be overshadowing effective *prioritization* of capability maturation towards achieving standardized best practices in wildfire risk mitigation across the state.

Given limited review time the public and some stakeholders must selectively review the 1,000s of pages of content filed each year over the WMP cycle. GPI prioritizes the review of utility WMPs over the self-scored Maturity Survey filings for many reasons. Without summarized Maturity Model results and comparisons, reviewing the additional 2,400+ pages of Utility self-scored survey results is just not feasible. IOU and SMJU Maturity Survey response comparisons are not provided until OEIS issues WMP Draft Decisions. At that point, public comments may not take into consideration or comment on the Maturity Survey factors identified as relevant by the OEIS, creating a disconnect between OEIS Draft Decisions and public analysis.

GPI recommends issuing Maturity Survey result summaries for IOUs and SMJUs as an element of the annual WMP cycle prior to including the results in the Draft Decision. We further recommend filing survey result summaries approximately 1 month following the Utility Survey response filing deadline and prior to public comment deadlines. This will facilitate more meaningful public engagement with the Maturity Survey tool, will level-set public review with OEIS's assessment of most and least mature capabilities, and may support more actionable public comment on this OEIS tool.

### **3.2. Include a validation and verification assessment of the Maturity Model Survey that includes a review of Utility self-scoring responses.**

Based on new insights gleaned from implementing the Maturity Model and Survey, GPI recommends conducting a validation and verification assessment of this tool during the 2026-2028 WMP cycle. Verification should address questions like: “are we building the right tool,” and validation should address issues like: “are we building the tool right.” It is reasonable at this stage of implementation to assess whether the relatively new Maturity Model and Survey is the right tool for guiding, comparing, and/or enforcing WMP maturation, including for capabilities deemed critical (i.e. prioritization; verification). It is also reasonable to broadly assess whether the tool, as currently built, is built right to achieve the intended purpose (validation). GPI further recommends providing clarity as to whether and how the Maturity Model and Survey results are currently considered in the WMP approval/denial decision, ACI issuance process, and/or other WMP-related decisions. This is relevant to utilities, stakeholders, and the public, all of which would benefit from a better understanding of how the Maturity Survey is currently operationalized in the WMP 3-year cycle.

Given the benefit of the doubt, utilities likely complete the Maturity Survey questions to the best of their knowledge per internal interpretations. However, in numerous instances survey question design provides utilities with extensive latitude for the actual capabilities underlying the resulting responses and how they interpret each survey question. In some cases, survey question interpretations could lead to large differences in maturity that may not be captured by the survey results (i.e. validation; see recommendation 3.3). Consequently, the self-scoring nature and intrinsic design of the maturity survey coupled with the absence of agency or third-party validation means the public and stakeholders must independently validate and clarify survey responses based on the contents of Utility WMPs or via data requests.

Consistent with our prior recommendations, GPI recommends adding a Maturity Model Survey response review step that includes OEIS or third-party review of utility responses to ensure utilities are responding to each survey question according to the intended interpretation and



maturity target, as well as in alignment with methods reported their Base WMP.<sup>1</sup> GPI suggests minimally implementing a pilot Maturity Survey utility self-score review step for the 2026-2028 WMP Base filing year. This has the potential to increase stakeholder and public confidence in the Maturity Survey results, provide much needed insight on the functionality of the Maturity Survey results (i.e. verification), and will afford important feedback on the extent of any interpretation and/or question design issues (i.e. validation). The latter two outcomes can be employed to inform downstream decision making, such as whether the WMP process would benefit from major changes to the Maturity Survey, including the full range of options from elimination to further operationalization.

As part of this improvement effort, the Maturity Survey could require Utilities to record the corresponding location within the most recent Base WMP where information is available that backs up each survey question response. This would facilitate OEIS, third-party, and/or stakeholder Maturity Survey validation efforts. However, GPI is also concerned that the Maturity Survey design is already a time-consuming element of the WMP Process despite having limited evaluation value in its current state. Tacking on WMP reference requirements may detract from time that could be invested in making material changes. Priority should be given to first improving the usefulness of the Maturity Survey through OEIS led verification and validation efforts before increasing regulatory burden.

### **3.3. Conduct a comprehensive review of Maturity Model Survey question design and response formats that informs a revision process.**

The latitude afforded by Maturity Survey question design means that equivalent survey question responses can represent vast differences in actual maturity. For example, Category A. Risk Assessment and Mitigation Strategy, 1.1 Capability 1. Statistical weather, climate, and wildfire modeling, 1.1.1 Climate change, Question 1.1.1.Q1, asks:

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<sup>1</sup> GPI Comments on the Draft Revisions to Docs Related to 2025 WMP Updates, pp. 1-2.

1.1.1.Q1. Does the electrical corporation evaluate the impacts of population growth in the wildland-urban interface (WUI)?<sup>2</sup>

“Evaluate” is over simplified and essentially ascribes a pass/fail score to any utility that has a method remotely addressing the issue, in this instance WUI population growth considerations. The question/response pair does not clarify whether quantitative versus qualitative methods are expected or required to achieve method maturity. A Yes/No response could run the gamut of utility methodologies as well as whether and/or how the evaluation is applied. At present, the functionality and “maturity” of this risk assessment capability as well as current best practices would have to be confirmed by locating and reviewing relevant content in the WMPs or investigating via Data Request if it is not clarified in the WMP filing.

Continuing with this example, 1.1.1.Q1 does not define or constrain best practices for this capability. Establishing best practices for and benchmarking the maturity of a utilities’ capability to evaluate population growth in the WUI against those best practices would require at least some methodological specifications. For example, standardizing this capability should consider whether to require quantitative or qualitative methods. Quantitative requirements could include standardizing inputs, model methodology, and/or output elements, via specifics such as input/output granularity, reanalysis frequency, and forecast duration (e.g. 10-year forward projections). If evaluating the impact of population growth in the WUI were deemed a critical WMP capability, 1.1.1.Q1 does not provide sufficient information to assess whether a utility is adequately or appropriately “evaluating” and incorporating this capability in wildfire mitigation decision making in accordance with best practices, nor does it provide any meaningful comparison to other utility methodologies.

These same deficits apply to other maturity survey question/response formats. Hence, the self-scoring approach coupled with the survey question design has limited value for assessing the maturity of critical and complex WMP capabilities either for individual Utilities or across utilities. GPI has previously raised these and related concerns in comments. We recommend

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<sup>2</sup> 2023-2025 ELECTRICAL CORPORATION WILDFIRE MITIGATION MATURITY SURVEY, REVISED January 2024.

using extreme caution when taking into consideration self-scored maturity model survey results in its current form, especially regarding risk evaluation capabilities.

To remedy this issue, GPI recommends conducting a comprehensive review of Maturity Model Survey question design and response formats during the 2026-2028 WMP cycle. This review process should include results from a Maturity Survey self-score review process to inform how question/response design may have unintended consequences for benchmarking utility maturity. The review process should also explore whether the existing or a revised Maturity Survey tool can/should be streamlined, and/or transparently operationalized to better support WMP evaluation and method standardization decisions.

Not all relevant and valuable Maturity Model and Survey update and development issues may fit neatly into the “business-as-usual” 3-year WMP cycle process. GPI recommends the comprehensive review process occur in parallel with the 2026-2028 WMP cycle and Base WMP review process as part of a WMP Development Track.

#### **3.4. Report the basis for quantitative Maturity Survey targets and or update targets to reflect current field-specific capabilities.**

Maturity Survey questions may set capability targets that are infeasible or that detract from identifying critical path capabilities and/or capability prioritization. For example, in Capability 1. Statistical weather, climate, and wildfire modeling, additional questions are designed to assess “spatial granularity” (Section 1.1.6).<sup>3</sup> This section does not specify whether utilities should respond regarding data inputs or model outputs. It is entirely possible that a utility inputs higher resolution data than it outputs if a model spatially averages or aggregates data. Utilities may therefore respond differently to this survey question depending on interpretation, which would render results between utilities essentially incomparable.

There also does not seem to be a transparent basis for quantitative spatial or temporal granularity targets established in maturity survey questions. For example, weather versus climate modeling are very different capabilities with multiple applications that likely have different best-practice

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<sup>3</sup> 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Survey, Revised January 2024. pp. 13-15.

data and modeling granularities. Yet question 1.1.6.Q1 asks: What horizontal resolution is employed for statistical weather and climate models?<sup>sec, e.g. 4</sup> Clustering the input/output granularities for these models may not be appropriate. GPI highlights that a  $\leq 100$  m climate model is likely not feasible at this time and may not be necessary.<sup>sec, e.g. 5,6,7</sup> We therefore question the basis for this target. Separating the modeling granularity capabilities out may provide more meaning, however, this would also increase the number of survey questions.

It is also critical to ask what is gained from utilizing/producing more granular model inputs/outputs. Continuing this example based on Survey questions 1.1.6, what is the return on investment of achieving all the highest proposed levels of spatial or temporal granularity? Would achieving these benchmarks significantly improve risk modeling approaches and outputs for the intended application? Could achieving this high level of granularity come at a high cost, or at the expense of applying more robust probabilistic methodologies? If there are benefits, could the cost of the analysis (e.g. more/new weather stations, utility data collection requirements) outweigh the benefits? Does the cost-benefit change if the application is for operational versus planning models? Are these targets reasonable for SMJUs, which have more limited resources compared to the IOUs? Should some capabilities be prioritized based on cost-benefit? Does achieving the maximum maturity survey spatial granularity necessarily indicate that utilities are employing the optimal inputs, models, or outputs for the intended application? At a minimum, clarifying the basis for each maturity level and level setting with existing best practices where available (e.g. agencies, industry, academia) would help to ground Maturity Survey targets.

GPI strongly recommends establishing a transparent basis for quantitative spatial or temporal granularity targets in the maturity survey that include existing best practices from related industries, agencies, and/or the current state of the science. These targets can change in the

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<sup>4</sup> 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Survey, Revised January 2024. p. 14.

<sup>5</sup> Chan, S.C., Kendon, E.J., Fowler, H.J. *et al.* Does increasing the spatial resolution of a regional climate model improve the simulated daily precipitation?. *Clim Dyn* **41**, 1475–1495 (2013). <https://doi.org/10.1007/s00382-012-1568-9>.

<sup>6</sup> Palmer, T. Climate forecasting: Build high-resolution global climate models. *Nature* **515**, 338–339 (2014). <https://doi.org/10.1038/515338a>.

<sup>7</sup> Mizielinski, M. S., et al. "High-resolution global climate modelling: the UPSCALE project, a large-simulation campaign." *Geoscientific Model Development* **7.4** (2014): 1629-1640.

future as analytical capabilities advance. However, it is important to recognize a distinction between model development for the purpose of near-term application versus “Basic” research, which falls under the purview of research institutions. Pushing past the existing limits of current scientific and analytical capabilities is costly, time consuming, and may not always benefit ratepayers. It is also necessary to identify which Maturity Survey targets should be prioritized for maturation so that utilities can focus their efforts based on cost-benefit and/or the most impactful advancements.

### **3.5. Revise maturity model survey questions and scoring methods that can conflate utility preparedness and/or that do not apply to some utilities.**

GPI recommends evaluating the relevance and impact of survey questions for all utility sizes. Some survey questions may not readily fit SMJU operations. For example, Capability 30. “Preparedness and planning for service restoration”, 6.4.4.Q1 asks “How many ignitions resulted from re-energization in the previous year?” BVES, for example, has not implemented any PSPS events. An answer of “0” corresponds to the maximum maturity. This would increase their average and minimum maturity score without reflecting the effectiveness of methodologies. Maturity Model survey questions should be evaluated for their relevance to IOUs versus SMJUs and revised as needed to eliminate any unintended scoring biases. Efforts to prioritize survey sub-capabilities in order to better guide WMP maturation should also take into consideration SMJU size and resources.

### **3.6. Identify critical path capabilities and prioritize foundational capabilities.**

At present the Maturity Survey seeks utility standardization for over 1,000 sub-factors as defined by each survey question. As explained above, a “yes” response and/or achieving the maximum maturity for each survey question may not ensure cross-utility methodological alignment nor indicate optimal design or appropriate application. Based on our understanding, all questions are also assigned an equivalent weight. As a result the survey and survey summaries also cannot identify and/or ensure that the most critical aspects are prioritized and/or standardized. This design does not identify or prioritize incremental capabilities along a critical path to achieving complex capabilities such as risk planning model design, and application. Nor can it guide many critical elements of risk model standardization. These layered challenges may limit the

functionality of the Maturity Model Survey as a WMP evaluation metric suitable for operationalization.

In regard to WMP modeling approaches, GPI strongly recommends that modeling capabilities and the modeling inputs, model methods, and resulting outputs be considered holistically to correctly identify priorities for utility standardization. This same approach may be relevant to other WMP capabilities.

### **3.7. Explore ways in which the current and future validated/verified Maturity Survey can be operationalized.**

GPI recommends exploring whether and how the current and a future validated/verified Maturity Survey can be operationalized in the near and mid-term timeframes, respectively. GPI previously raised concerns that Liberty appears to project a level of maturation 3-years behind its peers in Asset Inspections and Equipment Maintenance and Repair by 2026.<sup>8</sup> By identifying and prioritizing foundational capabilities as well as baseline best practices captured in the 1,000+ Maturity Survey responses it may be possible to operationalize some elements of this tool to drive development in some critical capabilities. For example, OEIS could explore whether establishing Specific Measurable Achievable Relevant and Time-bound (SMART) objectives for Maturity Survey capabilities and sub-capabilities can drive WMP maturation in the right direction for utilities that are lagging. GPI recommends including this development process in a Maturity Model Survey response review, and tool validation and verification effort.

## **4. WMP Process and Evaluation Guidelines: Establish transparent and measurable thresholds for WMP Approval/Denial.**

### **4.1. Include adequately addressing ACI as a WMP Evaluation Criteria.**

The 2023-2025 WMP Process and Evaluation Guidelines list 7 WMP evaluation criteria: Completeness, Technical and Programmatic Feasibility and Effectiveness, Resource use Efficiency, Demonstrated year-over-year progress, Forward-looking growth, Performance metrics, and Targets. Adequately addressing ACI is identified as a WMP evaluation component

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<sup>8</sup> GPI Comments on the Draft Decision on the Liberty 2023-2025 WMP, pp. 2-3.

and potential basis for Plan denial under Section 4.7 “Decision” within the WMP Process and Evaluation Guidelines.<sup>9</sup> Despite the fact that this constitutes grounds for WMP denial, addressing ACIs is not specifically included under the WMP Evaluation Criteria (Section 5.1).

Satisfactorily addressing ACIs may fall under multiple evaluation criteria such as “Demonstrated year-over-year progress,” “targets,” or “Resource Use efficiency.” However, ACIs establish defined improvement requirements that in some cases are required to remedy identified deficits, and that have specific implementation timelines. ACIs are therefore distinct from generic WMP evaluation aspects. GPI recommends specifically including satisfactorily and timely addressing ACIs as a WMP Evaluation Criteria in Section 5.1.<sup>10</sup>

#### **4.2. Define thresholds for a utility’s failure to adequately address ACI.**

GPI recommends establishing transparent and defined grounds for denying a WMP based on failure to satisfactorily address ACI. GPI provided similar recommendations on the 2025 WMP Update Process Guidelines:

In the most recent WMP filing cycle, the OEIS Draft Decision on PacifiCorp’s 2023-2025 WMP found that PacifiCorp did not satisfactorily address 11 of 21 total ACI issued in 2022, the prior filing year. While PacifiCorp was issued a Revision Notice, its WMP is slated for Approval per the Draft Decision. It’s not clear to what degree a Utility must “[fail] to show maturation” based on insufficient responses to one or more ACI before it is issued a WMP Denial.<sup>11</sup>

At present the Utilities, the Public, and stakeholders do not have any inkling as to OEIS thresholds for Denying a Utility WMP. Establishing clearly defined thresholds for satisfactory ACI achievement rates is one instance where the WMP evaluation process can be improved to increase transparency while notifying Utilities of minimum advancement requirements based on Utility-specific ACI deliverables and timelines. For example, this criterion could include a minimum pass rate such as achieving a satisfactory achievement rate for 75 percent of issued ACI.

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<sup>9</sup> 2023-2025 WMP Process and Evaluation Guidelines, Revised January 2024. P. 8.

<sup>10</sup> See also: GPI Comments on the Draft Revisions to Docs Related to 2025 WMP Updates, pp. 2-3.

<sup>11</sup> GPI Comments on the Draft Revisions to Docs Related to 2025 WMP Updates, pp. 2-3.

### **4.3. Score WMPs on a graded scale.**

The seven WMP evaluation criteria in the 2023-2025 WMP Process and Evaluation Guidelines do not provide any measurable evaluation methods, targets, or benchmarks capable of indicating WMP quality or that clarify thresholds for Plan Denial. Utilities, stakeholders, and the public do not have any inkling as to what thresholds must be met in order to Approve or Deny a Utility WMP. There are also no transparent evaluation metrics that indicate the relative adequacy of each Utilities' WMP. The binary Pass/Fail system and ACI approach does not transparently identify which Utilities have superior, average, or inferior Plans and mitigation achievements per OEIS determined priorities and baseline requirements. Per our comments above, the Maturity Model and Survey may not adequately fill this gap either.

The OEIS may be reluctant to Deny a Utility WMP. However, this is misleading to the public since not all Approved WMPs may implement best practices. GPI recommends establishing current best practices and standardization parameters for critical WMP elements and capabilities that allow for accurate, direct, and actionable WMP comparisons. Other measurable metrics could include ACI and target achievement. Qualitative and quantitative baseline requirements should form the basis of transparent and measurable WMP evaluation metrics. Collectively these metrics should be reported in WMP scores or grades that offer a more transparent and measurable basis for plan Approval or Denial. This transparency will also drive Utility planning and plan achievement by providing transparent baseline expectations via operationalized scores.

At present, plan Approval versus Denial essentially constitutes binary repercussions regarding Safety Certification. Increasing transparency into the OEIS WMP Evaluation process can also operationalize Decisions beyond the WMP process. WMP plans are extensive documents that by and large are designed to provide information required for OEIS and stakeholder evaluation but are unwieldy and overly technical for most ratepayers. While separating executive summary content into a separate document per WSAB recommendations may facilitate information sharing with the public,<sup>12</sup> it should not be assumed that this measure provides ratepayers with

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<sup>12</sup> Evaluation of the WSAB's Recommendations for the WMPs and SCA Process, p. 6



adequate transparency into the quality of their service provider’s WMP compared with other utilities and current best practices. The OEIS can fill this ratepayer transparency gap without requiring additional Utility filings by employing a WMP grade and score report for all WMPs, whether Approved or Denied. The score report can be integrated into or attached to the Decision. This approach can extend the impact of OEIS Approval decisions through public transparency – equipping ratepayers, agencies, lenders, and other stakeholders with information regarding the relative quality of each service providers’ wildfire mitigation measures, strategy, and progress.

The current Maturity Model and Survey does not fulfill this capability per our comments and concerns addressed in Recommendations 3.1-3.7.

**5. WMP Process and Evaluation Guidelines: Include a CalFIRE input filing, whether filed by OEIS or CalFIRE.**

Public Utility Code Section 8386.3(a) requires that Energy Safety consult with CalFIRE. The 2023-2025 Decisions included a generic statement that “The Office of the State Fire Marshal provided meaningful consultation and input on the evaluation ...”<sup>13</sup> Per GPI’s earlier comments and concerns, there is no public record of any consultation or input from CalFire.<sup>14</sup> This constitutes a transparency issue, does not allow the public, stakeholders, or utilities to confirm the statement within WMP Decisions, and does the WMP process a disservice considering CalFIRE employs highly relevant third-party subject matter experts.

GPI reiterates our recommendation to add a filing requirement for either CalFIRE or the OEIS to file a summary of CalFIRE consultation and input, including the format of the consultation (e.g. in person or virtual meeting), date/time, attendees, and a summary of information, consultation, and /or recommendations that were provided.<sup>15</sup> This information should be timely and publicly filed to the appropriate WMP Docket. OEIS may consider adopting a format that is similar to CPUC *Ex Parte* reporting and filing requirements. This public record improvement and

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<sup>13</sup> OEIS Draft Decision on Liberty 2023-2025 WMP, p. 2.

<sup>14</sup> GPI Comments on the Draft Revisions to Docs Related to 2025 WMP Updates, pp. 4-5

<sup>15</sup> GPI Comments on the Draft Revisions to Docs Related to 2025 WMP Updates, pp. 4-5

increased transparency will confirm statements in the WMP Decisions, compliance with Public Utility Code Section 8386.3(a), and will benefit the public, stakeholders, and utilities.

**6. 2026-2028 Base WMP Technical Guidelines: Require Utilities to report (i) annual tree removal data, (ii) percent of VM residues removed from worksites, and (iii) whether/when vegetation management residues are diverted to end-use pathways.**

GPI recommends that the 2026-2028 WMP Technical Guidelines include a new requirement for utilities to report on past and projected annual tree removals. These data were requested by GPI to inform our assessment of Utility VM fuels management approaches and potential impact on fuel buildup around utility distribution system infrastructure. Resulting data request responses were deemed relevant to OEIS Decisions and informed a new ACL.<sup>16,17</sup> These data are also relevant to California and Federal initiatives on woody biomass management and end-use markets.<sup>18,19</sup> Based on the ability for IOUs to report on these data within the three-day Data Request timeline, it is apparent that these data are available, and it is reasonable to include them as a standard WMP requirement given their past and future value in the Plan assessment process.

Wildfire risk management has and will continue to involve tree removals and trimming that produces many tons of woody biomass along utility rights-of-way. Tree mortality rates in California, enhanced vegetation management strategies, and decade-long grid hardening plans suggest that VM work will continue to include the trimming and removal of many hundreds of thousands of trees each year. GPI's assessment of utility VM practices suggests the amount of material removed following VM work may vary significantly between utilities.<sup>20</sup>

GPI recommends that OEIS develop a set of best practices for wood management in HFTD zones that sets a standard for all utilities to benchmark against. It may be appropriate to include CalFIRE input and recommendations as part of the development process. We also recommend requiring utilities to provide estimates on the woody biomass removed from versus left at VM

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<sup>16</sup> TN13540\_20231229T134836\_PGE's\_2023\_WMP\_Decision\_with\_cover\_letter, p. A-53

<sup>17</sup> TN13540\_20231229T134836\_PGE's\_2023\_WMP\_Decision\_with\_cover\_letter, pp. 109-100

<sup>18</sup> Wood Product and Biomass. <https://business.ca.gov/industries/wood-product-and-biomass/#> Accessed on March 29, 2024

<sup>19</sup> Wood and Biomass Utilization. <https://www.fs.usda.gov/detail/r5/communityforests/?cid=fseprd475019> Accessed on March 29, 2024

<sup>20</sup> GPI Comments on the IOU 2023-2025 WMPs, pp. 7-13

worksites, including per customer requests. OEIS should explore the availability of existing utility data on the percent and total amount of woody biomass removed from, versus left at worksites and establish minimum reporting requirements in the WMPs according to current best practices and data availability. Utility estimates and the method of estimation should be documented in the 2026-2028 WMPs. These data and a clearer understanding of utility VM removal practices and rates as well as fuel accumulation awareness will allow OEIS to better monitor fuel accumulation as a potential utility wildfire risk factor and/or as a factor in customer refusals to property access. These recommendations align with ACI PG&E-23-16 regarding updating wood management procedures and benchmarking with other utility wood management programs, and would set universal standards for all utilities to benchmark against that could form the basis of a maturity assessment.

Woody residues from VM activities lie at the nexus of many state objectives and initiatives including wildfire prevention, forest management, renewable energy production, and sustainable economic development.<sup>21</sup> Forest residues produced by utility VM activities are no exception. GPI recommends requiring utilities to report on their woody biomass management practices, including whether and how these residues are routed to or made available for various end uses. This can include customer or market end-uses. Additional information on utility-generated woody biomass end uses will provide a baseline of current practices that can inform future maturation potential in response to developing state initiatives.

**7. 2026-2028 Base WMP Technical Guidelines: Require IOUs to report on planning risk model outputs for the entirety of the distribution and transmission systems and leverage existing public web-based platforms with downloadable data and public access capabilities.**

Risk model outputs and co-location with planned wildfire risk mitigation work is foundational to risk mitigation planning and plan review. At present these data are not a standard reporting requirement for all utility distribution and transmission assets (e.g. circuit segments). Data has been made available thanks to CalAdvocates' data requests, but this approach unnecessarily places the onus on stakeholders to request the data and constitutes a delay in accessing them.<sup>e.g.22</sup>

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<sup>21</sup> Wood Product and Biomass. <https://business.ca.gov/industries/wood-product-and-biomass/#> Accessed

<sup>22</sup> Public Advocates Office Data Request No. CalAdvocates-BVES-2023WMP-05 Proceeding: 2023-2025 Wildfire Mitigation Plans

These formats also require redundant mapping efforts by the WSAB, OEIS, stakeholders, and the public. Accessibility is even more of a challenge for the public, who may not have access to the resources necessary to display (or map) the data in a functional format. GPI advocates for making planning risk model outputs a standard reporting requirement in the 2026-2028 WMP Technical Guidelines.

GPI reiterates our prior recommendations going back as far as 2020 to require utilities to report risk modeling outputs and mitigation plans in digitized maps on publicly accessible platforms.<sup>e.g. 23,24</sup> This is especially reasonable as an IOU requirement. Notably, the WSAB also previously advocated for a data repository in 2021 and identified a need for “visual mapping of priorities of scope” in 2022.<sup>25,26</sup> Our recommendation also aligns with the most recent June 2023 WSAB recommendation 4 that calls for utilities to “develop an interactive webpage to accompany the WMP submission that includes a map showing targeted projects, where known.”<sup>27</sup> GPI recognizes that the OEIS determined that this recommendation was out of scope for the 2025 and 2026-2028 Guidelines, stating:

While this feature would be beneficial for stakeholders and customers to learn about where and when wildfire mitigation projects will occur, it is outside of Energy Safety’s scope for the WMP Guidelines. Energy Safety will consider providing an option for the electrical corporations to provide this information without requiring it.<sup>28</sup>

GPI is concerned that these recommendations will continue to be sidelined for 4 years running. The consequence is that stakeholders, the WSAB, the OEIS, and the public must request granular data each year and independently map the results, thus resulting in a lack of public transparency as well as redundant efforts. IOU wildfire risk mitigation plans informed by risk models have reached a multi-billion-dollar price tag steeped in controversy and complicated by ongoing risk

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<sup>23</sup> GPI Comments on the WMP Roadmap, Filed June 30, 2020 pp. 17-18

<sup>24</sup> GPI Comments on the draft 2023 WMP Guidelines, Filed October 26, 2022, pp. 2-7

<sup>25</sup> Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics, Filed April 18, 2022. p. 16

<sup>26</sup> 2021 WILDFIRE MITIGATION PLAN GUIDELINES, PERFORMANCE METRICS, AND SAFETY CULTURE. June 2, 2020. P. 7

<sup>27</sup> TN12594\_20230622T105014\_WSAB\_2023\_Annual\_PUC\_Section\_8389\_Recommendations, p. 3

<sup>28</sup> OEIS Evaluation of the WSAB’s Recommendations for the WMPs and SCA Process, December 2023, p. 7

modeling adjustments. It would therefore be prudent to float recommendations to the top that improve wildfire risk modeling/planning transparency and the review process. This is especially important for updating reporting methods that may take 1+ years to implement. As GPI highlighted in our 2020 comments, initiating distribution system mapping requirements in the WMP will take time and should therefore be started early to determine reporting requirements and provide a reasonable implementation timeline. Given that the OEIS has already determined that public maps would be beneficial but are out of scope for the 2026-2028 WMP Guidelines, GPI recommends taking up this issue in the recommended WMP Development Track.

Utilities already have distribution system risk and work plan map layers. They are simply not required in a complete and functional reporting format that timely supports external review and public access. IOUs also already have public facing distribution and transmission system maps in the form of Integrated Capacity Analysis (ICA) Maps and associated host platforms with functionality that allows users to download the raw data. ICA maps already include HFTD layers and provide data on distribution circuit PSPS events. The CPUC has also established public access requirements for the IOU's ICA maps. In sum – the IOUs already have the geospatial risk and mitigation plan maps as well as public access mapping platforms with data download capabilities, and PSPS, HFTD, distribution and transmission system data layers. Advancing WMP geospatial data accessibility recommendations and leveraging these existing IOU capabilities will support a slew of forthcoming WMP method development efforts as well as business-as-usual plan review.

## **8. GPI recommends near-term and medium-term actions to advance planning standard transparency and development, respectively.**

### **8.1. 2026-2028 Base WMP Technical Guidelines (Near-term): Require Utilities to identify when and how risk modeling outputs are applied.**

In our opening comments on the 2023-2025 Base WMPs we noted that it was unclear whether PG&E applied CoRE score thresholds or other risk model informed tranche definitions to inform mitigation selection.<sup>29</sup> In contrast, SCE provides model-based risk planning thresholds that

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<sup>29</sup> GPI Comments on the 2023-2025 WMPs, p. 53

define mitigation tranches. SCE also conducts SME reviews of all circuit segment risk scores and adjusts the planning tranche and planned mitigation type based on additional data input. In this example, SCE provides much more transparency as to how it applies planning risk model outputs to inform grid hardening, including, and especially, the most expensive risk mitigations.

For the 2026-2028 WMP Technical Guidelines, GPI recommends requiring that the utilities report their risk threshold/planning standards for each grid hardening mitigation type, including but not limited to undergrounding and covered conductor installation. Utilities should also be required to clearly report on whether/how other data inputs, SME adjustments, and/or ancillary benefit considerations alter the grid hardening plan. GPI recommends establishing more rigid mitigation selection reporting requirements that require each utility to define its basis for mitigation selection, including quantitative planning risk model score thresholds, especially for grid hardening mitigations such as undergrounding, covered conductor, and traditional grid hardening.

Not all utility WMP filings provide the same level of clarity. GPI recommends that the OEIS grade past utility WMP responses to set a baseline for reporting expectations. For example, identify which utility WMP responses are considered exemplary, adequate, or inadequate for various WMP risk modeling and model application reporting sections.

**8.2. WMP Development Track (Mid-term): Formally identify the need to establish a top-down risk tolerance planning standard/threshold and/or any conversion methods necessary to relate existing model output capabilities to an adopted planning standard. Identify the agency under whose jurisdiction this falls.**

The current planning standard is based on preventing all Catastrophic wildfires, which are defined by OEIS as a fire that causes at least one death, damages over 500 structures, or burns over 5,000 acres. This definition has multiple limitations for the purpose of wildfire risk planning, including lack of a probabilistic component and a disconnect with current modeling capabilities.

The current planning standard only includes a consequence metric and does not define a probabilistic component. This is problematic for multiple reasons. For example, the footprint of locations susceptible to experiencing a Catastrophic wildfire may change depending on whether

the probabilistic standard is set to 1-in-10-year conditions versus 1-in-100-year conditions. In an engineering-centric example, if the probabilistic planning standard is for the grid to safely operate under 1-in-50-year versus 1-in-10-year wildfire conditions, then design parameters such as wind tolerance are likely to be substantially different. Probabilistic planning standards may also necessitate modeling approaches other than deterministic models.

The current definition of Catastrophic wildfire defines the total consequence of a real-world fire after it has been contained. This is not directly relatable to existing utility wildfire risk planning model outputs or model capabilities. Fire spread simulations, which predict granular wildfire consequences per input conditions, can only reliably project fire spread out 8 to 24 h.

Technosylva has reported that longer simulations (8+ h) overestimate structure damage (RMWG: Bias discussion). In the real world, of course, conditions and many other variables can change during and after the initial 8 hours. The RMWG has deliberated over the challenges of predicting real-world wildfire consequence due to many variables (e.g. fire suppression response). In an application context, this means utilities are left to span the gap from their model output (e.g. simulated wildfires) to the total consequence of real-world wildfires, and specifically the potential for simulated fires to become Catastrophic wildfires. This is problematic because each utility has developed different risk modeling approaches that require different assumptions and/or methods to span the model-to-real-world consequence gap.

Existing planning standard limitations allow utilities to define their own risk modeling methods and associated risk tolerances in terms of both probabilistic and consequence-based planning standards, as long as they loosely relate it back to preventing Catastrophic wildfires.<sup>e.g.<sup>30</sup></sup> This latitude means utilities can generally adopt and justify a very wide range of planning standards that may affect wildfire risk mitigation plans to the tune of billions of dollars in grid hardening investments.

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<sup>30</sup> GPI Comments on the 2023-2025 WMPs, pp. 54-55

The current planning standard is also unfair for utilities and customers. Utilities may elect to “over-build” their system to prevent *very rare* Catastrophic wildfires with the aim of avoiding litigation exposure due to a technically unattainable planning standard to prevent “all” Catastrophic wildfires. From a customer perspective, this means utilities can effectively off-load the risk of very low-likelihood, high-consequence events and resulting costs (e.g. litigation) onto ratepayers in the form of approved utility wildfire mitigation plan costs.

GPI recommends prioritizing the development of planning standards or thresholds that establish a state-level utility wildfire risk tolerance. The planning standard should include both probabilistic and consequence thresholds. Depending on the final planning standard design it may be necessary to define multiple probabilistic standards. For example, whether probability of ignition and consequence are modeled as independent or dependent terms can determine whether one versus two probabilistic planning standards are necessary. We note that planning risk models that are solely based on CoRE values also inherently include a probabilistic component that depends on the input data and method – meaning a wildfire consequence cannot be estimated without input conditions (e.g. wind, fuel moisture), which intrinsically have a return rate or likelihood of occurrence.

There is precedence for a modular risk standard approach in the Long-term Planning Process and active IRP proceeding, which applies two planning standards: (i) a 1-in-2-year demand forecast (IEPR); and (ii) a 1-day-in-10-year Loss of Load Expectation (LOLE). The 1-in-n-year components are the probabilistic risk tolerances for each of the two consequences: customer demand and wide-spread power outages due to insufficient capacity to meet demand. In this example, the CEC IEPR 1-in-2-year demand forecast establishes a level-setting planning standard across multiple CPUC programs, proceedings, and utility planning standards. GPI provides this as a high-level example of a risk planning standard model that may inform planning standard development for utility wildfire risk.

Establishing an improved state-wide risk planning standard is not a trivial undertaking, will likely take multiple years, and warrants a comprehensive public record. It may be considered that existing utility risk modeling methods and associated planning standards that inform mitigation selection are method-plus-planning standard “proposals” that are actively being



applied. The development process should afford the opportunity to propose adjustments to the existing options and to propose novel risk planning standards (and methods). The final planning standard should also apply to SB884 10-year undergrounding plans. We purposefully do not provide any specific or quantitative planning standard definitions here given the complexity and enormity of the task.

GPI recommends determining the agency whose jurisdiction developing a utility wildfire risk planning standard falls under (e.g. CPUC, OEIS). For any aspects that fall under the jurisdiction of the OEIS, GPI recommends addressing these in a WMP Development Track. Addressing this and related issues in a WMP Development Track is reasonable given that this development issue (i) departs from the business-as-usual WMP cycle filings and review process; (ii) will require more time and a more detailed record than allotted for in the WMP Technical Guideline Update process, and (iii) is applicable to both WMP and SB884 plans.

## **Conclusions**

We respectfully submit these comments and look forward to reviewing future wildfire mitigation plans and related filings. For the reasons stated above, we urge the OEIS to adopt our recommendations herein.

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Respectfully Submitted,



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