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Attachment 2:

June 30, 2020 PCF Comments on Proposed Strategic Roadmap

The Protect Our Communities Foundation
4452 Park Boulevard #202
San Diego, California 92116

June 30, 2020

California Public Utilities Commission
Attn: Caroline Thomas Jacobs, Director
Wildfire Safety Division
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Sent Via Email (wildfiresafetydivision@cpuc.ca.gov)

RE: The Protect Our Communities Foundation's Comments on Proposed Roadmap

Dear California Public Utilities Commission:

The Protect Our Communities Foundation (PCF) provides the following comments on the Draft Reducing Utility-Related Wildfire Risk – Utility Wildfire Mitigation Strategy and Roadmap for the Wildfire Safety Division, and the appendices thereto (Proposed Roadmap). PCF agrees with and has long been advocating for many of the recommendations in the Proposed Roadmap. Below, PCF provides critical context for the recommendations made in the Proposed Roadmap, both legal and factual, that should – and must – inform wildfire risk mitigation now and in the future. When read in this context, the Proposed Roadmap establishes that the utilities and the Commission have failed to meet their statutory obligations to protect Californians and minimize the risks from utility-related wildfires. In an appropriate context in the Commission's wildfire mitigation plan proceedings, and perhaps in the context of any adoption of this Proposed Roadmap, the Commission should set forth the numerous legal requirements to make clear all the statutory mandates that apply to the utilities' wildfire mitigation plans and actions.

I. PCF Agrees WSD Has Encountered "Pain Points" Which Impair Long-Term Wildfire Risk Management Objectives: They Result From The Utilities' Failure to Comply With Legal Requirements and Prevent the Requisite Wildfire Risk Reduction in the Short Term Too.

PCF agrees that the Wildfire Safety Division (WSD) "and California's broader wildfire community, encounter a set of pain points that limit their ability to pursue long-term, utility-related wildfire risk management objectives," which included "Poor data quality and limited availability," "Lack of process standardization across stakeholders," "Need for manual intervention in decision-making processes," "Lack of transparency," and "Limited participation of relevant stakeholders."[1]

[1] Appendix 3, p. 3; *see also* Appendix 1, p. 18 (footnotes omitted) ("Data and analytics to support risk-informed decision-making. A key focus of the WSD is on incorporating data and analytics into their risk management approaches …these efforts have taken place in silos, with each major utility developing

As discussed below, each of the "pain points" identified in the Proposed Roadmap can be traced to legal mandates shirked by the utilities to date. Accordingly, PCF raises the question whether the Commission should adopt the moniker of "pain points" to describe the circumstances that have prevented the utilities from meeting key and critical statutory mandates. Instead of minimizing the real and troubling issues that prevent the Commission and WSD from exercising the necessary oversight, and instead of shifting even further away from compliance requirements, the Commission should more appropriately focus on achieving robust compliance with the myriad statutory safety mandates as the Legislature has directed.

The statutory wildfire risk reduction mandate found in Section 8386(a) requires wildfire risk reduction in the present as well as in the future; and has not changed since the 2016 enactment of SB 1028, the legislation that initially mandated the utilities to prepare and submit wildfire mitigation plans (WMPs) and which first required that "[e]ach electrical corporation shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment."[2] SB 901, enacted in 2018 "to reduce the risk of these wildfires by expanding the requirements" of then existing wildfire mitigation efforts by imposing "additional requirements as part of the electric utility's annual wildfire mitigation plans,"[3] kept SB 1028's wildfire risk reduction mandate intact.[4] SB 901 mandated nineteen items be included in WMPs; replaced an audit required by SB 1028 with a post-approval independent evaluation process;[5] and added the requirement that the Commission "verify that the plan complies with all applicable rules, regulations, and standards, as appropriate."[6] AB 1054 was intended to "create additional safety oversight,"[7] and left intact the statutory risk reduction mandate and post-approval independent evaluation process. AB 1054 amended SB 901 by requiring the establishment of WSD[8] and, among other things, designated WSD as the initial body to "verify that the plan complies with all applicable rules, regulations, and standards" as required by SB 901.[9]

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unique analytical and decisionmaking processes. These examples highlight some of the issues, further detailed in Figure 7 below, that the WSD and utilities still face related to use of data and analytics. These pain points hamper rigorous wildfire risk calculations based on standardized data and methodologies, thereby precluding a shared understanding of wildfire risk and a synchronized response to the threat of wildfires."); Appendix 1, p. 19 (Figure 7).

[2] Sen. Bill No. 1028 (2015-2016 Reg. Sess.) § 1.

[3] Sen. Floor Analysis of Sen. Bill No. 901 (2017-2018 Reg. Sess.) August 31, 2018, p. 13.

[4] Sen. Bill No. 901 (2017-2018 Reg. Sess.) § 38 ("(d) The commission shall accept comments on each plan from the public, other local and state agencies, and interested parties, and verify that the plan complies with all applicable rules, regulations, and standards, as appropriate.") (emphasis added).

[5] Sen. Bill No. 901 (2017-2018 Reg. Sess.) § 38 (Section 8386, subd. (h)).

[6] Sen. Bill No. 901 (2017-2018 Reg. Sess.) § 38, emphasis added; *see also* D.19-05-036, *Guidance Decision on 2019 Wildfire Mitigation Plans Submitted Pursuant to Senate Bill 901* (May 30, 2019), p. 13.

[7] Assem. Floor Analysis of Assem. Bill No. 1054 (2019-2020 Reg. Sess.) July 11, 2019, p. 1.

[8] Pub. Util. Code, § 326, subd. (a) ("By January 1, 2020, the commission shall establish the Wildfire Safety Division within the commission…").

[9] Assem. Bill No. 1054 (2019-2020 Reg. Sess.), § 17.

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As detailed below, the same problems identified by the Proposed Roadmap as impairing long-term risk management objectives also serve to impair risk management objectives existing today; and adhering to the terms of all applicable statutes would address the problems identified in the Proposed Roadmap. Thus, although WSD prefers to focus on the future,[10] ensuring that the utilities comply with all existing applicable statutes and Commission orders should be WSD's top priority right now. Long-term resilience would be the natural result if the Commission and the utilities were to adhere to the letter of the law applicable today. Moreover, the possibility of future improvement should not become an excuse for the utilities' repeated failures to comply with the wildfire mitigation statutes, past Commission decisions, and other legislative mandates – here and now, today, in the present.

II. PCF Agrees That WSD Should Put the Utilities' Role in the Proper Context and That WSD Has Failed to Hold the Utilities Accountable and Remains Unfocused On Ensuring Compliance.

PCF agrees with the conclusions in the Proposed Roadmap relating to WSD's failure to hold the utilities accountable[11] and that WSD should not proceed with new actions or a revised approach until it puts the role of the utilities in the right context.[12] The Proposed Roadmap also appropriately recognizes that WSD "is especially focused on shifting away from a compliance-focused culture."[13] As Figure 12 in Appendix 3 reveals, WSD's analysis compares the WMPs to WSD targets as opposed to legal requirements.[14]

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[10] Cover Letter, p. 1 ("This Proposed Roadmap contains specific objectives, actions, and performance measures to underpin the WMP evaluation process in future years."); Cover Letter, p. 2 ("Revised WMP process, including Guidelines and a Utility Wildfire Mitigation Maturity Model that focuses on understanding utility wildfire risk and program effectiveness to drive continued improvement and rigor over time.").

[11] Appendix 1, p. 16 ("Additionally, the CPUC's Office of the Safety Advocate (OSA), the duties of which are now under other CPUC divisions, has recommended improvements to oversight, which the WSD needs to adopt, and to utilities' safety management, safety culture and utility infrastructure."); Appendix 3, p. 4 ("Historically, the CPUC has conducted its regulatory oversight using manual processes and static reporting products, resulting in oversight that is neither efficient nor sufficiently rigorous. Today, the WSD receives utilities' WMPs in different formats, requiring manual review by staff. The plans are typically made available in only PDF, and both the WSD and the public (which has the right to comment) lack access to interfaces or tools (e.g., GIS-enabled maps) that could make the plans easier to understand.").

[12] Proposed Roadmap, p. 25 ("…before the WSD pursues additional actions or revises their existing approach, they need to more clearly articulate the problem to solve. Without this clarity, utilities may continue to focus on technical solutions or standalone activities. Only by articulating the holistic challenge can the WSD put the role of the utilities in the right context and clearly define the vision and objectives for utility wildfire mitigation. Once the WSD has clarified this, the division then can advance the conversation about adjusting and prioritizing ongoing (or new) efforts…").

[13] Appendix 1, p. 16 ("The WSD is especially focused on shifting utilities from a compliance-focused culture towards a culture centered on public safety.").

[14] Appendix 3, p. 22.

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The Proposed Roadmap does not purport to examine the specific existing legal requirements which WSD shifts away from, nor does it purport to address the impact that compliance with existing mandates could have on public safety or toward achieving the vision statement set forth in the Proposed Roadmap.

PCF disagrees with the suggestion in the cover letter to the Proposed Roadmap which implies that WSD has yet been focused on compliance,[15] and notes that the Proposed Roadmap itself appropriately does not suggest WSD has been focused on compliance at any time.

The cover letter to the Proposed Roadmap also misdescribes WSD's statutory obligations.[16] Among other things, the wildfire mitigation statutes require WSD to "verify that the plan complies with all applicable rules, regulations, and standards, as appropriate."[17] To date, neither the Commission nor WSD have so verified.

PCF similarly disputes any suggestion in the cover letter that WSD to date has ascertained the effectiveness of the utilities' WMPs.[18] Although the Commission repeatedly has acknowledged that effective wildfire risk reduction remains the statutory mandate,[19] both WSD and the Commission have also acknowledged that to date it has not been possible to ascertain the effectiveness of the utilities' WMPs.[20]

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[15] Cover Letter, p. 3 ("Culture and behavior: Develop a safety and risk management culture within utilities that is no longer focused solely on compliance, but proactively drives towards the vision for utility wildfire mitigation.").

[16] Cover Letter, p. 1 (stating that WSD and others "determine whether the actions proposed by each utility are appropriate to address the level of risk identified and whether the plan will put the utility on a path to achieving the CPUC's long-term wildfire risk-reduction goals").

[17] Pub. Util. Code, § 8386, subd. (d).

[18] Cover Letter, p. 1 ("With a long-term vision and specific objectives, the WSD's review of WMPs will have greater effectiveness and account for a fuller set of impacts, tradeoffs, and considerations for the state to support better decision-making.").

[19] D.19-05-036, p. 26; Resolution WSD-002, *Guidance Resolution on 2020 Wildfire Mitigation Plans Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 2.

[20] *See e.g.* D.19-05-036, p. 4-5 ("There are limits on what can be accomplished in this proceeding, as the strict statutory deadlines – three months to approve the Wildfire Mitigation Plans, with very limited exceptions – provide little time to evaluate each Plan's effectiveness. At the same time, this is only the first of what we anticipate will be many Wildfire Mitigation Plan proceedings, so this decision contains many substantive and procedural requirements for future plans based on lessons learned this year); Resolution WSD-002, p. 19-30. The Commission also erroneously delayed evaluation of effectiveness. R.18-10-007, The Protect Our Communities Foundation Application for Rehearing of D.20-03-004 (April 17, 2020); D.20-03-004, *Decision on Community Awareness and Public Outreach Before, During and After a Wildfire, and Explaining Next Steps for Other Phase 2 Issues* (March 12, 2020).

[20] *See e.g.* D.19-05-036, p. 4-5, 27-29; Resolution WSD-002, p. 19-30.

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For example, the Commission raised serious concerns about the utilities' risk assessments and analyses in the decisions on the utilities' 2019 WMPs,[21] describing the utilities' risk assessments in their 2019 WMPs as a "black box with insufficient description of the supporting information and rational for proposed programs" and noting that a "'trust us, we know what we are doing' approach to risk assessment is not appropriate given recent wildfire activity."[22] This year, the Commission and WSD determined, among other things, that the utilities' 2020 WMPs continue to fail to assess and analyze risk properly.[23] As discussed below, the Commission's determinations with respect to the utilities' risk assessment failures – both in 2019 and now again in 2020 – necessarily means that the utilities continue to violate Section 8386's threshold risk reduction mandate as well its specific provisions regarding the required elements necessary for inclusion in WMPs.[24]

III. PCF Agrees the Utilities' Risk Assessments Fail to Meet Rudimentary Risk Assessment Principles; They Also Fail to Meet Applicable Legal Mandates.

The utilities are already required to be at level 6 on the risk management maturity model chart set forth in Figure 6 of Appendix 1 to the Proposed Roadmap,[25] because the wildfire mitigation statutes require the utilities "to include all relevant wildfire risk and risk mitigation information" required by the Commission's Safety Model Assessment Proceeding (S-MAP), the Risk Assessment and Mitigation Phase (RAMP) filings in the utilities WMPs.[26] Below, PCF briefly describes the S-MAP and RAMP decisions and explains how the concerns raised in the Proposed Roadmap reveal the utilities fail include the information required by the S-MAP and RAMP decisions.

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[21] D.19-05-036, p. 28-29; D.19-05-038, *Decision on Southern California Edison Company's 2019 Wildfire Mitigation Plan Pursuant to Senate Bill 901* (May 30, 2019), p. 22-23, 52-53 (OP 6); D.19-05-039, *Decision on San Diego Gas & Electric Company's 2019 Wildfire Mitigation Plan Pursuant to Senate Bill 901* (May 30, 2019), p. 23-24, p. 31 (OP 12); D.19-05-037, *Decision on Pacific Gas and Electric Company's 2019 Wildfire Mitigation Plan Pursuant to Senate Bill 901* (May 30, 2019), p. 56 (OP 27), p. 60 (OP 8).

[22] D.19-05-036, p. 29, fn. 42.

[23] Resolution WSD-002, p. 19-30; Resolution WSD-003, *Resolution Ratifying Action of the Wildfire Safety Division on Pacific Gas & Electric Company's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 23-28, 33-34, 36, 42, 45-46, 55; Resolution WSD-004, *Resolution Ratifying Action of the Wildfire Safety Division on Southern California Edison Company's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 10-12, 18, 22-23, 25-29, 34-36, 38-40, 43, 46, 48-49; Resolution WSD-005, *Resolution Ratifying Action of the Wildfire Safety Division on San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 11-12, 23-25, 33, 37-38, 43-44, 46, 49.

[24] *See e.g.* Pub. Util. Code, § 8386, subd. (a), (c); D.19-05-036, Appendix A, p. A2.

[25] Appendix 1, p. 18.

[26] Pub. Util. Code, § 8386, subd. (c)(11); D.19-05-036, p. 28-29.

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A. The S-MAP and RAMP Decisions Already Require the Information That the Proposed Roadmap Correctly Notes Remain Lacking.

In R.13-11-006, the Commission adopted "a risk-based decision-making framework, consisting of the Safety Model Assessment Proceeding [S-MAP], the Risk Assessment and Mitigation Phase [RAMP] proceeding, and the filing of annual verification reports consisting of the Risk Mitigation Accountability Report and the Risk Spending Accountability Report."[27] In proceeding R.13-11-006, the Commission issued D.14-12-025 which required the utilities to file comprehensive[28] RAMP submissions that contained the following information:

- The utility's prioritization of the risks it believes it is facing and a description of the methodology used to determine these risks…
- A description of the controls currently in place, as well as the "baseline" costs associated with the current controls.
- The utility's prioritization of risk mitigation alternatives, in light of estimated mitigation costs in relation to risk mitigation benefits (Risk Mitigated to Cost Ratio).
- The utility's risk mitigation plan, including an explanation of how the plan takes into account: Utility financial constraints; Execution Feasibility; Affordability Impacts; Any other constraints identified by the utility.
- For comparison purposes, at least two other alternative mitigation plans the utility considered and an explanation of why the utility views these plans as inferior to the proposed plan.[29]

In addition to requiring RAMP reports, D.14-12-025 required at least two Safety Model Assessment Proceedings (S-MAP) for the large energy utilities, so that the Commission and the parties could "explore and analyze each energy utility's approach to prioritize the risk to safety associated with each utility's system and services, and the tools or activities that the energy utilities use to manage, mitigate, and minimize those safety risks."[30]

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[27] D.14-12-025, *Decision Incorporating a Risk-Based Decision-Making Framework into the Rate Case Plan and Modifying Appendix A of Decision 07-07-004* (December 4, 2014), p. 54-55 (OP 1).
[28] D.14-12-025 at 39-40 (Limiting the utility's RAMP submission to just 10 asset categories may prevent the Commission and interested parties from having a comprehensive view of the utilities potential safety risks, and its plans for addressing those risks. Since the RAMP will provide the first opportunity for parties to see how the utility prioritizes safety in terms of its assets and operations, the RAMP should not be limited to a maximum of 10 asset categories. Accordingly, the utility's RAMP submission shall include all of its risk assessments and mitigation plans.").
[29] D.14-12-025, p. 32.
[30] D.14-12-025, p. 25, 27.

D.16-08-018, the first decision the Commission issued in the first S-MAP proceeding, highlighted the importance of a cost effectiveness analysis and clarified that calculating risk reduction per dollar "is required by D.14-12-025 and is necessary information for balancing safety with reasonable rates and holding utilities accountable for safety spending," found that "[p]rioritizing based on cost-effectiveness measures is an important improvement to rate cases and an important step to optimizing portfolios," concluded that the "utilities' RAMP filings should include calculations of risk reduction and a ranking of mitigations based on risk reduction per dollar spent," and ordered that RAMP filings "shall explicitly include calculation of risk reduction and a ranking of mitigations based on risk reduction per dollar spent."[31] D.16-08-018 also concluded that "[p]rioritizing the reduction of safety risks should be geared towards safety risk, and should not include financial interests" and that the utilities "should remove shareholders' financial interests from consideration in their risk models and decision frameworks. . . .,"[32] and directed the utilities "to remove shareholders' financial interests from consideration in their risk models and decision frameworks used to support case expenditure proposals, especially at the operational level, unless the utility can make a good case for an exception in its" RAMP filing.[33]

Later in the S-MAP proceeding, in D.18-12-014, the Commission adopted a settlement agreement between all of the large utilities, the Public Advocates Office, and several intervenors, which expanded on the requirements of D.14-12-025 and D.16-08-018.[34] Among other things, D.18-12-014 mandates that (1) the utilities "clearly and transparently explain its rational for selecting mitigations for each risk and for its selection of its overall portfolio of mitigations;" (2) that "[i]nputs and computations…should be clearly stated and defined" and "the sources of inputs should be clearly specified," (3) that the utilities "use utility specific data" in identifying potential consequences of and frequency of a risk event; (4) that the utilities measure risk reduction provided by a risk mitigation; and (5) that the utilities calculate risk spend efficiency (RSE) "by dividing the mitigation risk reduction benefit by the mitigation cost estimate."[35] As the Commission has explained, the settlement agreement approved in D.18-12-014 "provided a more robust and stronger version of the ten recommended RAMP components than was first introduced in D.16-08-018," including the requirement "that risk spend efficiency [RSE] calculations for risk mitigations are independent of RAMP risk selection."[36]

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[31] D.16-08-018, *Interim Decision Adopting the Multi-Attribute Approach (Or Utility Equivalent Features) and Directing Utilities to Take Steps Toward a More Uniform Risk Management Framework* (August 18, 2016), p. 187 (Finding of Fact 81, 82), p. 192 (Conclusion of Law 30), p. 196 (OP 8).
[32] D.16-08-018, p. 192-193 (Conclusion of Law 36, 37).
[33] D.16-08-018, p. 195-196 (OP 7).
[34] D.18-12-014, *Phase Two Decision Adopting Safety Model Assessment Proceedings (S-MAP) Settlement Agreement with Modifications* (December 13, 2018), Attachment A, p. A-3 (defining Settling Parties).
[35] D.18-12-014, Attachment A, p. A-8, A-12, A-13, A-14, A-17.
[36] I.19-11-010/011, Order Instituting Investigation into the Risk Assessment and Mitigation Phase Submission of San Diego Gas & Electric Company (November 7, 2019), p. 3-4.

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Although a meaningful cost effectiveness analysis and elimination of shareholder interests in risk-based decision-making has been required by the Commission for many years, the Commission described the utilities' risk assessments that were contained in their 2019 WMPs as a "black box."[37] The Commission also acknowledged that Section 8386 requires the utilities "to include all relevant wildfire risk and risk mitigation information" required by the Commission's S-MAP and RAMP decisions, including the Risk-Spend Efficiency analysis required by D.18-12-014 and ordered the utilities to comply with these mandates in their 2020 WMPs.[38]

AB 1054, which became effective after the Commission's decisions on the utilities' 2019 WMPs, did not change the requirement that the utilities' WMPs must adhere to the S-MAP and RAMP decisions.[39] Thus, the utilities remain statutorily-required to demonstrate compliance with the Commission's safety orders in D.14-12-025, D.16-08-018, and with D.18-12-014, each of which require a cost-effectiveness analysis in order properly to assess risk and prioritize risk reduction measures.[40] Nevertheless, WSD and the Commission correctly concluded that the utilities in their 2020 WMPs continue to fail to provide the requisite analysis of risk reduction per dollar spent.[41]

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[37] D.19-05-036, p. 29, fn. 42 ("…that risk assessment is often a black box with insufficient description of the supporting information and rationale for proposed programs. Future filings should provide documentation of the risk analysis used to justify the proposals. A "trust us, we know what we are doing" approach to risk assessment is not appropriate given recent wildfire activity.").

[38] D.19-05-036, p. 28-29 ("The WMP statute refers to the Commission's safety-oriented processes carried out during GRCs.[] We interpret the inclusion of those processes to reflect a desire to ensure the safety work in GRCs is incorporated into WMPs. We agree that both processes are important to a consideration of the adequacy of utility safety efforts. Our recent decision in the S-MAP/GRC context adopted an approach that prioritizes actions based on their 'Risk-Spend Efficiency.' The approach uses a tool called Multi-Attribute Value Function (MAVF) that provides a single value to measure the combined effects of each mitigation measure on a certain risk event. The process involves performing risk assessments and ranking risks using safety, reliability, and other attributes. This approach provides a means to compare the programs against each other for effectiveness, especially when multiple overlapping programs are proposed for the same assets and intended to mitigate the same risk event (i.e., increased vegetation clearing coupled with installing covered conductor and expanded de-energization practices). Including such analysis in the WMPs would provide the Commission a transparent and effective way to balance overlapping programs in the WMP and assess which programs are needed and effective. As stated above, the statute requires 'all relevant wildfire risk and risk mitigation information that is part of the Safety Model Assessment Proceeding and Risk Assessment Mitigation Phase filings.' This quantitative information is relevant, and the process of conducting these analyses may allow stakeholders to better understand the cost effectiveness of proposed mitigations.").

[39] Pub. Util. Code, § 8386, subd. (c) (11), (12), (17).

[40] *See e.g.* D.19-05-036, p. 28-29; D.16-08-018, p. 187; D.18-12-014, Attachment A, p. A-13.

[41] Resolution WSD-002, p. 20 ("Although RSE concepts have been considered for several years through Commission GRCs, utilities still display unrefined and limited abilities to produce such information. Considering that utilities propose to spend billions of dollars on WMP initiatives, not having quantifiable information on how those initiatives reduce utility ignition risk relative to their cost severely limits the WSD's ability to evaluate the efficacy of such initiatives and each utility's portfolio of initiatives, as outlined in 2020 WMPs.").

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WSD attempts to address the utilities' many risk assessment failures by requiring remedial correction plans and quarterly reports as a condition of approval.[42] Thus, it remains an open question whether WSD will enable the utilities to continue to shirk their statutory and Commission-ordered obligations.[43] Whatever risk-related recommendations the Proposed Roadmap makes, compliance with the Commission's RAMP and S-MAP decisions, and thus with Section 8386, should be the top priority.

B. PCF Agrees that the Utilities' WMP Are Overly Capital-Intensive and Fail to Address Cost-Effectiveness: The Utilities' WMPs Thus Fail to Comply with Section 8386 and D.14-12-025 and D.16-08-018.

The Proposed Roadmap accurately recognizes that the utilities maintain a financial incentive to focus on capital expenditures, and that the WMPs reflect the utilities' financial incentives.[44] The Proposed Roadmap also appropriately concludes that the utilities should, but have not appropriately addressed cost-effectiveness.[45]

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[42] *See e.g.* Resolution WSD-002, p. 19-30; Resolution WSD-002, Appendix A, p. A1-A3.

[43] *See e.g.* D.19-05-039, p. 30 (OP 12) ("San Diego Gas & Electric's 2020 Wildfire Mitigation Plan shall use the quantitative risk assessment framework adopted in Decision 18-12-014 in the Safety Model Assessment Proceeding to evaluate and compare the cost effectiveness of each of the mitigations that were under consideration in developing the Wildfire Mitigation Plan. The Wildfire Mitigation Plan shall provide the risk spend efficiency results of the quantitative risk analysis and include an explanation of the Multi-Attribute Variable Framework used and how it was constructed.").

[44] Appendix 1, p. 23-24 ("Implicit financial incentives also influence resource allocation decisions by utilities. In California, investor-owned utilities are generally incentivized to make purchases of capital equipment over operational investments, assuming they earn a set rate of return on their capital investments through cost recovery mechanisms in the general rate case (GRC). Furthermore, the process of approving and monitoring utility wildfire mitigation investments falls to different stakeholders within the CPUC from those who approve and monitor the utilities' activities.47 This complicates the assessment of utility wildfire mitigation resource efficiency, compliance, and enforcement."); Appendix 1, p. 20 ("At this time, many widely-discussed methods of reducing utility-related wildfire risk, such as undergrounding utility lines or installing covered conductors, are extremely capital-intensive relative to their ability to reduce statewide wildfire risk. New technologies promise more effective and cost-effective risk reduction, but utilities will need to validate their safety and effect on reliability.")

[45] Appendix 2, p. 9 ("To set an affordability goal however, more than only ratepayer costs must be considered. Many investments today are still needed to both prepare for upcoming wildfire seasons and to support longer-term resiliency. Thus, this affordability objective focuses on cost-effectiveness and an assessment of whether utility wildfire mitigation spend is being done in an intelligent, efficient way. When developing and executing their plans, utilities must consider the most reasonable ways to mitigate each driver of risk before selecting initiatives to pursue based on magnitude of risk reduction, cost, and other important factors. The WSD should also consider the efficiency of submitted Wildfire Mitigation Plans during their approval process, although the WSD does not assess appropriate budget size in its WMP evaluation."); Appendix 1, p. 22 ("The WSD must also consider the affordability and resource efficiency of utilities' wildfire mitigation plans. In 2019, the three large IOUs planned to invest a combined $3.9 billion to mitigate risk of wildfire ignition from their systems, focusing on investments in system hardening, vegetation management, enhanced inspection programs, and situational awareness, as

As described above, S-MAP decision D.16-08-018 ordered that RAMP filings "shall explicitly include calculation of risk reduction and a ranking of mitigations based on risk reduction per dollar spent"[46] and mandated that the utilities "remove shareholders' financial interests from consideration in their risk models and decision frameworks used to support case expenditure proposals, especially at the operational level, unless the utility can make a good case for an exception in its" RAMP filing.[47]

Thus, while PCF agrees that "[f]inancial incentives to reduce wildfire risk from utilities" are necessary,[48] focusing on existing legal mandates must be the top priority and will achieve the same result.

C. PCF Agrees the WMPs Are Not Guided By Data and Science, Overly Rely Upon Subject Matter Experts, and Lack Transparency: the Utilities' WMPs Thus Fail to Comply with Section 8386 and D.18-12-014.

PCF agrees that risk-informed,[49] science-based, and data-supported[50] decisions should be guiding wildfire mitigation activities,[51] and that reliance on subject matter experts (SMEs) should be limited.[52] PCF also agrees that utility data and modeling should be transparent[53] and should allow for information sharing.[54]

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outlined below in Figure 8. Utilities' plans to construct a more resilient system are phased over multiple years to account for planning, permitting, and workforce constraints as utilities execute the backlog of activities that must occur after the disastrous 2017 and 2018 wildfire years. Overall, these investments and risk reduction actions highlight the potential costs, as well as the challenges and tradeoffs, of utility wildfire mitigation efforts.").

[46] D.16-08-018, p. 187 (Finding of Fact 81, 82), p. 192 (Conclusion of Law 30), p. 196 (OP 8).

[47] D.16-08-018, p. 195-196 (OP 7).

[48] Appendix 1, p. 26 (explaining that in other jurisdictions, "Should a utility cause more ignitions than the target, the state reduces the rate they can charge customers in the coming year").

[49] Cover Letter, p. 3 (prioritizing a "Detailed Risk Assessment: Modeling and analysis of wildfire risk from utility assets to communities and natural resources to be able to support the utilities' wildfire mitigation resource allocation decisions…").

[50] Cover Letter, p. 3 (recommending "Applied science, technology, and data: Leverage advancements in science, technology, and data and analytics that support more informed decision-making and create a shared understanding of utility-related wildfire risk.")

[51] Cover Letter, p. 2.

[52] Appendix 3, p. 3 ("Decisions require manual intervention. Many of the decisions are ultimately made by subject matter experts, and do not follow objective criteria.").

[53] Appendix 3, p. 3 ("Lack of transparency. WSD has little visibility into the diagnostics and decision-making carried out by IOUs, as well as the data they utilize, as they prioritize their efforts.").

[54] Cover Letter, p. 3 ("Data and Analytics Strategy: Strategy to enable information sharing across stakeholders to support processes such as the Wildfire Mitigation Plan in the near-term, and drive analytics in the longer-term that will support prevention, response, and recovery activities.").

Risk-informed, data-supported, transparent decision-making is already required by Section 8386 and the Commission's S-MAP and RAMP decisions. As mentioned above, S-MAP decision D.18-12-014 requires the utilities to "clearly and transparently explain its rational for selecting mitigations for each risk and for its selection of its overall portfolio of mitigations" and "use utility specific data" in identifying potential consequences of and frequency of a risk event; and that the utilities measure risk reduction provided by a risk mitigation.[55] Additionally, D.18-12-014 limits reliance on SMEs to situations where utility-specific data is unavailable; and, when SMEs must be used, requires the utilities to describe the process, assumptions, and information utilized.[56] The utilities' failure to comply with the S-MAP decisions – and the terms of the settlement to which they agreed - should be the top priority and in no way glossed over by any additional requirements imposed going forward.

Moreover, any additional suggested "collaboration" between WSD and the utilities[57] raises the concern that ratepayers will be paying twice – for WSD's efforts and for the utilities' efforts as well. California law requires the utilities to justify their rates; and ratepayers must not be charged for unjustified expenses.[58] To avoid double charges to the citizenry - and because the utilities have repeatedly failed to provide the information that WSD and others need to make their jobs possible, the utilities' shareholders should be responsible for the costs of such collaboration.

IV. PCF Agrees the Utilities Have Been Making Unilateral Decisions: the Utilities and the Commission Are Legally Required to Consider Reasonable Alternatives in the Public Interest.

PCF agrees that stakeholder participation has been limited,[59] that the utilities should incorporate good ideas generated by non-utility representatives,[60] with respect to the importance of ascertaining the truth,[61] that a need to break down silos persists,[62] and that WSD must hold the utilities accountable. [63]

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[55] D.18-12-014, Attachment A, p. A-8, A-14, A-17, A-18.
[56] D.18-12-014, Attachment A, p. A-8, A-17, A-18.
[57] Appendix 1, p. 12.
[58] Pub. Util. Code, §§ 451, 454.
[59] Appendix 3, p. 5 ("Limited stakeholder participation. Utilities develop their plans mostly in isolation, with limited collaboration within IOUs and with other stakeholders.").
[60] Appendix 1, p. 4 ("As the WSD and the utilities learn from the implementation of the initial WMPs, they can also look to utility wildfire mitigation practices from other geographies. While no one method, tool, or innovation is a 'silver bullet', five areas have interesting or differing practices to consider….").
[61] Appendix 1, p. 26 (commending Victoria, Australia for implementing "Data and analytics to establish a single source of truth").
[62] Cover Letter, p. 2.
[63] Appendix 1, p. 14 (commending Australia's Bushfire Committees because "Utilities are held accountable for their part of mitigation plans (e.g., vegetation management), as well as in incident response").

PCF has cautioned against overreliance on the utilities' self-reporting to gauge mitigation efforts,[64] and has long advocated for evidentiary hearings and the need to consider alternatives to the utilities' proposed wildfire mitigation efforts.[65] Whatever additional recommendations are ultimately adopted to achieve the ends which the Proposed Roadmap and PCF have proposed, the Commission will remain legally required to consider the alternatives presented by the stakeholders throughout the process.[66]

Additionally, the Proposed Roadmap highlights another area where adherence to already existing legal mandates would address the concerns presented, when it astutely provides the utilities' vegetation management practices as an example of the problematic "siloed utility approach."[67] If the Commission simply adhered to longstanding legal requirements set forth in the California Environmental Quality Act (CEQA), the cumulative environmental impacts of the utilities' vegetation practices would be considered holistically, the Commission would be required meaningfully to engage the public and stakeholders, and the Commission and the utilities would be held accountable for the adverse environmental impacts for which they are responsible.[68] CEQA requires that the public be informed of the environmental consequences of projects before they are undertaken, it obliges public agencies to respond to public comments, and it requires science and fact-based decision-making, consideration of alternatives, and implementation of feasible mitigation.[69]

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[64] Appendix 1, p. 16 ("Specifically, the 2020 WMP guideline updates introduced a new tool, the Utility Maturity Model, to gain insight into utilities plans to continue to improve their utility-related wildfire mitigation efforts over time."); R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 9.

[65] *See e.g.* R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 12-14; R.18-10-007, Motion for Evidentiary Hearings by The Protect Our Communities Foundation (November 6, 2019), p. 3.

[66] *See e.g. City of Los Angeles v. Public Utilities Com.* (1975) 15 Cal.3d 680, 694 ("the commission should consider available alternatives").

[67] Appendix 1, p. 13 ("One example of the siloed utility approach to coordination is in their vegetation management plans. Today, utilities are focused on executing the vegetation management adjacent to their infrastructure to maintain compliance with clearance requirements in GO 95 and to address grow-in or fall-in risk to utility equipment. However, utility vegetation management programs are not often coordinated with overall fuel management efforts led by local land managers like the California Department of Forestry and Fire Protection (CAL FIRE), the United States Forest Service (USFS), and/or local communities. While CAL FIRE and USFS coordinate projects that border each other, in certain situations, lack of utility collaboration can result in missed opportunities for these stakeholders to leverage vegetation management efforts to support creation of fire breaks and other fuel treatments for at-risk communities. Land managers also highlighted the absence of a combined record of utility, CAL FIRE, USFS, and other fuel management activity as a knowledge gap that enables fragmented and uncoordinated activity.").

[68] *Laurel Heights Improvement Assn. v. Regents of University of Cal.* (1988) 47 Cal.3d 376, 392, 394.

[69] *See e.g.* Cal. Code Regs., tit. 14, § 15064, subd. (b)(1); Cal. Code Regs., tit. 14, § 15126.6; Cal. Code Regs., tit. 14, § 15088; *No Oil, Inc. v. Los Angeles* (1974) 13 Cal.3d 68, 81.

Instead of complying with CEQA,[70] however, WSD went so far as to repeat without investigating SDG&E's false claim that an indication exists "that a 25-foot post-trim clearance has had a positive impact on wildfire risk."[71] No such indication in fact exists, and SDG&E should have no need to clear vegetation beyond its existing easement rights.[72] In any event, before authorizing any such vegetation practices, the Commission must first ascertain the scope of the utilities' existing easements so as to avoid exceed the scope of its authority.[73]

V. CONCLUSION

PCF requests that these comments be considered and incorporated into California's wildfire mitigation planning efforts – now and in the future. PCF submits that contextualizing the Proposed Roadmap within existing legal requirements will most efficiently result in the wildfire risk reduction vision shared by the Legislature, past Commission decisions, the Proposed Roadmap, PCF, and the public at large.

Sincerely,

/s/ Malinda Dickenson

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The Protect Our Communities Foundation
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cc. Service List for R.18-10-007

[70] *See* The Protect Our Communities Foundation Comments on the 2020 Wildfire Mitigation Plans Pursuant to Resolution WSD-001 (April 7, 2020), p. 24-25 (no CEQA exemption exists).
[71] *See* Resolution WSD-005, p. 52.
[72] Real property law instructs that "an easement carries with it certain secondary easements essential to its enjoyment, such as the right to make repairs, renewals, and replacements," and that the right to make repairs and replacements are limited by the requirement that both the easement owner and the land owner must act reasonably. *Haley v. Los Angeles County Flood Control Dist.* (1959) 172 Cal.App.2d 285, 290; *Dolnikov v. Ekizian* (2013) 222 Cal.App.4th 419, 429-430 ("Incidental or secondary easement rights are limited by a rule of reason. 'The rights and duties between the owner of an easement and the owner of the servient tenement…are correlative. Each is required to respect the rights of the other. Neither party can conduct activities…that unreasonably interfere with the other party's use of the property.')
[73] *Camp Meeker Water System, Inc. v. Public Utilities Com.* (1990) 51 Cal.3d 845, 861 (recognizing the Commission's "power to construe, for purposes of exercising its regulatory and ratemaking authority, the existing rights of a regulated utility"); *Richfield Oil Corp. v. Public Utilities Com.* (1960) 54 Cal.2d 419, 430 (dedication is "an implicit limitation" to public utility regulation); *Greyhound Lines, Inc. v. P.U.C.* (1968) 68 Cal.2d 406, 411 ("It was early decided and remains the law that the perimeter of commission authority to order service modifications is staked out by the limits of a utility's dedication or devotion of its property to public use. The power to order "additions, extensions, repairs, improvements" within the scope of dedication is extensive; without the scope of dedication, the commission's power is ineffectual."); *Cerf v. Peleging* (1892) 94 Cal.131, 136 (one cannot dedicate the land of another).

Attachment 3:

August 10, 2020 PCF Comments on SDG&E Remedial Compliance Plan

The Protect Our Communities Foundation
4452 Park Boulevard #309
San Diego, California 92116

August 10, 2020

California Public Utilities Commission
Attn: Caroline Thomas Jacobs, Director
Wildfire Safety Division
505 Van Ness Ave., 4th Floor
San Francisco, CA 94102

Sent Via Email (wildfiresafetydivision@cpuc.ca.gov)

Re: The Protect Our Communities Foundation's Comments on San Diego Gas & Electric Company's Remedial Compliance Plan

To Whom It May Concern:

The Protect Our Communities Foundation (PCF) provides these comments on San Diego Gas & Electric Company's (SDG&E) Remedial Compliance Plan (RCP). As set forth below, the RCP SDG&E submitted fails to address the Commission-identified problems with SDG&E's 2020 WMP and reflects SDG&E's failure to make a good faith effort to meet the conditions of approval of its WMP. SDG&E's RCP violates the Commission's direct orders and should result in the rejection of SDG&E's 2020 WMP. SDG&E continues its recalcitrant stance, as its RCP clearly details SDG&E's plan to continue its deficient approach to both risk assessment and vegetation management rather than remedy the deficiencies that the Commission ordered SDG&E to remedy. In addition to failing to present the information the Commission ordered SDG&E to provide which was missing from its 2019 WMP and its 2020 WMP, SDG&E's RCP admits that SDG&E has violated the Commission's direct orders regarding vegetation management.

I. THE RCP FAILS TO REMEDY THE DEFICIENCIES THE COMMISSION HAS REPEATEDLY IDENTIFIED AND ORDERED SDG&E TO ADDRESS.

In Resolutions WSD-002 and WSD-005, the Commission determined SDG&E's 2020 WMP remains substantively and significantly deficient. The Commission decided that unless SDG&E remedies the numerous identified deficiencies, SDG&E's WMP cannot be considered to be "deemed in compliance with Public Utilities Code Section 8386."[1]

[1] Resolution WSD-002, *Guidance Resolution on 2020 Wildfire Mitigation Plans Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 44-45 (OP 6) ("…San Diego Gas & Electric Company… shall comply with the Guidance Conditions set forth in Appendix A to this Resolution in order for its Wildfire Mitigation Plan to be deemed in compliance with Public Utilities Code Section 8386 and the Wildfire Safety Division's Wildfire Mitigation Plan Guidelines...").

The Commission identified three classes of deficiencies; and, depending on the deficiency, ordered the utilities to remedy those deficiencies by submitting an RCP within 45 days, quarterly reports starting in 90 days, or by providing additional detail and information in its 2021 WMP update.[2]

The Commission issued Resolution WSD-002, a Guidance Resolution applicable to all of the utilities,[3] as well as individual resolutions on each utility's 2020 WMP which identified additional deficiencies. All of the deficiencies in both the Guidance Resolution and in the utility-specific resolutions must be remedied before any utility's WMP can be deemed approved.[4] These comments, however, address only SDG&E's RCP - which was required to address the deficiencies identified by the Commission as Class A deficiencies.[5]

The Commission described Class A deficiencies as "of the highest concern."[6] To resolve identified Class A deficiencies, an "RCP must present all missing information and/or articulate the electrical corporation's plan, including proposed timeline, to bring the electrical corporation's WMP into compliance."[7]

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[2] Resolution WSD-002, p. 45-46 (OP 7, 8, 9) ("For Class A deficiencies, …San Diego Gas & Electric Company…must submit Remedial Compliance Plans (RCP) to the Director of the Wildfire Safety Division within 45 days of Commission ratification of the Wildfire Mitigation Plan Resolutions. An RCP must present all missing information and/or articulate the electrical corporation's plan, including proposed timeline, to bring the electrical corporation's WMP into compliance…For Class B deficiencies, …San Diego Gas & Electric Company…must submit quarterly reports to the Director of the Wildfire Safety Division. Information requested in the quarterly reports shall be submitted either one time in the first quarterly report or on an ongoing basis as specified by each condition…The first quarterly report must be submitted 90 days after the Commission ratifies the Wildfire Mitigation Plan Resolutions, and every three months thereafter. In some cases, individual Resolutions impose other additional reporting requirements, and the Resolutions contain relevant detail for those reports with which named electrical corporations must comply…For Class C deficiencies, …San Diego Gas & Electric Company…must submit additional detail and information or otherwise come into compliance in its 2021 annual Wildfire Mitigation Plan update.").

[3] The exception is Horizon West Transmission, LLC and Trans Bay Cable, LLC, to which these comments do not refer. *See* Resolution WSD-002, p. 19.

[4] *See e.g.* Resolution WSD-005, *Resolution Ratifying Action of the Wildfire Safety Division on San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386* (June 11, 2020), p. 53-54 (OP 1, 2) ("Ratification of the Wildfire Safety Division's approval of San Diego Gas & Electric Company's Wildfire Mitigation Plan is subject to conditions set forth in Appendix A." "The Wildfire Safety Division's approval of San Diego Gas & Electric Company's (SDG&E) 2020 Wildfire Mitigation Plan, conditioned upon SDG&E's compliance with the conditions listed in Appendix A, is hereby ratified.")

[5] *Ibid.*; Resolution WSD-002, p. 17, 45-46.

[6] Resolution WSD-002, p. 17.

[7] Resolution WSD-002, p. 17-18.

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SDG&E's 2020 WMP contains two Class A deficiencies: (1) Guidance-3, labeled "Lack of risk modeling to inform decision-making,"[8] and (2) SDGE-13, labeled "Lack of risk reduction or other supporting data for increased time-of-trim clearances."[9] Despite the seriousness of the failures described in Guidance-3 and SDGE-13, SDG&E spends less than three pages purporting to address Guidance-3 and less than one page purporting to address SDGE-13.

As set forth below, SDG&E fails to comply with the Commission's mandate to provide the information missing from its 2019 WMP and its 2020 WMP; and admits that it has violated the Commission's direct orders. Accordingly, pursuant to the terms and conditions of approval issued in Resolutions WSD-002 and WSD-005, SDG&E's 2020 WMP cannot be approved.[10]

II. SDG&E FAILED TO ADDRESS THE RISK-RELATED DEFICIENCIES THE COMMISSION HAS REPEATEDLY IDENTIFIED AND ORDERED SDG&E TO COMPLY WITH.

Guidance-3 calls out the utilities' failure to include sufficient detail in their 2020 WMPs to demonstrate how their risk modeling informs decision-making.[11] In order to remedy the utilities' fundamental "[f]ailure to analyze each WMP initiative to determine whether it is an effective use of resources,"[12] the Commission required each utility to demonstrate in an RCP how risk assessment will be applied to each proposed activity in the utility's WMP:

> Each electrical corporation shall submit in its remedial correction plan (RCP) the following:
> i. how it intends to apply risk modeling and risk assessment techniques to each initiative in its WMP, with an emphasis on much more targeted use of asset management, vegetation management, grid hardening and PSPS based on wildfire risk modeling outputs;

[8] Resolution WSD-002 Appendix A, p. A3.
[9] Resolution WSD-005 Appendix A, p. A9.
[10] Resolution WSD-002, p. 17.
[11] Resolution WSD-002 Appendix A, p. A3 (Deficiency: "Electrical corporations do not provide sufficient detail in their 2020 WMPs to demonstrate how they are leveraging risk models to target the highest risk portions of the grid. While most utilities indicate current progress and work on developing models to estimate risk across their service territories, there is a lack of focus on how these models can be used in practice to prioritize initiatives to address specific ignition drivers and geographies. Specifically, utilities fail to outline in detail how they determine where to prioritize to improve asset management or determine portions of circuits that would benefit the most from hardening and vegetation management. By continuing to improve wildfire risk modeling and basing its wildfire mitigations on its wildfire risk modeling outputs, electrical corporations can potentially achieve a greater level of risk reduction with the same resources.").
[12] Resolution WSD-002, p. 19.

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ii. identify all wildfire risk analyses it currently performs (including probability and consequence modeling) to determine which mitigation is targeted to circuits and assets where initiatives will provide the greatest benefit to wildfire risk reduction;
iii. a timeline to leverage its risk modeling outputs to prioritize and target initiatives and set PSPS thresholds, including at least asset management, grid operations, vegetation management, and system hardening initiatives;
iv. how it intends to incorporate future improvements in risk modeling into initiative prioritization and targeting processes; and
v. how it intends to adapt its approach based on learnings going forward.[13]

Thus, SDG&E's RCP must remedy SDG&E's fundamental failure to cost-effectively maximize wildfire risk reduction as required by the Commission's risk-based decision-making framework which the California Legislature expressly incorporated into the wildfire mitigation statutes.[14] However, SDG&E's RCP fails to provide the information and analysis that the Commission required and that the Legislature has mandated.

A. SDG&E Has a Long History of Failing to Comply with the Commission's Risk-Based Decision-Making Framework Decisions.

SDG&E has repeatedly failed to include in its WMP "all relevant wildfire risk and risk mitigation information" required by the S-MAP and RAMP decisions,[15] including D.14-12-025, D.16-08-018, and D.18-12-014. The Commission issued D.14-12-025 in R.13-11-006, in which the Commission adopted "a risk-based decision-making framework, consisting of the Safety Model Assessment Proceeding [S-MAP], the Risk Assessment and Mitigation Phase [RAMP] proceeding, and the filing of annual verification reports consisting of the Risk Mitigation Accountability Report and the Risk Spending Accountability Report."[16]

D.14-12-025 required the utilities to file comprehensive[17] RAMP submissions containing the following information:

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[13] Resolution WSD-002 Appendix A, p. A3.
[14] Pub. Util. Code, § 8386, subd. (c); D.19-05-036, *Guidance Decision on 2019 Wildfire Mitigation Plans Submitted Pursuant to Senate Bill 901* (May 30, 2019), p. 28-29, Appendix A, p. A2.
[15] Pub. Util. Code, § 8386, subd. (c)(11).
[16] D.14-12-025, *Decision Incorporating a Risk-Based Decision-Making Framework into the Rate Case Plan and Modifying Appendix A of Decision 07-07-004* (December 4, 2014), p. 54-55 (OP 1).
[17] D.14-12-025 at 39-40 (Limiting the utility's RAMP submission to just 10 asset categories may prevent the Commission and interested parties from having a comprehensive view of the utilities potential safety risks, and its plans for addressing those risks. Since the RAMP will provide the first opportunity for parties to see how the utility prioritizes safety in terms of its assets and operations, the RAMP should not be limited to a maximum of 10 asset categories. Accordingly, the utility's RAMP submission shall include all of its risk assessments and mitigation plans.").

- The utility's prioritization of the risks it believes it is facing and a description of the methodology used to determine these risks…
- A description of the controls currently in place, as well as the "baseline" costs associated with the current controls.
- The utility's prioritization of risk mitigation alternatives, in light of estimated mitigation costs in relation to risk mitigation benefits (Risk Mitigated to Cost Ratio).
- The utility's risk mitigation plan, including an explanation of how the plan takes into account: Utility financial constraints; Execution Feasibility; Affordability Impacts; Any other constraints identified by the utility.
- For comparison purposes, at least two other alternative mitigation plans the utility considered and an explanation of why the utility views these plans as inferior to the proposed plan.[18]

D.14-12-025 also required at least two S-MAP proceedings for the large energy utilities, so that the Commission and the parties could "explore and analyze each energy utility's approach to prioritize the risk to safety associated with each utility's system and services, and the tools or activities that the energy utilities use to manage, mitigate, and minimize those safety risks."[19]

D.16-08-018, the first decision the Commission issued in the first S-MAP proceeding, highlighted the importance of a cost effectiveness analysis and clarified that calculating risk reduction per dollar "is required by D.14-12-025 and is necessary information for balancing safety with reasonable rates and holding utilities accountable for safety spending," found that "[p]rioritizing based on cost-effectiveness measures is an important improvement to rate cases and an important step to optimizing portfolios," concluded that the "utilities' RAMP filings should include calculations of risk reduction and a ranking of mitigations based on risk reduction per dollar spent," and ordered that RAMP filings "shall explicitly include calculation of risk reduction and a ranking of mitigations based on risk reduction per dollar spent."[20] D.16-08-018 also concluded that "[p]rioritizing the reduction of safety risks should be geared towards safety risk, and should not include financial interests" and directed the utilities "to remove shareholders' financial interests from consideration in their risk models and decision frameworks used to support case expenditure proposals, especially at the operational level, unless the utility can make a good case for an exception in its" RAMP filing.[21]

[18] D.14-12-025, p. 32.
[19] D.14-12-025, p. 25, 27.
[20] D.16-08-018, *Interim Decision Adopting the Multi-Attribute Approach (Or Utility Equivalent Features) and Directing Utilities to Take Steps Toward a More Uniform Risk Management Framework* (August 18, 2016), p. 187 (Finding of Fact 81, 82), p. 192 (Conclusion of Law 30), p. 196 (OP 8).
[21] D.16-08-018, p. 195-196 (OP 7); *see also id.* at 192-193 (Conclusion of Law 36, 37).

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Later in the S-MAP proceeding, in D.18-12-014, the Commission adopted a settlement agreement between all of the large utilities, the Public Advocates Office, and several intervenors, which expanded on the requirements of D.14-12-025 and D.16-08-018.[22] Among other things, D.18-12-014 mandates that (1) the utilities "clearly and transparently explain its rational for selecting mitigations for each risk and for its selection of its overall portfolio of mitigations;" (2) that "[i]nputs and computations…should be clearly stated and defined" and "the sources of inputs should be clearly specified," (3) that the utilities "use utility specific data" in identifying potential consequences of and frequency of a risk event; (4) that the utilities measure risk reduction provided by a risk mitigation; and (5) that the utilities calculate risk spend efficiency (RSE) "by dividing the mitigation risk reduction benefit by the mitigation cost estimate."[23] Additionally, D.18-12-014 limits reliance on subject matter experts (SMEs) to situations where utility-specific data is unavailable; and, when SMEs must be used, requires the utilities to describe the process, assumptions, and information utilized.[24] As the Commission has explained, the settlement agreement approved in D.18-12-014 "provided a more robust and stronger version of the ten recommended RAMP components than was first introduced in D.16-08-018," including the requirement "that risk spend efficiency [RSE] calculations for risk mitigations are independent of RAMP risk selection."[25]

In SB 901, the California Legislature expressly incorporated the Commission's risk-based decision-making framework which the California Legislature into the wildfire mitigation statutes.[26] Last year, after reviewing the utilities' 2019 WMPs, the Commission in D.19-05-036 described the utilities' risk assessments as a "black box with insufficient description of the supporting information and rational for proposed programs."[27] Acknowledging that a "'trust us, we know what we are doing' approach to risk assessment is not appropriate given recent wildfire activity,"[28] the Commission ordered the utilities in their 2020 WMPs to comply with Section 8386's mandate that WMPs must "include all relevant wildfire risk and risk mitigation information" required by the Commission's S-MAP and RAMP decisions, including the Risk-Spend Efficiency analysis required by D.18-12-014.[29]

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[22] D.18-12-014, *Phase Two Decision Adopting Safety Model Assessment Proceedings (S-MAP) Settlement Agreement with Modifications* (December 13, 2018), Attachment A, p. A-3 (defining Settling Parties).
[23] D.18-12-014, Attachment A, p. A-8, A-12, A-13, A-14, A-17.
[24] D.18-12-014, Attachment A, p. A-8, A-17, A-18.
[25] I.19-11-010/011, Order Instituting Investigation into the Risk Assessment and Mitigation Phase Submission of San Diego Gas & Electric Company (November 7, 2019), p. 3-4.
[26] Pub. Util. Code, § 8386, subd. (c); D.19-05-036, p. 28-29, Appendix A, p. A2.
[27] D.19-05-036, p. 29, fn. 42.
[28] D.19-05-036, p. 29, fn. 42.
[29] D.19-05-036, p. 28-29 ("The WMP statute refers to the Commission's safety-oriented processes carried out during GRCs.[] We interpret the inclusion of those processes to reflect a desire to ensure the safety work in GRCs is incorporated into WMPs. We agree that both processes are important to a consideration of the adequacy of utility safety efforts. Our recent decision in the S-MAP/GRC context adopted an approach that prioritizes actions based on their 'Risk-Spend Efficiency.' The approach uses a tool called Multi-Attribute Value Function (MAVF) that provides a single value to measure the combined effects of each mitigation measure on a certain risk event. The process involves performing risk assessments and

The Commission expressly ordered SDG&E to comply in its 2020 WMP with the Commission's S-MAP and RAMP decisions:

> San Diego Gas & Electric's 2020 Wildfire Mitigation Plan shall use the quantitative risk assessment framework adopted in Decision 18-12-014 in the Safety Model Assessment Proceeding to evaluate and compare the cost effectiveness of each of the mitigations that were under consideration in developing the Wildfire Mitigation Plan. The Wildfire Mitigation Plan shall provide the risk spend efficiency results of the quantitative risk analysis and include an explanation of the Multi-Attribute Variable Framework used and how it was constructed. [30]

AB 1054, which became effective after the Commission's decisions on the utilities' 2019 WMPs, did not change the requirement that the utilities' WMPs must adhere to the S-MAP and RAMP decisions.[31] Thus, SDG&E remains statutorily-required to engage in the necessary cost-effectiveness analysis, including providing RSEs, and otherwise comply with D.18-12-014.[32]

As the Commission correctly concluded, however, SDG&E failed to comply with the Commission's orders: the Commission again determined that the utilities' 2020 WMPs continue to fail to assess and analyze risk properly, and made express findings which establish that SDG&E failed to comply with the Commission's direct order contained in D.19-05-039.[33]

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ranking risks using safety, reliability, and other attributes. This approach provides a means to compare the programs against each other for effectiveness, especially when multiple overlapping programs are proposed for the same assets and intended to mitigate the same risk event (i.e., increased vegetation clearing coupled with installing covered conductor and expanded de-energization practices). Including such analysis in the WMPs would provide the Commission a transparent and effective way to balance overlapping programs in the WMP and assess which programs are needed and effective. As stated above, the statute requires 'all relevant wildfire risk and risk mitigation information that is part of the Safety Model Assessment Proceeding and Risk Assessment Mitigation Phase filings.' This quantitative information is relevant, and the process of conducting these analyses may allow stakeholders to better understand the cost effectiveness of proposed mitigations.").

[30] D.19-05-039, *Decision on San Diego Gas & Electric Company's 2019 Wildfire Mitigation Plan Pursuant to Senate Bill 901* (May 30, 2019), p. 23-24, p. 31 (OP 12).

[31] Pub. Util. Code, § 8386, subd. (c)(11).

[32] D.19-05-039, p. 31 (OP 12).

[33] Resolution WSD-002, p. 19-30, Appendix A, p. A1 ("2020 WMP submissions contain sparse and sporadic detail regarding the RSE of WMP initiatives. RSE calculations are critical for determining whether utilities are effectively allocating resources to initiatives that provide the greatest risk reduction benefits per dollar spent, thus ensuring responsible use of ratepayer funds. Although RSE concepts have been considered for several years through Commission GRCs, utilities still display unrefined and limited abilities to produce such information. Considering that utilities propose to spend billions of dollars on WMP initiatives, not having quantifiable information on how those initiatives reduce utility ignition risk relative to their cost severely limits the WSD's ability to evaluate the efficacy of such initiatives and each utility's portfolio of initiatives, as outlined in 2020 WMPs."); Appendix A, p. A1-A3, A5-A10;

The Commission correctly concluded SDG&E's 2020 WMP continues to fail to provide the requisite analysis of risk reduction per dollar spent, and continues to fail to provide sufficient details so as to clearly and transparently reveal the reasons for selecting mitigation activities and the effectiveness of those activities.[34]

B. SDG&E's RCP Fails to Address the Deficiencies the Commission Identified and Required SDG&E to Remedy.

SDG&E's RCP spends less than three pages purporting to address the Commission's fundamental concerns with SDG&E's WMP.[35] Far from addressing the fundamental deficiencies in SDG&E's approach which have now been repeatedly identified by the Commission, SDG&E explains that it plans to continue its deficient approach.[36]

SDG&E's continues to fail to provide a transparent description explaining how it intends to apply risk assessment techniques to each WMP initiative,[37] instead referring to yet another "black box" modeling program[38] and provides no detail in its RCP about the various initiatives in its WMP at all.

Resolution WSD-005, p. 11-12 ("1) *Risk modeling and decision-making.* San Diego Gas and Electric Company's (SDG&E) WMP does not adequately address how SDG&E factors its modeling into decision-making, and whether and how it updates its models based on lessons learned. 2) *Situational awareness and forecasting*. SDG&E's WMP does not adequately address how it utilizes its Fire Potential Index (FPI), or whether it has fully explored early fault detection measures. 3) *Grid design and system hardening*. SDG&E's WMP does not adequately identify or describe the details of its more costly planned investments, or of its decision-making process with respect to its various planned initiatives. 4) *Asset management and inspections*. SDG&E's WMP does not adequately describe the details of its risk assessment process, or whether and how it considers alternatives to identified risk reduction initiatives. 5) *Vegetation management*. SDG&E's WMP lacks details with which to evaluate its vegetation management practices, in particular whether and how its "enhanced" vegetation management practices provide incremental risk reduction benefits. 6) *Public Safety Power Shutoff (PSPS).* SDG&E's WMP does not adequately describe SDG&E's current PSPS protocols. 7) *Resource allocation*. SDG&E's WMP does not adequately address the details of its resource allocation process. In particular, the WMP lacks details regarding whether and how specific mitigations or initiatives reduce the need to resort to a PSPS event.").

[34] Resolution WSD-002, p. 20 ("Although RSE concepts have been considered for several years through Commission GRCs, utilities still display unrefined and limited abilities to produce such information. Considering that utilities propose to spend billions of dollars on WMP initiatives, not having quantifiable information on how those initiatives reduce utility ignition risk relative to their cost severely limits the WSD's ability to evaluate the efficacy of such initiatives and each utility's portfolio of initiatives, as outlined in 2020 WMPs."); Resolution WSD-005, p. 11-12, 23-25, 33, 37-38, 43-44, 46, 49.

[35] San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Remedial Compliance Plan (June 27, 2020) (RCP), p. 2-4.

[36] *See e.g.* RCP, p. 2 (SDG&E planning to "build on the Risk Spend Efficiency (RSE) methodology demonstrated in RAMP and the WMP").

[37] Resolution WSD-002 Appendix A, p. A3, Condition i.

[38] RCP, p. 2 (referring to the WiNGS program).

Rather than provide *any* additional information regarding its current wildfire risk analysis,[39] SDG&E regurgitates with no detail activities already determined to be inadequately described in its 2020 WMP, including programs SDG&E's deficient 2020 WMP itself conceded contained redundancies.[40]

Moreover, in referring to its 2019 RAMP Report, SDG&E admits it has failed properly to prioritize wildfire risk reduction activities, reveals that it will fail to incorporate improvements into proper prioritization of wildfire risk reduction activities, and demonstrates its refusal to learn any lessons from repeated Commission directives.[41] SDG&E's grossly deficient 2020 WMP was based upon its 2019 RAMP Report.[42] As PCF has explained in various proceedings, SDG&E's 2019 RAMP Report fails to comply with the Commission's mandates set forth in D.14-12-025, D.16-08-018, and D.18-12-014. The 2019 RAMP Report fails to remove shareholders' financial interests from risk assessment decision-making; it fails to describe adequately the risks the utilities' systems pose to the public; it fails to prioritize risk reduction measures based on cost-effectiveness; it fails to analyze appropriately how each mitigation measure might actually reduce risk; it fails to include the necessary RSEs; it fails to use available and informative utility-specific data; it fails to meet transparency requirements; and it fails to present adequate alternatives.[43]

The 2019 RAMP report does not come close to meeting the requirements in D.18-12-014 that the utilities "clearly and transparently explain its rationale for selecting mitigations for each risk and for its selection of its overall portfolio of mitigations" and that the "methodologies used by the utility should be…logically sound."[44] The transparency and logical soundness requirements approved in D.18-12-014 mandate that the utilities' risk assessments be understandable, and the requirements direct the utilities to state clearly and define inputs and computations, and to specify sources of inputs and "all information and assumptions that are used to determine both pre- and post-mitigation risk scores."[45]

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[39] Resolution WSD-002 Appendix A, p. A3, Condition ii.
[40] RCP, p. 2 (referring to WRRM and PRiME models without a transparent description); San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Rev. 1 (March 20, 2020), p. 73 ("SDG&E is consolidating its prior system hardening programs (e.g., FiRM, PRiME, and WiSE) into the Distribution Overhead Hardening program").
[41] Resolution WSD-002 Appendix A, p. A3, Conditions ii, iv, v.
[42] Resolution WSD-005, p. 44 ("…in terms of risk assessment, SDG&E's WMP simply refers to its RAMP…").
[43] A.17-10-007/008, The Protect Our Communities Foundation Response to Joint Petition for Modification of D.19-09-051 of Southern California Gas Company and San Diego Gas & Electric Company (May 11, 2020), p. 25-50.
[44] D.18-12-014, Attachment A, p. A-14, A-17; A.17-10-007/008, The Protect Our Communities Foundation Response to Joint Petition for Modification of D.19-09-051 of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 M) (May 11, 2020), p. 46-47.
[45] D.18-12-014, Attachment A, p. A-14, A-17.

In concluding that SDG&E's 2020 WMP failed to include the necessary RSEs and otherwise meet the requirements of D.18-12-014 and its predecessors, the Commission necessarily determined the 2019 RAMP Report fails to meet the Commission's minimum standards. For example, the Commission concluded that "SDG&E's WMP does not adequately identify or describe the details of its more costly planned investments or its decision-making process with respect to its various planned initiatives," and that "the WMP does not provide an adequate description of [prioritization methods and resource allocation processes] nor how specifically they led SDG&E to identify which measures to pursue, where to pursue them, and in what order to pursue them."[46] The Commission found "there is a clear gap and absence of detail on the relationship between various hardening, vegetation management, and asset management initiatives and corresponding impacts on thresholds for imitating PSPS events," and faulted SDG&E for failing to provide spending data for its resource allocation methodology."[47]

As PCF has explained in various proceedings, SDG&E did not even attempt to calculate RSEs for more than half of its risk reduction activities in the 2019 RAMP Report, claiming to calculate RSEs only for "all in-scope non-mandated activities, certain mandated Controls, and all Mitigations whether they were mandated or not."[48] SDG&E failed to quantify a number of maintenance activities[49] including inspection activities – a cost-effective strategy for reducing wildfire risk.[50]

SDG&E's failure to calculate RSEs for all of its risk reduction activities violates D.18-12-014 and the terms of the settlement agreement approved therein to which SDG&E agreed. D.18-12-014 required that the utilities measure risk reduction provided by *all* risk mitigations;[51] and that the utilities calculate RSE "by dividing the mitigation risk reduction benefit by the mitigation cost estimate."[52] SDG&E's purported justifications for refusing to calculate RSEs for inspection activities, include that the costs "are embedded in internal labor" that programs are "mandated pursuant to GO 165," or are "related to assets in the jurisdiction of the FERC."[53]

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[46] Resolution WSD-005, p. 29-30.
[47] Resolution WSD-005, p. 43-44.
[48] 2019 RAMP Report: SDG&E D-9; *see also* I.19-11-010/011, The Protect Our Communities Foundation Reply in Support of its Proposal Regarding How This Proceeding Should Move Forward in Light of the Directives in D.20-01-002 and Comments on the Joint 2019 Risk Assessment and Mitigation Phase Report of Southern California Gas Company (U 904-G) and San Diego Gas & Electric Company (U 902-M) (April 6, 2020), p. 29.
[49] The Protect Our Communities Foundation Comments on the 2020 Wildfire Mitigation Plans Pursuant to Resolution WSD-001 (April 7, 2020), p. 15, available at ftp://ftp.cpuc.ca.gov/WMP/PublicComments/POC%20Comments%202020%20WMP.pdf; *see also e.g.* 2019 RAMP Report: SDG&E 8-31, 8-32 (SDG&E failing to quantify pipeline maintenance as a risk reduction mechanism).
[50] 2019 RAMP Report: SDG&E 1-88, 1-89.
[51] D.18-12-014, Attachment A, p. A-12.
[52] D.18-12-014, Attachment A, p. A-13.
[53] 2019 RAMP Report: SDG&E 1-21, fn. 35 ("Costs were not identified for this activity because they are embedded in internal labor. A Risk Spend Efficiency calculation is therefore not being performed."),

SDG&E's inapposite arguments fail to justify SDG&E's failure to comply with the Commission's repeated directives to assess risk reduction strategies based on the cost-effectiveness of each activity. SDG&E's failure to calculate RSEs in its 2019 RAMP Report for all of its risk reduction activities provides a distorted view of the company's risk assessments and strategies and fails to provide the comprehensive analysis repeatedly required by the Commission.[54] SDG&E's failure to even attempt to quantify risk reduction per dollar spent for the majority of its risk reduction activities means, as the Commission has previously recognized, that "no meaningful ranking, prioritization or optimization of risk mitigations is possible, and the Commission's goals and processes set forth in D.14-12-025 are compromised."[55]

Additionally, SDG&E's continued focus on capital programs evidences SDG&E's continued failure to "to remove shareholders' financial interests from consideration in their risk models and decision frameworks used to support rate case expenditure proposals, especially at the operational level, unless the utility can make a good case for an exception in its Risk Assessment Mitigation Phase filing" as required by D.16-08-018.[56]

SDG&E's continued reliance on its 2019 RAMP Report in its RCP, despite the Commission's determinations regarding SDG&E's deficient approach to risk assessment, all but ensures that the Commission's safety and risk reduction mandates will not be achieved and certainly fails to address the conditions of approval set forth in WSD-002 and WSD-005.

III. SDG&E ADMITS TO VIOLATING THE COMMISSION'S ORDERS IN D.19-05-039 AND FAILS TO ADDRESS THE VEGETATION MANAGEMENT DEFICIENCIES IDENTIFIED BY THE COMMISSION IN BOTH 2019 AND 2020.

As set forth below, SDG&E's deficient vegetation management practices – which SDG&E fails to remedy in its RCP – confirms SDG&E failed to comply with the Commission's express orders in D.19-05-039 and demonstrates SDG&E's disregard of applicable legal authorities.

SDG&E 1-22 (field observations are included in SDG&E-1-C1-Operating Conditions category for which no RSEs are provided), SDG&E 1-87; SDG&E 1-90 ("Because this program is mandated pursuant to GO 165, an RSE calculation is not being performed.), SDG&E 1-91 ("Because this control is related to assets in the jurisdiction of the FERC, SDG&E is not including the associated costs from this activity in this Report…Accordingly, a Risk Spend Efficiency calculation is not being performed.").

[54] D.14-12-025, p. 39-40 (a utility's RAMP submission is required to provide a "comprehensive view of the utilities potential safety risks, and its plans for addressing those risks," and must "include all of [a utility's] risk assessments and mitigation plans")

[55] D.16-08-018, p. 182 (Finding of Fact 33: "Without quantifying risk reduction, no meaningful ranking, prioritization or optimization of risk mitigations is possible, and the Commission's goals and processes set forth in D.14-12-025 are compromised.").

[56] San Diego Gas & Electric Company Wildfire Mitigation Plan Rev 1 (March 2, 2020) p. 145 (citing to 2019 RAMP Report); D.16-08-018, p. 195-196 (OP 6).

The Class A deficiency identified in Resolution WSD-002 as SDG&E-13 calls out SDG&E's failure to comply with the Commission's express orders related to vegetation management as set forth in D.19-05-039.[57] In D.19-05-039 the Commission identified major problems with SDG&E's vegetation management practices and prohibited SDG&E from proceeding with any enhanced vegetation management unless it first demonstrated need and scientific support.[58] After reviewing SDG&E's 2020 WMP, the Commission properly determined that SDG&E failed to comply with the Commission's express orders in D.19-05-039 related to SDG&E's vegetation management practices.[59]

In order to remedy SDG&E's failure to provide "detail proposed guidelines for where such a clearance is both feasible and necessary, or scientific evidence or other data showing that such clearance will reduce wildfire risk, as directed in our decision approving SDG&E's 2019 WMP," the Commission required SDG&E to provide that data in its RCP, and also to collaborate with the other large utilities on vegetation management:

> SDG&E shall submit an RCP with a plan for the following:
> i. Comparing areas with and without enhanced post-trim clearances to measure the extent to which post-trim clearance distances affect probability of vegetation caused ignitions and outages.
> ii. Collaborating with PG&E and SCE in accordance with Conditions PG&E-26 and SCE-12 to develop a consensus methodology for how to measure post-trim vegetation clearance distance impacts on the probability of vegetation caused ignitions and outages[60]

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[57] Resolution WSD-005 Appendix A, p. A9 (Deficiency: "Throughout its WMP, SDG&E expresses an intent to obtain greater clearances than those required or recommended by the Commission. As these vegetation management programs continue to grow in scope, detailed discussion or evidence of the effect of these increased vegetation clearances on utility ignitions remains lacking. Specifically, SDG&E does not detail proposed guidelines for where such a clearance is both feasible and necessary, or scientific evidence or other data showing that such clearance will reduce wildfire risk, as directed in our decision approving SDG&E's 2019 WMP. Further details were provided to the WSD in response to a data request, specifically that SDG&E performs a tree-by-tree analysis with particular concern for "at-risk species" to determine if a 25-foot clearance is beneficial. SDG&E's WMP does not provide results or analysis of the effectiveness of this measure since implementation of its 2019 WMP, as required by D.19-05-039. Without the ability to understand or even observe an incremental benefit of this increased clearance, it will be difficult to determine the effectiveness of this measure").

[58] D.19-05-039, p. 29-30 (OP 5) (SDG&E's excessive clearance not allowed unless supported by scientific evidence).

[59] Resolution WSD-005 Appendix A, p. A9 ("Specifically, SDG&E does not detail proposed guidelines for where such a clearance will reduce wildfire risk, as directed in our decision approving SDG&E's 2019 WMP…SDG&E's WMP does not provide results or analysis of the effectiveness of this measure since implementation of its 2019 WMP, as required by D.19-05-039. Without the ability to understand or even observe an incremental benefit of this increased clearance, it will be difficult to determine the effectiveness of this measure.").

[60] Resolution WSD-005, Appendix A, p. A9.

In its RCP, however, SDG&E admits that it has not and cannot yet comply with the requirements in D19-05-039 to ensure that its enhanced vegetation management program be grounded in science before proceeding which such a program.[61] Thus, SDG&E confirms both its failure to comply with Condition SDGE-13(i) as set forth in Resolution WSD-005, as well as its failure to comply with the Commission's express orders in D.19-05-039; and therefore that any enhanced vegetation management program is entirely unauthorized, unjust, and unreasonable.[62] Moreover, SDG&E has not provided any evidence that it holds any legal interest in the subject properties; and the Commission has no jurisdiction and cannot authorize vegetation management on real property in which SDG&E holds no legal interest.[63]

It is not enough for SDG&E to state that it has "participated in several meetings" with the other large utilities.[64] For the Commission to approve SDG&E's tree removal scheme, SDG&E must first establish that it has an interest in the property: if SDG&E cannot establish enhanced clearing falls within the scope of its current easement rights, this should be the end of the inquiry.[65] If SDG&E can establish that it has an interest in the property, then SDG&E must comply with CEQA.[66]

SDG&E has not and cannot show that its tree removal program is exempt from CEQA,[67] which only exempts "minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes" - an exemption which does not apply to the extensive and excessive vegetation management practices described in SDG&E's 2020 WMP.[68]

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[61] RCP, p. 5 (SDG&E admitting it has not yet gathered enough data to support its proposed enhanced vegetation management); *compare* D.19-05-039, p. 29-30 (OP 5: allowing for enhanced vegetation only "if such a practice is supported by scientific evidence or other data showing that such clearance will reduce risk under wildfire conditions").

[62] Resolution WSD-005, Appendix A, p. A9 ("…SDG&E does not detail proposed guidelines for where such a clearance will reduce wildfire risk…").

[63] A.17-10-007/008, The Protect Our Communities Foundation Comments on Assigned Commissioner's Amended Scoping Memorandum and Ruling (July 20, 2020), p. 20; *Greyhound Lines, Inc. v. P.U.C.* (1968) 68 Cal.2d 406, 411 ("It was early decided and remains the law that the perimeter of commission authority to order service modifications is staked out by the limits of a utility's dedication or devotion of its property to public use. The power to order 'additions, extensions, repairs, improvements' within the scope of dedication is extensive; without the scope of dedication, the commission's power is ineffectual."); *Cerf v. Peleging* (1892) 94 Cal.131, 136 (one cannot dedicate the land of another).

[64] RCP, p. 5.

[65] *Ibid.*; *see also Dolnikov v. Ekizian* (2013) 222 Cal.App.4th 419, 428 ("Incidental or secondary easement rights are limited by a rule of reason.").

[66] Resolution WSD-002, p. 46 (OP 12: "Nothing in the review and approval of WMPs relieves the electrical corporations of any otherwise applicable environmental laws or other statutory requirements. Moreover, environmental stewardship is an important value to California and electrical corporations are expected to consider environmental values in all their decision-making…").

[67] SDG&E 2020 WMP, p. 114.

[68] 14 Cal. Code Regs., § 15304, subd. (i); 14 Cal. Code Regs., § 15300.2.

SDG&E's half-page vegetation management section of its RCP admits SDG&E has failed to comply with D.19-05-039 and Condition SDGE-13(i). The so-called plan set forth in SDG&E's RCP in an attempt to comply with Condition SDGE-13(ii) entirely fails to provide any indication of SDG&E's compliance with basic legal prerequisites such as establishing the Commission's jurisdiction and compliance with CEQA. SDG&E not only fails to demonstrate any interest in the 25-foot area SDG&E proposes should be cleared, but fails to demonstrate any intention on SDG&E's part to comply with CEQA, such as how SDG&E intends to mitigate the adverse climate change impacts of eliminating natural carbon sinks[69] and that SDG&E has considered alternatives to its proposed excessive vegetation clearance practices.[70]

IV. CONCLUSION

SDG&E's RCP reveals that SDG&E refuses to take the Commission's orders seriously. SDG&E has repeatedly failed to provide the risk-related information repeatedly required by the Commission; and SDG&E admits in its RCP that it failed to comply with the Commission's vegetation-related orders made just last year. Having failed to address the Class A deficiencies identified by the Commission in its RCP, SDG&E has failed to satisfy the Commission's mandatory conditions; and thus SDG&E's 2020 WMP cannot be approved.

Sincerely,

/s/ Malinda Dickenson
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Greg Anderson, Regulatory Tariff Manager (GAnderson@sdge.com)
Service List for A.17-10-007

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[69] *See* Jean-Francois Bastin et al., *The global tree restoration potential,* Science (July 5, 2019); *see also* The Guardian, *Tree planting 'has mind-blowing potential' to tackle climate crisis,* available at https://www.theguardian.com/environment/2019/jul/04/planting-billions-trees-best-tackle-climate-crisis-scientists-canopy-emissions; The Guardian, *Greta Thunberg: 'We are ignoring natural climate solutions' Film by Swedish activist and Guardian journalist George Monbiot says nature must be used to repair broken climate,* available at https://www.theguardian.com/environment/2019/sep/19/greta-thunberg-we-are-ignoring-natural-climate-solutions.

[70] 14 Cal. Code Regs. § 15064.4 (Determining the Significance of Impacts from Greenhouse Gas Emissions); 14 Cal. Code Regs. § 15065 (Mandatory Findings of Significance); 14 Cal. Code Regs., § 15126.6; Bear Valley Electric's 2020 WMP, p. 57 (minimizing fire risk with a 6-foot separation standard in combination with regular walking inspections of rights-of-way and timely preventive tree trimming).

Attachment 4:

August 11, 2020 WSD Staff Proposal on Changes to WMP Requirements and Metrics Tables

California Public Utilities Commission

Wildfire Safety Division
Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables

August 11, 2020

STAFF REPORT

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EXECUTIVE SUMMARY

In order to streamline and clarify certain reporting requirements for the 2021 Wildfire Mitigation Plans (WMP), and to fill in some identified gaps in data submissions, staff of the Wildfire Safety Division (WSD) have reviewed the WMP Guidelines and recommend several changes.

These changes take the form of **Structural** changes (reordering sections to improve the ability to evaluate WMPs, adding some new elements), and **Substantive** changes to the tables of data and metrics.

A major structural change is creation of a separate section for Public Safety Power Shutoff data and information as the last chapter of the WMP. Data for this section would be in tables that previously appeared in the Outcome Metrics Table 2.3 and 2.10 and in Table 12 of the WMP and in several table that were part of the Supplemental Data Request (SDR), notably Tables 2, 5, 11, 12 & 13, although some of this is duplicative of the information contained in the WMP tables. A few other higher level SDR tables are also considered for incorporation into the 2021 WMP update. These recommended changes are described below.

An issue with the 2020 WMPs was that utilities were inconsistent in their reporting of projected expenditures associated with the 10 categories of Mitigations. In some cases, few cost estimates were given; in others, there appeared to be overlap and duplication among categories.

Although the WMP is not the proper forum for approving projected expenditures or finding them to be reasonable for cost recovery purposes, understanding expected costs of mitigation is fundamental to the analysis of effectiveness and feasibility, as well as an essential component of the risk-spend efficiency estimations required for all mitigations.

Therefore, WSD staff is proposing a new section that summarizes proposed expenditures for the 2021 WMP update and breaks out spending by mitigation category.

While several other new elements may be added to the Guidelines[1], the majority of changes relate to definitions and/or units of measurement used in reporting. Others result in the elimination of duplicate tables or line items in tables that are not necessary for 2021 WMPs.

Particular attention is given to the Progress and Outcome reporting Tables 1 – 18, as these establish the body of metrics that will be used for evaluation of utility progress in reducing the risks and consequences associated with utility-caused wildfires.

The recommendations below are a DRAFT of the 2021 WMP recommendations and NOT exhaustive.

[1] Link to 2020 WMP Guidelines can be found here - https://www.cpuc.ca.gov/wildfiremitigationplans/

Overview of WMP Recommendations

The WSD, by October 31, 2020, will issue a Resolution containing proposed updated Guidelines for the 2021 Wildfire Mitigation Plans for action by the Commission by December 1.

While this document is largely concerned with proposed changes to the Guideline structure and Tables of Metrics in the WMP, the revised Guidelines will consider several new additions to the WMP, based on lessons learned in the 2020 WMP review process, recommendations from the Wildfire Safety Advisory Board, comments received on the 2020 Guidance ruling issued in Rulemaking 18-10-007 on December 16, 2020,[2] workshop discussion and comments, and the input from the Subject Matter Experts who assisted in the WSD's evaluation of the 2020 WMPs.

This document is organized by section in the WMP, including new sections to the guidelines to meet stakeholder needs. Across Guideline sections, there are nine key areas of revision (listed below). Stakeholders are encouraged to provide written comments on or before August 26th, 2020 through email to wildfiresafetydivision@cpuc.ca.gov and to service list 18-10-007. Written comments across all content in the August 11-12, 2020 workshop is limited to 20 pages total.

Nine objectives for revision of the WMP guidelines

1. Standardize Data Across Utilities
   - Streamlined reporting and improved cross-utility comparisons
2. Require Consistent and Transparent Summaries
   - More consistent formatting
   - Completeness check template
3. Require Local Outreach and Outcome Metrics
   - PSPS reduction plans
   - Community Outreach
4. Require Ratepayer Impacts
   - Summaries of Mitigation Expenditures
   - Planned Spending by Mitigation Categories
   - Ratepayer Impact Projections
5. Improve Guidance for Goals, Objectives and Program Targets Reporting
6. Cite Relevant Statutes and Orders throughout Guidelines
7. Require Utility Training Practices
8. Require Contact Information and Qualifications
9. Create Separate Public Safety Power Shutoff Section

[2] Comments were received in January 2020

A. WMP Section 1: Persons responsible for executing the WMP

Issue: In the initial filing of 2020 WMPs, most utilities did not fully identify the individuals responsible for components of the WMP, necessitating a follow-up data request or revision.

Recommendations:

- **Recommended change 1a**: Provide contact information of the responsible person(s) executing the plan, including
  - Executive level with overall responsibility, with contact information (telephone and email).
  - Program owners, individually identified with contact information (telephone and email) specific to each component of the plan

- **Recommended change 1b:** All experts consulted in the preparation of the WMP should be cited by name and include their relevant background/credentials.

Note: Contact information deemed confidential may be provided in a redacted supplement.

B. NEW: WMP Section 2: Adherence to statutory requirements

Issue: Section 8386 (c) of the Public Utilities Code specifies 22 requirements for inclusion in the WMPs. WSD conducted a first-step "completeness" review to ensure required information was included in the WMPs, there were many instances where information was lacking or difficult to find in the WMP. This necessitated a very large volume of Data Requests before WSD could begin verifying that the plans complied with all applicable rules, regulations, and standards, as specified in Section 8386 (d).

Recommendations:

- **Recommended change 2a:** Section 2 will comprise a "check list" of the Sec. 8386 (c) requirements, and subparts. Each utility shall both affirm that the WMP addresses each requirement AND cite the Section or Page Number where it is more fully described (whether in Executive Summary or other section of the WMP).

Illustrative Table 2-1 check-list:

Requirement	Description	WMP Section/Page
2	The objectives of the plan	Section 4.1 Page 13
10	Protocols for the de-energization of the electrical corporation's transmission infrastructure, etc.	Section 5 overview, pg. 30

C. NEW Section 3: Actuals and Planned Spending for Mitigation Plan

Issue: In the 2020 WMPs, utilities presented inconsistent reporting of projected expenditures associated with the 10 categories of Mitigations. In some cases, few cost estimates were given, in others there appeared to be double-counting of expenditures among categories.

Although the WMP is not the proper forum for approving projected expenditures or finding them to be reasonable for cost recovery purposes, understanding expected costs of mitigation is fundamental to the analysis of effectiveness and feasibility, as well as an essential component of the risk-spend efficiency estimations required for all mitigations.

Recommendations:

- **Recommended change 3a***:* Add summary tables presented below, new to the 2021 WMPs, but derived from the cost summary tables used in the WMP resolutions. In the new Table 3-1, the projected costs are summarized per year over the three-year WMP cycle, but the table also includes a new column to report actual expenditures for the prior year (2020). Table 3-2 breaks out projected costs per category of mitigations, over the three-year WMP cycle.

Table 3-1: Summary of WMP Expenditures	
2020 WMP	$3.15 billion
2020 act.	$3.14 billion
Difference	-$10 million
2021	$3.13 billion
2022	$3.41 billion
2020-22	$9.68 billion

Table 3-2 Summary of WMP Expenditures						
WMP Category	2020 WMP Planned	2020 Actual	Difference	2021	2022	2020-22 (w/ 2020 Actual)
Risk and Mapping						
Situational Awareness						
Grid Design & System Hardening						
Asset Management & Inspections						
Vegetation Management						
Grid Operations						
Data Governance						
Resource Allocation						
Emergency Planning						
Stakeholder Cooperation Community Engagement						
Total						

- The 2021 WMP will be more direct in requiring risk-spend efficiency calculations for mitigations, both for individual mitigations and for aggregated categories of mitigations. Along with RSE calculations, utilities will be required to report their methodology behind RSE numbers, including data used & calculations conducted to reach RSE in the WMP.
- **Recommended Change 3b**: WMP to also include fields from the Supplemental Data Request that are relevant to Costs:
  - SDR Table 2 Field 3a - Electricity Cost Increase to Ratepayers from Wildfires
  - SDR Table 2 Field 3c - Electricity Cost Increase to Ratepayers from Mitigations
  - Fields are shown below for reference

	Annual performance					
Outcome metric name	2016	2017	2018	2019	2020	Unit(s)
Increase in electric costs to ratepayer due to wildfires (total)						Dollar value rates increase attributable to wildfires per year
Increase in electric costs to ratepayer due to wildfire mitigation activities (total)						Dollar value rates increase attributable to WMPs per year

D. NEW Section 4: Lesson Learned and Risk Trends

Issue: Section 4 in the WMP currently serves as a catch-all for narrative and reporting of trends. Section 4 should be more focused to improve evaluation process. Moreover, relevant narrative portions to risk trends, such as "Lessons learned" were either missing or placed within the larger narrative portion of Section 2 Metrics.

Recommendations:

- **Recommended Change 4a:** Move "Lessons Learned" into Section 4 with no changes to the instructions.
- **Recommended Change 4b:** Keep the following sections in Section 4:
    - 4.1 – Objectives of the plan (1, 3, and 10 years out)
    - 4.2 – Understanding major trends impacting ignition probability and wildfire consequence
    - 4.3 – Change in ignition probability drivers
- **Recommended Change 4c:** Move 4.4 – Directional Vision for PSPS and Table 20 to PSPS section.

E. Section 5: Inputs to the plan and directional vision for WMP

Goals, Objectives and Targets

Issue: In the 2020 WMPs, utilities were inconsistent in usage of the words: WMP Goals, Objectives, and Program Targets.

Recommendations:

- **Recommended Change 5a:** The goals of WMP should be the same for all: Documented reductions in the number of wildfires caused by utility actions or equipment and minimization of the societal consequences of both wildfires and the mitigations employed to reduce them, including PSPS.

- **Recommended Change 5b:** Objectives are unique to each utility and reflect the 1, 3, and 10-Year projections of progress towards the WMP goal. Objectives are determined by the portfolio of mitigation strategies proposed in the WMP.
- **Recommended Change 5c:** Program targets: quantifiable measurements of activity used to show progress towards reaching the objectives. More information on program targets can be found in 2020 WMP Table 4 – List and Description of Program Targets, Last 5 Years.

Addition to Section 5.5: Utility Worker Qualifications

Issue: Previous WMP reports lacked information on qualifications of utility workers (direct employees, contractors, etc.), as well as information on utility training programs to properly train wildfire mitigation workers.

- **Recommended change 5b:** Section 5.5, Planning for Workforce and Other Limited Resources, will also include a narrative explaining the qualifications of utility workers regarding wildfire & PSPS mitigation, including workers conducting:
  1. Vegetation inspections
  2. Vegetation management projects
  3. Asset inspections

  Within the narrative, information should also be provided on the percentage of electrical workers that have attained status as "Qualified Electrical Workers" (QEW)[3] for specific inspections.

Additional information should be provided on any plans to improve qualifications of workers relevant to wildfire / PSPS mitigation. Furthermore, utilities should also report how their training programs properly train wildfire mitigation workers. Specifically, utilities should explain how they are developing more robust outreach and onboarding training programs for new electric workers that train workers to identify hazards that could ignite wildfires. Wildfire mitigation worker safety should include training so that qualified electrical workers are knowledgeable in the construction and operation of equipment and work methods to identify and avoid electrical hazards.

[3] Electrical asset inspectors with qualifications that go beyond a basic knowledge of General Order 95 requirements, to perform certain types of inspections. More information can be found in the WSAB Recommendations on the 2021 Wildfire Mitigation Plan Guidelines, Performance Metrics and Safety Culture, recommendation 2.2.

F. Section 6: Metrics and Underlying Data

Issue: The 2021 WMPs will continue to require reporting on Progress Metrics and Outcome Metrics; however, in some instances, the WSD determined that the metrics were misunderstood or poorly reported by utilities and were less useful than expected.

In this case, more discussion or refinement of definition or description is needed, which may be best discussed in the workshop setting.

In a few cases, a specific Table or line item can be added, edited, or eliminated. Some examples of general edits are shown below: (not comprehensive, see write up of each table below for details):

- The table or specific data inputs are duplicative of other tables (Table 18 Ignition Drivers);
- Geospatial data is required at a higher granularity to provide metrics at a local level – per WSAB recommendation;
- Refinement of the data schema will allow WSD staff to do normalization of data without relying on the utilities to do so in tables (Portions of Table 2);
- Tables that required a five-year history of certain data may need only the Year 2020 updates, if WSD creates an accessible database of the historic information (Table 2);
- Going forward, most data requirements will likely be submitted to the WSD on a quarterly basis, and the annual WMP updates will provide the narrative to explain changes in the data. Much of the data currently reported in the WMPs will therefore come outside of the WMP submission itself.
- Some tables ask for information that is better derived from other sources such as Incident Reports to CPUC (Table 5 Accidental Deaths);
- Some requested information does not lend itself to inputs to a table, but better in narrative (Table 7 Methodology).

The following are brief descriptions of proposed changes to specific tables:

Progress Metrics

Table 1: Grid Condition Findings from Inspections –

Issue: As WSD received mixed or poor results from utilities on grid condition findings, adjustment is necessary for 2021.

As formulated, the metric does not account for the effectiveness of inspections because the numbers are normalized by total circuit miles, not circuit miles inspected.

In addition, 2020 WMPs lacked relevant progress metrics for community outreach.

Recommendations:

- **Recommended change 1a**: Remove "findings / total circuit miles" metric, and instead request two metrics for each inspection type and finding level –
  - # of findings by inspection type and level (e.g., Level 1 findings inspected from patrol inspections)
  - # of circuit miles inspected by inspection type (e.g., X miles inspected from patrol inspections)

- **Recommended change 1b:** Delete line 3 - Grid Modernization (should be reported in the Mitigation section, although it was meant to illustrate "sectionalization" in PG&E territory, so not relevant for others) and Delete line 4 - Data Collection (little useful data provided in tables).

- **Recommended Change 1c:** Consider Possible additions from the Supplemental Data Request that are relevant to Costs

- **Recommended change 1d:** Add relevant quarterly metrics regarding community outreach:
  - # of customers in an evacuation zone[4] for a utility-ignited wildfire (if customer was in an evacuation zone for multiple wildfires, count the customer for each relevant wildfire)
  - # of customers notified of evacuation orders (count customer multiple times for each unique wildfire of which they were notified. Do not count a customer multiple times if contacted multiple times about the same wildfire)
  - % of customers notified of evacuation in evacuation zone of a utility-ignited wildfire

[4] Areas designated by CAL FIRE and local fire agency evacuation orders, to include both "voluntary" and "mandatory" in addition to other orders such as "precautionary" and "immediate threat".

Outcome Metrics

Table 2: Recent Performance on Outcome Metrics –

Overall, the data for subheadings in Table 2 are useful and auditable, although it may not be necessary to have utilities report past five years if a database exists.

2.1. Near Misses

Issue: The Near Misses definition needs refinement.

In the 2020 Guidance, Near Misses were defined: "An event with significant probability of ignition, including wires down, contacts with objects, line slap, events with evidence of significant heat generation, and other events that could cause sparking or have the potential to cause ignition."

Recommendation:

- **Recommendation 2a:** Instead, WSD suggests changing Near Misses to "Near Ignitions" defined as "Events that manifest in charring, melting, heavy smoke deposits, and/or visible evidence of arching that could indicate enough heat was present, which could have led to an ignition."

2.2. Utility Inspection Findings

Issue: As with 1c, the metrics don't account for the effectiveness of inspections because they were normalized by total circuit miles rather than total circuit miles inspected. Moreover, several normalization errors on utility-reported data lead to difficulties comparing metrics across utilities.

Recommendations:

- **Recommended Change 2b:** Remove "findings / total circuit miles" metric, and instead request two metrics for each finding level –
  - # of findings by level (e.g., Level 1 findings)
  - # of circuit miles inspected (e.g., X miles)

- **Recommended Change 2c:** WSD will conduct normalization calculations across utilities.

2.3. Customer Hours of PSPS

Issue: Need to ensure consistency in the reporting of unplanned outages.

Recommendation:

- **Recommended Change 2d:** This should be made a separate table and combined with Table 12 PSPS data and moved to the separate PSPS section.

2.4. Utility Ignited Wildfire Fatalities

Issue: Missing accounting of injuries reported from wildfires, and no citation to disaggregated data.

Recommendation:

- R**ecommended Change 2e:** Add new row to report aggregate numbers for injuries attributed to utility-ignited wildfires and cite to Incident Reports for disaggregated data of fatalities and injuries in Appendix.

2.5. Accidental deaths resulting from utility wildfire mitigation initiatives

Issue: Phrasing - Deaths are presumed to be accidental

Recommendation:

- **Recommended Change 2f:** Drop word Accidental, change to Fatalities.

2.8. Number of Structures Destroyed

Issue: Reporting of critical infrastructure damaged not included in prior WMP

Recommendation:

- **Recommended Change 2h:** Add reporting of critical infrastructure damaged or destroyed by wildfires

2.10. Number of utility wildfire ignitions

Issue: No need to disaggregate by HTFD if spatial data already provides information

Recommendation:

- **Recommended Change 2i**: Remove HFTD disaggregation in ignition field.

2.11 Critical Infrastructure Impacted by PSPS

Issue: Normalization numbers raised unnecessary confusion and calculation errors

Recommendations:

- **Recommended Change 2j:** Delete line item for normalization.
- **Recommended Change 2k:** Consolidate with Table 12 as a stand-alone PSPS table.

If all the above changes are adopted, Table 2 would be significantly different. The new example Table 2, reflecting the proposed changes, is below. It only reflects the most current data, normalization is deleted and PSPS data is moved to the PSPS section.

Metric	#	Description	2019	2020	Units	Comments
1. Near Misses	1a	Number of all events (under revised definition)			Number per Year	normalized rows deleted
	1b	Number of wires down (total)			Number per year	
2. Utility Inspection Findings	2a	Number of Level 1 findings, etc.			Number of Level 1 findings	
	2b	Level 2 findings			Number of Level 2 findings.	
	2c	Level 3 findings			Number of Level 3 findings.	
	2d	Circuit miles inspected			Circuit miles	Row added
3. Customer Hours of PSPS	3a -3e				Hours per year	Moved to PSPS section, normalized rows deleted
4. Utility Ignited wildfire fatalities	4a	Fatalities (total)			Fatalities per year	normalized rows deleted
	4b	Injuries (total)			Injuries reported per year	Row added
5. Deaths from mitigation initiatives	5a	Deaths due to mitigation activities			Deaths per year	normalized rows deleted
6. OSHA reportable injuries	6a	Injuries per year				normalized rows deleted
7. Value of Assets destroyed	7a	Value of Assets destroyed by utility ignited wildfire				normalized rows deleted

Metric	#	Description	2019	2020	Units	Comments
8. Structures Damaged	8a	Number of Structures Damaged by utility ignited wildfire				normalized rows deleted
9. Acreage Burned	9a	Acreage burned by utility ignited wildfire				normalized rows deleted
10. Number of Utility wildfire ignitions	10a	Number of Ignitions (total)				normalized rows deleted and removed HFTD specification
11. Critical Infrastructure Impacted	11a	Impacted by PSPS				Moved to PSPS section, normalized rows deleted

Table 3: Additional Metrics –

Issue: Data reported in this table was highly inconsistent among utilities and did not necessarily lead to usable data.

Recommendation:

- WSD to standardize table for utilities to describe additional metrics. Similar to Table 3 in 2020 WMP.

Table 4: Program Targets –

Issue: Great variation among utilities makes for difficulty in assessing items.

Recommendation:

- See program target definition above

Table 5: Accidental Deaths due to Mitigations –

Issue: Phrasing of "Accidental Deaths…". Also Table 5 needs clarification of what is meant by "wildfire mitigation initiatives" in instructions.

Recommendation:

- **Recommended Change 5a:** Change language to "Fatalities & injuries associated with all initiatives reported in the previous WMP."

Table 6: OSHA Reportable Injuries due to Mitigations

Issue: Table 6 needs clarification of what is meant by "wildfire mitigation initiatives" in instructions

Recommendation:

- **Recommended Change 6a:** Change language to "Injuries associated with all initiatives reported in the previous WMP."

Table 7: Methodology - Low priority for change, except it might be better in narrative than in table.

Table 8: Map File Requirements for Weather Conditions

Issue: Mapping data not appropriate for WMP tables but for GIS data

Recommendation:

- **Recommended Change 8a:** Eliminate table; Not appropriate for WMP tables but part of GIS data

Table 9: Map File Baseline

Issue: Mapping data not appropriate for WMP tables but for GIS data

Recommendation:

- **Recommended change 9a:** Same as for Table 8, Eliminate

Table 10: Weather

Issue: Inconsistent weather reporting from utilities. Utilities used proprietary methodologies for weather calculations (e.g., RFW circuit mile days).

Recommendation:

- **Recommended Change 10a:** Clarify Table 10 to use publicly available methodologies for calculating weather variables such as Red-Flag-Warning days to make weather data comparable across utilities.

Table 11 a & b: Key Drivers of Ignition metrics

Issue: Duplicative with Tables 2 and 18.

Recommendations:

- **Recommended Change 11a**: Change to "rate of ignition" from "probability of ignition".
- **Recommended Change 11b:** Combine with 18 into a single table.

***Table 12: Recent Use of PSPS –**

Issue: Utilities defined PSPS events differently, making cross-comparison difficult.

Recommendations:

- **Recommended Change 12a:** Ensure utilities all define "event" the same way (see SDG&E initial filing and revised)[5]
- **Recommended change 12b**: Move to PSPS section

Table 15: Fault Locators –

Issue: This is a lagging technology that is being replaced by better sensors.

Recommendation:

- **Recommended Change 15a:** Eliminate in WMP.

Table 18: Drivers of Ignition 5-year Avg –

Issue: Although important, this is merely a summary of data provided in Table 11a & b.

Recommendation:

- **Recommended Change 18a:** Combine with Table 11a & b; change to "rate of ignitions" as unit.

G. Section 7: Mitigations

Issue: Some columns in table not used in mitigation Tables (21-30).

Recommendation:

- **Recommended Change S7a:** In most tables, the column "Line Miles to Be Treated" is not relevant and could be eliminated. Column "Spend per treated line mile" will be kept.
- **Recommended Change S7b:** In most tables the "Other Risk Drivers Addressed" was not relevant and could be eliminated.

[5] Number of instances where utility operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability, per year. Calculated through a count of unique PSPS outages (switch plans) per year

H. NEW Public Safety Power Shutoff Section 8, including Directional Vision

A proposed structural change is creation of a separate section for Public Safety Power Shutoff data and information as the last chapter of the WMP.

Data for this section would be in tables that previously appeared in the Outcome Metrics Table 2.3 and 2.10, in Table 12, of the WMP and in several tables that were part of the Supplemental Data Request (SDR):

- Table 2a Percent of Customers impacted by PSPS
- Table 5b Number and impact of PSPS
- Table 11 PSPS Events
- Table 12 Ignitions avoided by PSPS
- Table 13 a-c Frequency, Scope and Duration of PSPS

In addition to the above, new metrics should be added regarding community outreach of PSPS. The following metrics should be reported quarterly at the bottom of the PSPS metrics section if not reported earlier in the tables above –

a. # of customers impacted by PSPS (if multiple PSPS events impact the same customer, count each event as a separate customer)
b. # of medical baseline customers impacted by PSPS (same counting method as a)
c. # of customers notified prior to initiation of PSPS event (if customer notified for multiple PSPS events, count each event as a separate customer contact. Only count a customer once per event if contacted multiple times regarding the same PSPS event)
d. # of medical baseline customers notified prior to initiation of PSPS event (same counting method as c)
e. % of customers notified prior to a PSPS event impacting them
f. % of medical baseline customers notified prior to a PSPS event impacting them

I. NEW CPUC Directive:

In addition, a recent Commission decision in the PSPS rulemaking (D.20-05-051) ordered:

- "Beginning in 2021, each electric investor-owned utility Wildfire Mitigation Plan shall include specific short, medium, and long-term actions the utility will take to reduce the impact of and need for de-energization events to mitigate wildfire risk."

- **Recommendation for Directive:** Move existing section 4.4 from 2020 WMP Guidelines to PSPS section, keep instructions as is for narrative and table, but require narrative be organized under subheadings for short (1 year), medium (3 years), and long-term (10 years) plans.

J. New WMP Directive: Citing relevant statutes and orders in narrative and initiatives

Issue: In previous WMP reports, references to relevant statutes, orders, and proceedings were missing or placed in disparate locations.

Recommendation:

- **Recommended change 1**: Throughout WMP, relevant state and federal statutes, orders, and proceedings should be cited where relevant (title of statute in parentheses next to comment, or placed in relevant area in table), with a brief description or summary of the relevant portion of the statute provided in the appendix.

Wildfire Safety Advisory Board

Recommendations for Developing the SHEUR Threshold

AGENDA

I. Introduction

The SHEUR Threshold

II. An Illustrative Example

⚠ *Dense material coming…*

III. Q&A / Next Steps

Objectives

- Develop a methodology for determining risk reduction & System Hardening for Electric Utility Resiliency (SHEUR) threshold so that IOUs will, transparently, be able to determine mitigations to reduce the risk of wildfire & avoid the use of PSPS.

- Develop WSD's capacity to determine if IOU wildfire mitigation expenditures are the most cost effective by requiring the IOUs to consider wildfire risk & PSPS risk in mitigation project RSE calculations to maximize the benefit to the people of CA.

WSAB Recommendations

Combine recommendations 2.1 & 4.1 to create the objective of the WMP RSE analyses

2.1: Risk Spend Efficiency Analysis Required for Each Mitigation Measure

- The Board recommends that the 2021 WMP Guidelines require utilities to complete a Risk Spend Efficiency (RSE) analysis for each mitigation measure, at a circuit level, so that each measure can be considered individually, in aggregate, and against each other, to determine the most appropriate wildfire mitigation effort for each circuit section.
- The Board recommends that the 2021 WMP Guidelines require PSPS to be treated as a risk for the purposes of the RSE calculations in order to encourage utilities to allocate resources in a way that prioritizes reducing the number, scope, duration, and reenergization timeline of PSPS events.

4.1 Develop an Electric Utility Resiliency and Risk Reduction Threshold

- The Board provides the following guidance that the WSD and stakeholders begin developing a new System Hardening for Electric Utility Resiliency (SHEUR) threshold, that sets an acceptable level of electric operation risk and establishes the risk reduction that a utility should assume so that it can design its systems accordingly. The future demonstration of compliance with the newly developed SHEUR threshold could become an achievable condition of approval of a utilities' WMP.

Why a SHEUR Threshold is Necessary?

- There is no clear regulatory standard for how IOUs identify and quantify wildfire risk at this time.

- There is no established acceptable level of operational risk an electrical utility should assume before initiating a PSPS.

Steps to Meeting Objectives

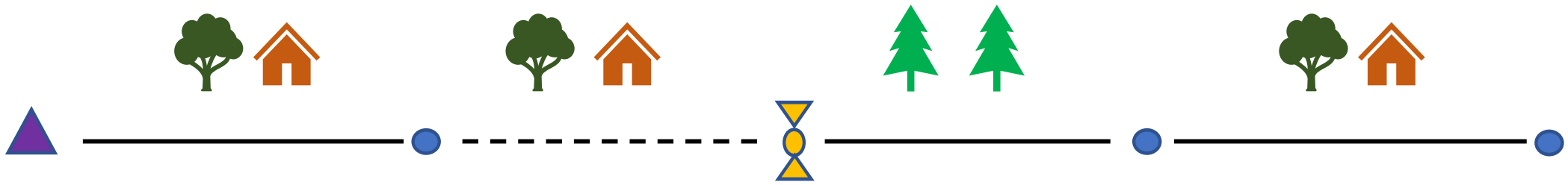
1. Develop risk profiles for each type of electrical utility asset & modifiers for factors such as construction, topography, & wind.
2. Develop methods for wind event projections & wildfire consequence mapping.
3. Using one and two, require IOUs to analyze their grids to determine circuits that have unacceptable risk of wildfires & consequences (and therefore PSPS experiences).
4. Require IOUs to analyze the circuits with unacceptable risks & use RSE calculations to determine the most cost-effective application of wildfire mitigation resources to decrease wildfire risk & to exclude people from PSPSs.

Illustrative Example

- This example assumes a methodology to illustrate the use of the recommended tools of quantified risk, a SHEUR safety threshold, & cost benefit analysis at a circuit/project level. The methodology is *not* the recommendation. There are other methodologies that may be superior. The purpose of this illustration is to demonstrate the utility of the recommended tools.

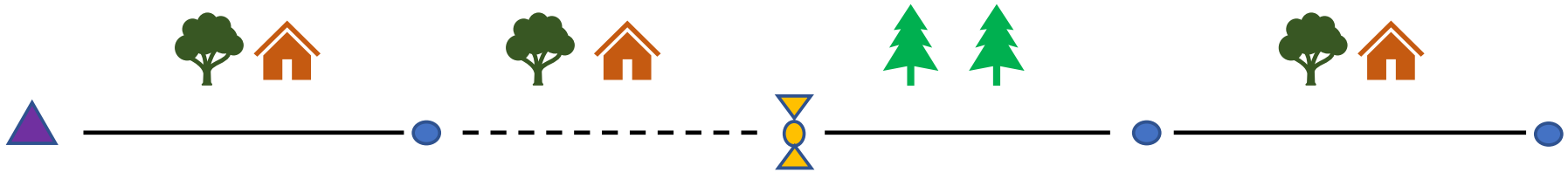
- The Transmission System is not modeled in this example, other than that it is not rated to operate safely below the SHEUR threshold for very high winds, and, consequently, is subject to PSPSs. The exclusion of the Transmission System in the example does not mean that it is excluded from the application of the recommendation's principles. Application of these principles may show that transmission mitigations may have higher RSE values in reference to wildfire mitigation and PSPS avoidance.

Illustrative Circuit Section



	Conductor	Construction	Pole Height	Topography	# of Customers
Segment 1	uncovered	normal	low	semi urban	1
Segment 2	underground	normal	low	semi urban	1
Segment 3	uncovered	normal	low	wooded	0
Segment 4	uncovered	normal	low	semi urban	1

Wind Projection & Consequence Mapping



Wind Projections	
Very High Winds	1 event
High Winds	3 events
Low Winds	all other times

Consequence Mapping	
Very High Winds	High consequences for all 4 segments
High Winds	High consequences for all 4 segments
Low Winds	Low consequences for all 4 segments

Asset Risk (in wildfires per unit of asset, per operational hour)

	Construction		Pole Height		Topography		Wind Profile		
	Normal	*Spaced*	*Low*	*High*	*Wooded**	*EVM***	*Very High*	*High*	*Low*
Overhead	0.0004	0.0006	0.0009	0.0007	0.02	0.008	0.008	0.004	0.004
Underground	0.000008	0.000005	0	0	0.0046	0.0006	0.000006	0.000006	0.000006
Overhead & Covered	0.0003	0.00007	0.00001	0.0007	0.00064	0.002	0.009	0.0006	0.0006

* Standard vegetation management compliant with GO95

** Enhanced Vegetation Management

Analysis of Circuit 1

Analysis

- Using the SHEUR risk chart, a wildfire incident rate can be determined for each line segment during low, high, & very high wind events. It should be noted that low wind is not projected to be capable of high consequence fires. Also, the circuits will not experience very high wind events (> 55 mph) since the source of the circuit will be de-energized since the transmission line is not rated to operate during very high wind events.
- The incident rates of segments 1,3, & 4 are above the SHEUR threshold during high wind events & segment 2 is below the SHEUR threshold. During high wind events segments with incident rates above the SHEUR thresholds will be de-energized as part of a PSPS. Also, since segment 1 is the source for segment 2, when segment 1 is de-energized segment 2 will also be de-energized.

Results

Projected Wildfires = (Sum of segments IR)*(operations hours-PSPS hours) = Z wildfires, none high consequence

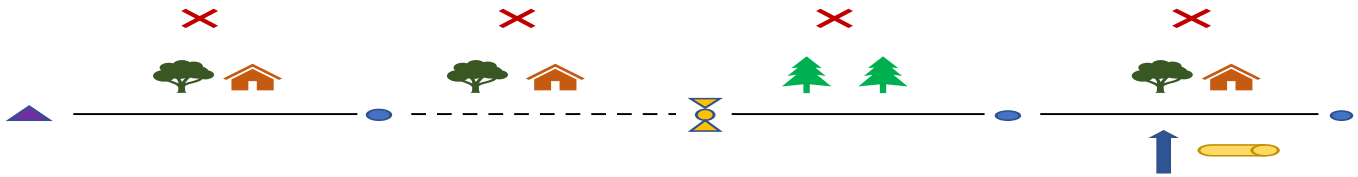
Projected PSPS = (3 high wind events + 1 high wind event) X (3 people) = 12 PSPS experiences

Wildfire Mitigation Measures

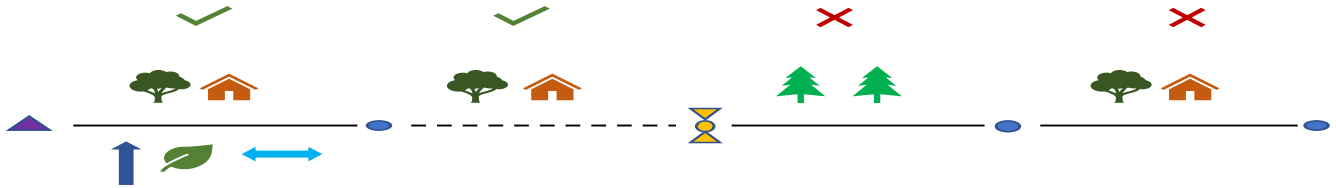
Mitigation Type	Cost
Undergrounding	$$$$$$
Covered conductors	$$$$$
Spaced conductors	$$
Increased pole height	$$
Enhanced vegetation management	$

Mitigation Projects

Project 1



Project 2



Legend

- Power on
- Power off
- EVM
- High pole
- Covered conductor
- Spaced conductor

Mitigation Project 1

Mitigations
- Segment 4: increase pole height $$
- Segment 4: install covered conductor $$$$$

  Total cost: $$$$$$$ (7)

Analysis
- Segment 4's incident rate has been reduced to below the SHEUR threshold.
- Segments 1 & 3 still have high risk incident rates above the SHEUR threshold and high wildfire risks with high consequences. During the 3 projected high wind events, electrical power will need to be shut down.
- Since segment 4's source are the 2 high risk segments (1&3), there are still 4 PSPS events projected, 1 transmission and 3 distribution, affecting all 4 segments and all 3 people.
- Since the power will be shut down to segment 4 during the high-risk wind events and very high-risk wind events, there is no high consequence wildfire mitigation benefits from Project 1.

Results
- Projected PSPS Event avoidance: none
- Projected wildfire avoidance = *X*, none high consequence wildfires
- RSE = (*X* wildfire avoidance, none high consequence + 0 PSPS avoidance / $$$$$$$) = *Low efficiency*

Mitigation Project 2

Mitigations

- Segment 1: increase pole height to high $$
- Segment 1: replace with spaced conductor $$
- Segment 1: enhanced vegetation management $

  Total cost: $$$$$ (5)

Analysis

- Segment 1's incident rate has been reduced to below the SHEUR threshold.
- Since segment 2 is already below the SHEUR threshold because of undergrounding, both segments 1 & 2 can now be left in power during high wind events even though they are still high consequence segments.
- Wildfire risk is not reduced for segments 3 & 4 so PSPS events are not reduced for those segments. PSPS events (3 distribution & 1 transmission) will affect 1 person 4 times.

Results

- Projected PSPS event avoidance: 3 people will not experience 3 PSPS events; 9 PSPS experiences avoided
- Projected wildfire avoidance = *X*, including high consequence wildfires
- RSE = (*X* wildfire avoidance, including high consequence + 9 PSPS experiences avoided / $$$$$) = *High efficiency*

Projects Evaluation

Project 1

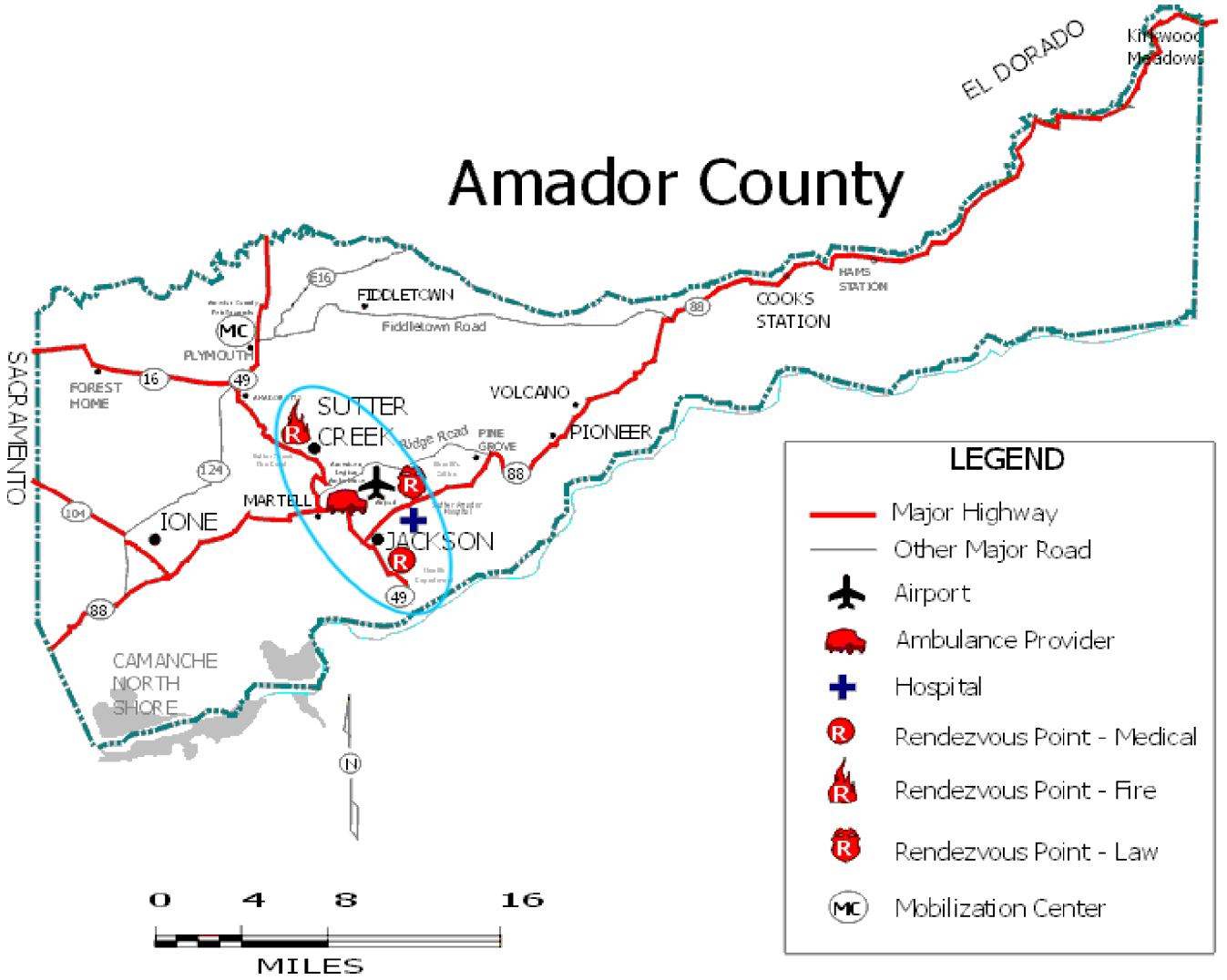
Did not avoid PSPS experiences & did not avoid high consequence wildfires since it would be de-energized when It was capable for initiating a high consequence.

Project 2

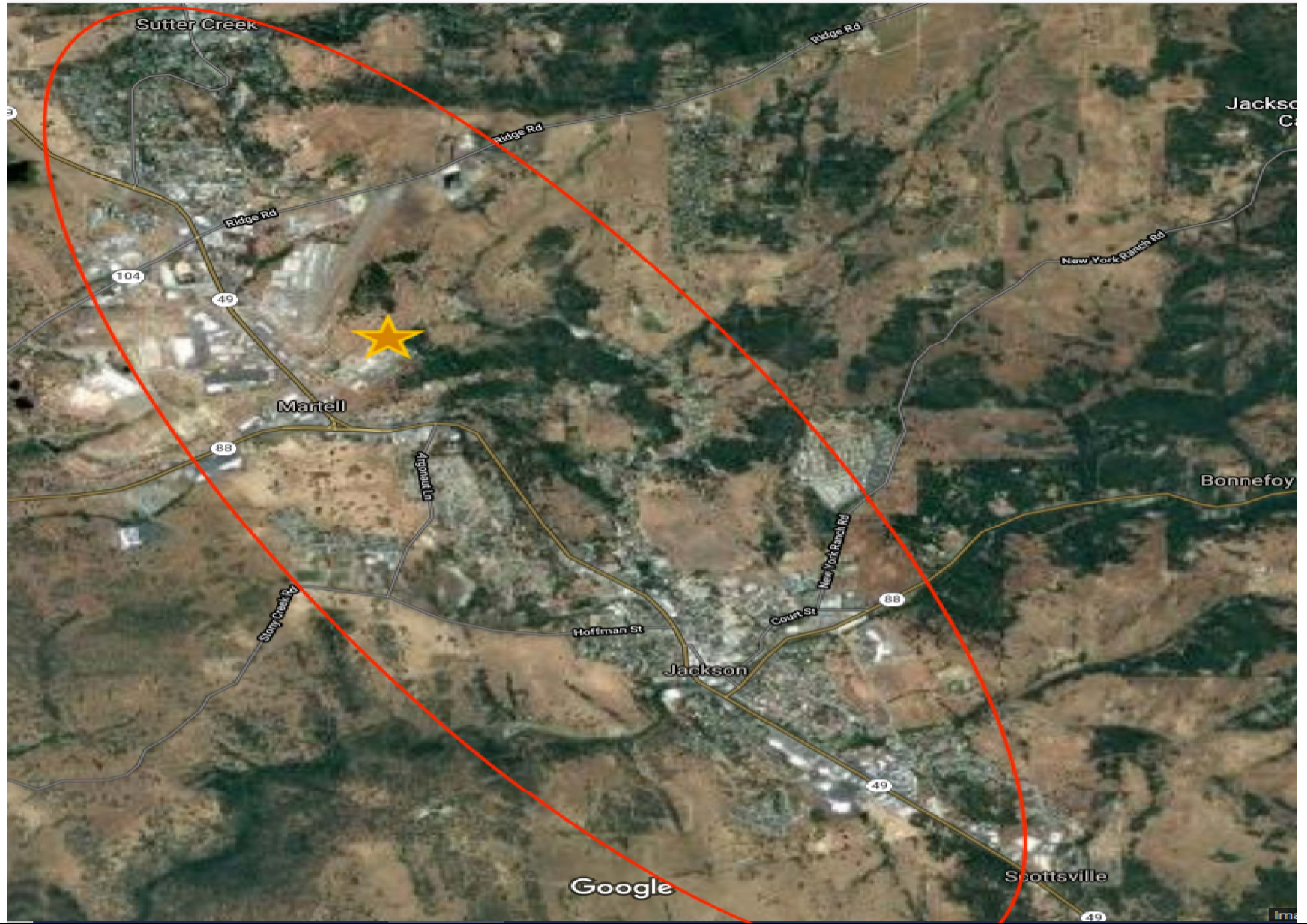
Avoided low and high consequence wildfires & 75% of PSPS experiences. The mitigation of high consequence fires should be prioritized over low consequence fires.

Project 2 is more efficient

Case Study: Amador County



Case Study: Amador County



California Wildfire Safety Advisory Board

Case Study: Amador County

7 mile stretch on Hwy 49 from Sutter Creek to South Jackson

- Significant percentage of the population
- Small fraction of the circuit miles in the county

Major employers & facilities:

- Sutter Amador Hospital
- Jackson Jr. High School, Argonaut High School etc.
- Amador County Jail
- Walmart
- Kit Carson Nursing and Rehab

Additional Considerations

Initially the limitation of resource allocation will mean that parts of the grid that are capable of being SHEUR zones will need to be prioritized. Thought should be given to providing guidance to the IOUs and consider balancing factors such as:

- Environmental justice issues
- Disproportionate impact on disadvantaged communities
- Location of medically vulnerable residents
- Community services
  (hospitals, communications, food distribution, etc.)
- Municipal services & infrastructure (police, fire depts etc.)
- Economic impacts

Summary

Developing a methodology for risk reduction & a SHEUR threshold will enhance transparency & accountability by:

- Making the process by which utilities determine wildfire risk and deploy wildfire mitigations more transparent
- Enabling the WSD to confirm that projects maximize wildfire mitigation expenditures.

Q&A/ Next Steps

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California Public Utilities Commission

Wildfire Safety Division
Draft Recommendations for Developing a Safety Culture Assessment Process

August 12, 2020

STAFF REPORT

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EXECUTIVE SUMMARY

Public Utilities Code Section 8389 (d)(4) directs the California Public Utilities Commission (CPUC), after consultation with the Wildfire Safety Division (WSD), by December 1, 2020, to "adopt and approve a process" for the WSD "to conduct annual safety culture assessments for each electrical corporation." This annual assessment differs from the Safety Culture investigations that the Commission is required to conduct for all utilities on a five-year basis, but the principles applied in those proceedings are useful as overarching guidance to a WSD process that would rely on the foundational principles of safety culture when evaluating wildfire safety

This document presents the WSD's proposed annual cultural safety assessment process. The WSD's proposed annual assessment process relies on a three-part utility submission:

1. Response to specific guidelines, which would include demonstrations of compliance with certain Safety Governance requirements that have been established by the Commission and the Legislature,
2. Utility-provided self-assessments of Safety Culture practices and policies
3. A process, potentially a survey, to solicit feedback from relevant employees on their assessment of the electrical corporation's Safety Culture

To supplement this submission, the WSD would conduct interviews and observational visits as needed. As part of its evaluation, the WSD would monitor certain safety performance metrics related to wildfire risk and mitigation.

Because the Safety Culture assessment is a component of the Safety Certificate process also required by Sec 8389, the WSD's annual evaluation will be coordinated with the review of the Wildfire Mitigation Plans and other components related to an electrical corporation's Safety Certificate application.

Through this staff proposal and accompanying presentations in the August 12, 2020 workshop, the WSD solicits feedback from stakeholders on the most prudent path forward to leverage the Safety Culture Assessment process to achieve the WSD's mission. This proposal is organized into three parts:

1. **Background**, which covers the statutory mandates to guide WSD's approach to Safety Culture Assessments and a history of proceedings and other CPUC input regarding Safety Culture for utilities
2. **Vision and scope,** which covers the WSD's broad vision and objectives for its Safety Culture Assessments
3. **Proposed approach**, which covers the overarching components for the WSD's Safety Culture Assessment process.

Background

Assembly Bill 1054 (Holden, Chapter 79, Statutes of 2019) establishes a set of requirements for electrical corporations to obtain a Safety Certificate as well as specific timeframes for the WSD and CPUC to enact associated policies. Further, AB 1054 requires the WSD to develop, and the CPUC to ratify, "a process for the division to conduct annual safety culture assessments for each electrical corporation." In addition, the bill outlines several Safety Culture related requirements for an electrical corporation's Board of Directors and corporate structure.

AB 1054 builds upon several CPUC decisions. In two separate Investigations into utility Safety Culture, for Pacific Gas & Electric[1] and for Southern California Gas Company[2] the Commission enunciated certain minimal expectations for utility safety culture:

> "A public utility whose organizational culture and governance prioritize safety, makes safety the primary objective of the entire organization, encourages employees to report safety concerns with non-punitive outcomes, and that achieves a positive record of safe operation, can be described as possessing a high-functioning safety culture.
>
> "Based on these expectations, a positive safety culture includes, among other things:
>
> - A clearly articulated set of principles and values with a clear expectation of full compliance.
> - Effective communication and continuous education and testing. "Employees will do it right sometimes if they know how. They're more likely to do it right every time if they fully understand why."
> - Uniform compliance by every individual in the organization, with effective safety metrics, recognition, and compensation, and consequences or accountability for deviating or performing at, above, or below the standard of compliance.
> - Continuous reassessment of hazards and reevaluation of norms and practices." [3]

In addition, the NorthStar Consultant's report in the PG&E Safety Culture Investigation (I.15-08-019) described a strong safety culture as follows:

> "A strong safety culture requires commitment and accountability throughout an organization. A company's leadership and executive management must display a positive commitment to safety that is recognized throughout the organization. This commitment must be evident in the actions of management and the support they provide to the workforce. The organization must provide its people with the tools, resources, training and oversight necessary to ensure safe operations. Rules and requirements must be clear and consistent. Management must take a thoughtful approach to incidents and the implementation of new rules and standards. Employees should feel accountable for their own safety and the safety of their co-workers. They should feel comfortable stopping work during unsafe conditions or stepping in if they see another employee placing themselves, others or the public at risk. Employees should feel

[1] OII 15-08-019, Order Instituting Investigation on the Commission's Own Motion to Determine Whether Pacific Gas and Electric Company and PG&E Corporation's Organizational Culture and Governance Prioritize Safety.

[2] OII 19-06-014, Order Instituting Investigation on the Commission's Own Motion to Determine Whether Southern California Gas Company's and Sempra Energy's Organizational Culture and Governance Prioritize Safety

[3] I.19-06-014, pgs 3-4.

comfortable reporting potential hazards and incidents without fear of retribution as these can provide valuable lessons learned to improve safety practices. Disciplinary procedures should be consistently applied, recognizing the difference between human error, process defects, insufficient controls and a wanton disregard for safety rules. . .

"The success of a safety culture depends upon leadership committed to making safety its first priority. This is particularly true in company such as utilities where there are many layers of employees. The commitment to safety must extend to every employee and contractor in the organization, with consistent execution of principles, values and norms to foster a strong safety culture."[4]

[4] docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M235/K399/235399881.pdf, pp. I-3 and I-4.

Scope and Vision

The WSD thinks of culture as "how work gets done in an organization" and recognizes that culture influences outcomes throughout the organization, from executives down to the frontline. Frontline behavior is crucial for safety outcomes – for example, whether employees feel comfortable raising concerns, perform reliably without mistakes, or follow procedures affects the effectiveness of wildfire mitigation activities and resulting risk reduction profoundly. However, this does not exist in a vacuum. Leadership at all levels influences frontline behavior, for example by advocating for employees, setting safety as a number one priority in an organization, and "walking the talk". To create and sustain an effective culture, an organization must have the appropriate foundation in place, including both sustaining systems and structure. Sustaining systems include selection and development, rewards and recognition, safety strategy, and performance management – setting and enforcing expectations. Structure and governance up through senior leadership and the Board of Directors is also essential.

Given the broad scope of elements which influence Safety Culture, the WSD proposes a focused scope for its Safety Culture Assessment process that assesses elements related to wildfire safety. The WSD intends to work with the Commission to ensure that its focused Safety Culture Assessment dovetails with the Commission's broader Safety Culture evaluations recognizing that wildfire safety cannot be viewed in a vacuum. How a utility operates in relation to elements of wildfire safety is indicative of its broader Safety Culture and vice versa. To assess culture, the WSD proposes to only address elements of culture which are relevant for safety outcomes broadly (not limited to wildfire) and limit its assessment to employees who conduct activities related to wildfire safety as defined by WMP initiatives.

The WSD has an ambitious vision for its Safety Culture Assessment. Specifically, the WSD aspires to do the following:

1. Assess a baseline for culture against which improvement can be measured over time, rather than a point-in-time, static assessment
2. Set the foundation for data-driven insight informed by known outcome metrics as well as culture metrics
3. Ground its Safety Culture Assessment in cultural drivers of wildfire risk, and improve its understanding of how culture influences wildfire outcomes year over year
4. Focus on wildfire safety, but consider cultural elements which are relevant to broader safety outcomes
5. Foster continuous and collaborative improvement and learning

Proposed Approach to Assessing Safety Culture

The WSD's proposed annual assessment process is considering reliance on four elements, of which (a), (b), and (c) would be captured within a corresponding three-part utility submission:

a) Guideline Response: Utility demonstrations of compliance with certain Safety Governance requirements that have been established by the Commission and the Legislature,
b) Management Self-Assessment: Evaluation of utility-provided self-assessments of Safety Culture practices and policies,
c) Use of employee feedback and observations through a survey or another tool to measure behaviors (and motivations) throughout the organization,
d) Interviews and observational visits, as needed, and
e) Monitoring of certain safety performance metrics related to wildfire risk and mitigation.

The following sections of this proposal provide further thought from the WSD about the approach to achieve the intent of the identified four elements. Each section is accompanied with associated recommendations and specific questions for stakeholders to consider when providing comments.

a) Guideline response: Assessment of Safety Governance Requirements Derived from Statute and Commission Proceedings

In Public Utilities Code (PUC) section in Sec 8389 (e), the California Legislature proscribed two elements related to Safety Culture, among other elements, for an electrical corporation to apply for a Safety Certificate:

(3) The electrical corporation has established a safety committee of its board of directors composed of members with relevant safety experience.

(5) The electrical corporation has established board-of-director-level reporting to the commission on safety issues.

These, therefore, represent minimum criteria for a Safety Culture assessment related to the electrical corporation's governance.

In addition, PG&E Chapter 11 Reorganization Plan decision (D.20-05-053) established certain requirements in the area of Safety Governance, both at the Board of Directors and Senior Management levels. The WSD proposes generalizing these requirements to all electric utilities, as described below.

Board of Directors Safety Committee

The PG&E decision specifically assigned responsibility of these areas to the Safety Committee:

- Wildfire Mitigation Plan,
- Public Safety Power Shutoff (PSPS) program,
- Compliance with Safety & Operational Metrics,
- Periodic reporting to boards of directors and commission staff.

- Selection of individual members of the committee would incorporate consultation with, or approval of, the State and Commission staff.

While the PG&E Reorganization Plan decision allowed the utility/corporation to maintain its Safety and Nuclear Oversight Committee as the required broad committee, the WSD is proposing that other utilities will be required to demonstrate establishment of a board, with the responsibilities listed above.

Potential validation of this Governance element could take the form of WSD review of a) the Safety Committee Charter, b) information presented to the Board by the Safety Committee, c) details of items requiring Safety Committee approval, versus items requiring full Board Approval.

The Board of Directors Safety Expertise Criteria

Directors who meet one or more of the safety expertise criteria would serve on the Safety subcommittees. Safety Expertise criteria should include the following:

- Specific substantial expertise related to wildfire safety, wildfire prevention, and/or wildfire mitigation.
- Gas safety expertise (outside of scope of WSD safety culture review)
- Specific substantial expertise related to enterprise risk management, including cyber security and/or experience with nuclear safety.

For the purposes of Safety Culture/Certification, the WSD recommends that each utility be required to recruit and appoint directors who meet the above criteria for wildfire safety, and those members should also be appointed to the Safety Committee.

Chief Safety Officer

The PG&E decision also required separate (but equal) executive positions Chief Safety Officer (CSO) and Chief Risk Officer (CRO). CSO duties include both public and workplace safety.

Both CRO and CSO get "direct reporting from safety officers in the field… both CRO and CSO should have regular contact with PG&E employees and contractors working in the field, and both CRO and CSO should be empowered to report directly to the [Safety] Committee and CEOs of PG&E and PG&E Corp.

The WSD proposes that utilities should be required to establish a position for Chief Safety Officer (or equivalent) empowered to obtain direct reports from field personnel and in turn report directly to the safety Committee.

The WSD recommends that the CSO should be the utility executive who holds overall accountability for the annual Wildfire Mitigation Plan described in Sec 8386 (c) (1).

Question for Workshop: What educational experience, skills, training, knowledge, and expertise should a Chief Safety Officer possess to qualify them as been knowledgeable about the diverse elements of a Safety Culture?

Question for Workshop: Are these requirements, taken from the Commission's decision approving PG&E's Chapter 11 Bankruptcy Plan and related documents, appropriate for other utilities? If not, why not? Are they adequate to demonstrate a Safety Culture at the top levels of Utility management?

b) Management Self-Assessment of Utility Safety Culture

As described previously, the Commission has listed several elements of a positive Safety Culture, including: a clearly articulated set of principles and values with a clear expectation of full compliance; effective communication and continuous education and testing; effective safety metrics, and continuous reassessment of hazards and reevaluation of norms and practices.

While WSD could require a set of principles and goals, proving adherence to it is more difficult. One way to do so would adopt the **Maturity Model** construct, in which the WSD establishes criteria and elements of meeting the criteria, with expectation that the utility's processes will evolve and mature over time.

The Maturity Model was introduced in the 2020 WMP evaluation process to look beyond utility proposals for wildfire mitigations to assess how each company is progressing toward a higher level of performance in 52 categories of capabilities. Each category has several sub-elements that are used to assess how advanced the company is. The utility provides a self-assessment, which is scored based on a WSD approved algorithm, as well as a projection of improvement over a three-year time frame.

In the 2020 WMP, this model was employed to provide a sense of each utility's perceives strengths and goals in the capabilities. The entire model is quite complex and detailed for the purposes of a Safety Culture assessment, but there are relevant components.

For example, capabilities associated within Organizational Learning and Emergency Planning may have direct applicability to Wildfire Safety Culture. The WSD proposes that a greatly streamlined maturity model may be adopted for the Safety Culture assessment, using a targeted set of fewer criteria for evaluation.

Question for Workshop: Which elements of "organizational foundation" are most important for the WSD to measure?

Question for Workshop: How should the organization demonstrate that it is directing adequate resources and planning appropriately to promote accountability and achieve safety performance?

c) Tools such as surveys to measure employee behavior

Employee surveys are a frequently used tool for assessing whether and how corporate policies are being viewed and acted upon throughout the organization. For example, San Diego Gas & Electric reports that it conducted a biannual employee survey related to safety.

For the purposes of the WSD's Safety Culture assessment, any employee survey should be focused on wildfire safety policies and practices and targeted to those parts of the utility that are directly involved in wildfire mitigation and emergency planning.

Potential areas of questions might include but would not be limited to:

- Do employees feel management and the broader organization values safety?
- Do employees follow procedures related to safety?
- Do employees feel comfortable raising safety concerns?
- Do employees believe they know how to react in an emergency?
- Do employees believe that their teams know how to work together effectively?
- Do employees believe that they can anticipate issues, and that their management effectively seeks out weak signals or anomalies?

However, even surveys that are limited in scope and scale require extensive resources and staff time to properly conduct and evaluate responses.

Question for Workshop: What elements of safety culture (both leadership influence and true frontline behavior) are most important to measure as part of this assessment?

Question for Workshop: How can the WSD most efficiently and effectively collect reliable information about how wildfire mitigation work gets done by employees throughout a utility organization (beyond just a narrative from senior leadership)?

d) Interviews and observational visits

The WSD proposes to supplement the information collected in utility submissions described above with interviews and/or observational visits. These would add nuance and depth to the WSD's understanding of each utility's context and goals, helping the WSD to conduct a more holistic and accurate evaluation.

The WSD proposes to conduct these in a targeted and focused way in 2021. The WSD might adjust scale and scope in future years as the safety culture assessment process evolves.

e) Performance metrics

The Commission's evaluation of safety-related performance metrics is an ongoing process in several proceedings, including Risk Assessment and Mitigation Phase (RAMP) and Safety Model Assessment Proceeding (S-MAP) portions of utility General Rate Cases. For the purposes of Safety Culture Assessment, the WSD will evaluate both **outcome metrics** and **culture-specific performance metrics.**

Outcome metrics: The WSD already requires collection of a wide array of data and outcome metrics as part of the Wildfire Mitigation Plans. As an effective Safety Culture is important to improve wildfire-related outcomes, the WSD proposes to integrate these metrics into its Safety Culture Assessment process.

The use of these metrics should be directed as a measure of how well the utility is driving down the aggregate risk from wildfires and Public Safety Power Shutoffs, and to reduce or eliminate risks of deaths and serious injuries to employees, contractors and the public.

Below are some of the wildfire safety metrics already being collected that could be used for WSD's assessment:

- Ignitions and Trends of Ignition Drivers
- Wires Down incidents
- Faults
- Near Misses
- Inspection Findings
- Customer Outages from Public Safety Power Shutoff events (duration and extent)
- Injuries/fatalities related to wildfires, wildfire mitigation initiatives and PSPS
- Acres burned by utility involved wildfires

Question for workshop: Aside from these metrics, what other metrics would be useful and appropriate to assess utility wildfire safety outcomes which are influenced by Safety Culture?

Culture metrics: The WSD also proposes to assess specific elements of culture and organizational foundation directly through the submissions described above (Guidelines, Management Self-Assessment, Employee Survey, and Interviews). Doing so would allow the WSD to track improvement across various elements of culture and organizational foundation directly, and in turn drive better understanding of how these affect the outcome metrics described above.

Question for workshop: Which specific culture measures or metrics are most tightly linked to wildfire safety outcomes? How should the WSD approach assessing these in a uniform way across utilities through the submissions described?

Attachment 5:

August 26, 2020 PCF Comments on WSD Staff Proposal on Changes to WMP Requirements and Metric Tables

The Protect Our Communities Foundation
4452 Park Boulevard #309
San Diego, California 92116

August 26, 2020

California Public Utilities Commission
Attn: Caroline Thomas Jacobs, Director
Wildfire Safety Division
505 Van Ness Ave., 4th Floor
San Francisco, CA 94102

Sent Via Email (wildfiresafetydivision@cpuc.ca.gov)

Re: The Protect Our Communities Foundation's Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing the SHEUR Threshold

To Whom It May Concern:

The Protect Our Communities Foundation (PCF) provides these comments on the Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables (WMP Staff Proposal), the Wildfire Safety Division Draft Recommendations for Developing a Safety Culture Assessment Process (Safety Culture Staff Proposal), and the Wildfire Safety Advisory Board (WSAB) Recommendations for Developing the SHEUR Threshold (SHEUR Proposal).

PCF generally supports the WMP Staff Proposal and the Safety Culture Staff Proposal, as well as the intent behind the SHEUR Proposal. PCF submits that the factual history of the Commission's wildfire mitigation planning and applicable legal requirements render certain recommendations made within the proposals particularly necessary. Others, such as the risk-related proposals which PCF details below, propose to recast already existing legal requirements as if they were new concepts and thus are likely to do more harm than good by muddying the waters of already existing regulatory and statutory mandates.

I. PCF GENERALLY SUPPORTS THE WMP STAFF PROPOSAL, BUT CAUTIONS THAT ENFORCING EXSITING MANDATES SHOULD BE PRIORITIZED OVER CHANGING THE WMP TEMPLATE FORMATS.

Below, PCF recommends that the WMP Staff Proposal be revised so as not to diminish existing requirements related to RSE calculations, the utilities' obligation to establish effectiveness of proposed wildfire risk reduction activities, or WSD's and the Commission's recent findings regarding the relationship that the utilities failed to demonstrate between wildfire risk reduction activities and reduction of PSPS events. PCF also recommends that the WMP Staff Proposal focus on enforcement efforts and avoid rendering public participation more difficult. Additionally, PCF commends the WMP Staff Proposal for directing the utilities to focus on complying with existing legal and regulatory requirements in their 2021 submittals.

A. The WMP Staff Proposal Should Be Revised So as Not to Diminish Existing Requirements Related to RSE Calculations.

PCF agrees with the WMP Staff Proposal's recognition that projected expenditures comprise a necessary component of the necessary risk-spend-efficiency (RSE) analysis[1] and does not oppose changes to the form, but submits that WSD should not shoulder the responsibility for *the utilities'* failures to provide RSEs for all wildfire risk reduction activities. When the WMP Staff Proposal uses language that it "will be more direct" in requiring RSEs, or that utilities "will be required to report their methodology behind RSE numbers, including data used and calculations conducted to reach RSE in the WMP," the WMP Staff Proposal erroneously and inaccurately diminishes existing mandates already in place - mandates that the Legislature expressly incorporated into the wildfire mitigation statutes.[2]

Last year, after reviewing the utilities' 2019 WMPs, the Commission in D.19-05-036 described the utilities' risk assessments as a "black box with insufficient description of the supporting information and rational for proposed programs."[3] Acknowledging that a "'trust us, we know what we are doing' approach to risk assessment is not appropriate given recent wildfire activity,"[4] the Commission ordered the utilities in their 2020 WMPs to comply with Section 8386's mandate that WMPs must "include all relevant wildfire risk and risk mitigation information" required by the Commission's S-MAP and RAMP decisions, including the Risk-Spend Efficiency analysis required by D.18-12-014.[5]

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[1] WMP Staff Proposal, p. 7 ("Although the WMP is not the proper forum for approving projected expenditures or finding them to be reasonable for cost recovery purposes, understanding expected costs of mitigation is fundamental to the analysis of effectiveness and feasibility, as well as an essential component of the risk-spend efficiency estimations required for all mitigations.").
[2] WMP Staff Proposal, p. 8; Pub. Util. Code, § 8386, subd. (c); D.19-05-036, p. 28-29, p. A2.
[3] D.19-05-036, p. 29, fn. 42.
[4] D.19-05-036, p. 29, fn. 42.
[5] D.19-05-036, p. 28-29 ("The WMP statute refers to the Commission's safety-oriented processes carried out during GRCs.[] We interpret the inclusion of those processes to reflect a desire to ensure the safety

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The Commission expressly ordered SDG&E to comply in its 2020 WMP with the Commission's S-MAP and RAMP decisions:

> San Diego Gas & Electric's 2020 Wildfire Mitigation Plan shall use the quantitative risk assessment framework adopted in Decision 18-12-014 in the Safety Model Assessment Proceeding to evaluate and compare the cost effectiveness of each of the mitigations that were under consideration in developing the Wildfire Mitigation Plan. The Wildfire Mitigation Plan shall provide the risk spend efficiency results of the quantitative risk analysis and include an explanation of the Multi-Attribute Variable Framework used and how it was constructed. [6]

This year, the Commission again determined the utilities' WMPs fail to assess and analyze risk properly, and the Commission made express findings which establish that SDG&E failed to comply with the Commission's direct orders contained in D.19-05-039.[7]

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work in GRCs is incorporated into WMPs. We agree that both processes are important to a consideration of the adequacy of utility safety efforts. Our recent decision in the S-MAP/GRC context adopted an approach that prioritizes actions based on their 'Risk-Spend Efficiency.' The approach uses a tool called Multi-Attribute Value Function (MAVF) that provides a single value to measure the combined effects of each mitigation measure on a certain risk event. The process involves performing risk assessments and ranking risks using safety, reliability, and other attributes. This approach provides a means to compare the programs against each other for effectiveness, especially when multiple overlapping programs are proposed for the same assets and intended to mitigate the same risk event (i.e., increased vegetation clearing coupled with installing covered conductor and expanded de-energization practices). Including such analysis in the WMPs would provide the Commission a transparent and effective way to balance overlapping programs in the WMP and assess which programs are needed and effective. As stated above, the statute requires 'all relevant wildfire risk and risk mitigation information that is part of the Safety Model Assessment Proceeding and Risk Assessment Mitigation Phase filings.' This quantitative information is relevant, and the process of conducting these analyses may allow stakeholders to better understand the cost effectiveness of proposed mitigations.").

[6] D.19-05-039, p. 23-24, p. 31 (OP 12).

[7] Resolution WSD-002, p. 19-30, Appendix A, p. A1 ("2020 WMP submissions contain sparse and sporadic detail regarding the RSE of WMP initiatives. RSE calculations are critical for determining whether utilities are effectively allocating resources to initiatives that provide the greatest risk reduction benefits per dollar spent, thus ensuring responsible use of ratepayer funds. Although RSE concepts have been considered for several years through Commission GRCs, utilities still display unrefined and limited abilities to produce such information. Considering that utilities propose to spend billions of dollars on WMP initiatives, not having quantifiable information on how those initiatives reduce utility ignition risk relative to their cost severely limits the WSD's ability to evaluate the efficacy of such initiatives and each utility's portfolio of initiatives, as outlined in 2020 WMPs."); Appendix A, p. A1-A3, A5-A10; Resolution WSD-005, p. 11-12 (SDG&E's WMP "does not adequately address how SDG&E factors its modeling into decision-making, and whether and how it updates its models based on lessons learned. … SDG&E's WMP does not adequately address the details of its resource allocation process. In particular, the WMP lacks details regarding whether and how specific mitigations or initiatives reduce the need to resort to a PSPS event."); *see also* Resolution WSD-005, p. 23-25, 33, 37-38, 43-44, 46, 49.

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The Commission correctly concluded SDG&E's 2020 WMP continues to fail to provide the requisite analysis of risk reduction per dollar spent, and continues to fail to provide sufficient details so as to clearly and transparently reveal the reasons for selecting mitigation activities and the effectiveness of those activities.[8] In order to remedy the utilities' fundamental "[f]ailure to analyze each WMP initiative to determine whether it is an effective use of resources,"[9] the Commission required each utility to demonstrate in an RCP how risk assessment will be applied to each proposed activity in the utility's WMP.[10] SDG&E's recently filed RCP reveals that SDG&E refuses to take the Commission's orders seriously.[11] In short, the utilities are not lacking in direct orders – enforcement of already existing orders is what remains missing.

B. The WMP Staff Proposal Should Not Include Certain Changes Intended to Address the Utilities' Lack of Demonstrated Effectiveness.

PCF appreciates the WMP Staff Proposal's focus on the need for the utilities to establish the effectiveness of their proposed wildfire risk reduction activities. PCF cautions, however, that changing "near misses" to "near ignitions" will likely have the opposite effect than WSD intends.[12] PCF recommends that the WMP Staff Proposal be revised so as to delete this particular change because it provides less, not more, information as to the effectiveness of the utilities' wildfire prevention measures.

C. The WMP Staff Proposal Should Prioritize Enforcement Rather than Adding Lines to Forms or Changing Formats of Documents to Address the Utilities' Failures.

Ratepayers should not be required to pay for wildfire mitigation planning twice – WSD should not feel obliged to re-perform the utilities' statutory obligations when the utilities fail to perform correctly. For example, WSD explains "there were many instances where information was lacking or difficult to find in the WMP," and that "[t]his necessitated a very large volume of Data Requests before WSD could begin verifying that the plans complied with all applicable rules, regulations, and standards, as specified in Section 8386 (d)."[13] In the future, PCF recommends that WSD should not endeavor to do the utilities' job for the utilities. When WSD fills the analytical gaps on the utilities' behalf, ratepayers are essentially having to pay twice – first for the utilities deficiently performing the utilities' statutory function, and then for the WSD to attempt to fix the utilities' deficient performance.

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[8] *Ibid.*
[9] Resolution WSD-002, p. 19.
[10] Resolution WSD-002 Appendix A, p. A3.
[11] The Protect Our Communities Foundation Comments on San Diego Gas & Electric Company's Remedial Compliance Plan (August 10, 2020).
[12] WMP Staff Proposal, p. 13 ("WSD suggests changing 'Near Misses' to 'Near Ignitions' defined as 'Events that manifest in charring, melting, heavy smoke deposits, and/or visible evidence of arching that could indicate enough heat was present, which could have led to an ignition.'").
[13] WMP Staff Proposal, p. 6.

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Additionally, when WSD endeavors to fix the utilities' deficient presentations, WSD disincentivizes the utilities from providing the legally-required transparent, fact-based, and least-cost wildfire mitigation plans. WSD should not naively presume the utilities will provide any more information than the bare minimum of what they know they will be held accountable for. If the utilities know WSD will act as a first-tier safety valve for their analytical, transparency, and data deficiencies, the utilities are highly likely to rely on that first-tier safety valve and shunt off the analysis that they are required to perform and provide instead of submitting adequate WMPs in the first instance.

Instead of spending time and resources endeavoring to add a new row for the utilities to fill out when submitting their WMPs, WSD should focus on enforcement when it identifies issues such as "Missing accounting of injuries reported from wildfires, and no citation to disaggregated data."[14] While PCF does not necessarily object to WSD's proposed changes to the form in Table 2, PCF cautions that the more changes that are made, the more difficult it will be to track the WMPs from year to year.

PCF submits that rather than assuming missing data requires a new row on a form, WSD should consider the utilities' self-interest in resisting disclosure of such data. If the utilities faced meaningful consequences for failing to submit the requisite data, the utilities' self-interest would result in more robust information disclosure the first time. Enforcement of the Commission's requirements from the start would result in less missing data without the WSD staff having to add lines to forms and repeatedly follow up to coax the utilities into providing the required data and analysis, to the benefit of ratepayers and public safety.

D. In Separating Out PSPS Protocols, the WMP Staff Proposal Should Take Care Not to Minimize the Deficiencies Identified Regarding the Utilities' Failure to Assess the Relationship of PSPS and Other Proposed Activities.

The Commission correctly concluded that the utilities' 2020 WMPs were deficient with respect to PSPS protocols. One of the specific examples called out by the Commission consists of the fact that utilities failed to demonstrate the relationship between PSPS events and the rest of their proposed risk-reduction activities.[15] In separating out PSPS events, WSD should take great care not to minimize the deficiencies the Commission has recently identified, which strike at the heart of the utilities' and the Commission's statutory obligations.

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[14] WMP Staff Proposal, p. 14.

[15] Resolution WSD-002, p. 22, 23 ("Considering the rapid expansion of PSPS as a wildfire mitigation measure, and the numerous hardships, inconveniences and hazards created by vast implementation, it is concerning that 2020 WMPs provide minimal to no discussion of how the chosen portfolio of initiatives will allow the utility to achieve its goes for reducing PSPS impacts."); Resolution WSD-005, p. 12 ("SDG&E's WMP does not adequately address the details of its resource allocation process. In particular, **the WMP lacks details regarding whether and how specific mitigations or initiatives reduce the need to resort to a PSPS event**.") (emphasis added).

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Additionally, PCF submits that reducing the need for PSPS events at all time-frames required by D.20-05-051[16] would be the natural result of requiring the Utilities to adhere to the Commission's risk-based decision-making framework – consisting of the decisions that the Commission and WSD astutely determined the 2020 WMPs fail to adhere to as discussed above.

E. The WMP Staff Proposal Should Ensure Public Participation Does Not Become More Difficult.

The extraordinary number of wildfire-related proceedings and reporting requirements render public participation increasingly difficult already. While PCF appreciates the need to collect data regularly, the statement in the WMP Staff Proposal that "Much of the data currently reported in the WMPs will therefore come outside of the WMP submission itself"[17] raises concerns. PCF recommends that WSD require that all the data be provided in a manner which the public can use and understand, and WSD should ensure a central location for all data remains accessible to the public at all times.

F. PCF Supports the New Directive Requiring the Utilities to Include Legal References Throughout the WMP.

PCF supports the new WMP directive that "relevant state and federal statutes, orders, and proceedings should be sited where relevant" throughout the WMP, "with a brief description or summary of the relevant portion of the statute provided in the appendix."[18] PCF has consistently advocated that existing robust legal and regulatory requirements should guide the utilities' wildfire mitigation planning and the Commission's review of the utilities' wildfire mitigation planning. This requirement should encourage the utilities to shift their focus toward critical compliance requirements; and will assist the Commission's WMP review by exposing noncompliant utilities that fail to cite to the applicable statutory and regulatory mandates.

II. THE SHEUR PROPOSAL IS BASED ON ERRONEOUS ANALYSES OF ESTABLISHED STATUTORY AND REGULATORY REQUIREMENTS.

PCF disagrees with the statements in the SHEUR proposal which suggest there "is no clear regulatory standard for how IOUs identify and quantify wildfire risk at this time" and that there "is no established acceptable level of operational risk an electrical utility should assume before initiating a PSPS."[19]

[16] *See* WMP Staff Proposal, p. 19.
[17] WMP Staff Proposal, p. 11.
[18] WMP Staff Proposal, p. 20.
[19] SHEUR Proposal, p. 5.

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A. The SHEUR Proposal Should Be Revised to Recognize That the Commission Must Enforce Existing Risk Quantification Requirements.

Contrary to the statements made in the SHEUR proposal, the settlement agreement signed by the utilities and approved by the Commission in D.18-12-014 defines "Risk Event" as "an occurrence or change of a particular set of circumstances that may have potentially adverse consequences and may require action to address…."[20] Pursuant to D.18-12-014, the utilities are required to make the final selection of what to include in their RAMP reports based on "input received from SED, other interested CPUC staff, and interested parties."[21] Despite the varying degrees of deficiencies in their approaches to risk assessment, all of the utilities identify and include wildfire risk in their RAMP reports. D.18-12-014 then imposes explicit requirements that the utilities calculate risk-spend-efficiency (RSE) "by dividing the mitigation risk reduction benefit by the mitigation cost estimate."[22]

Moreover, the Commission has been requiring the utilities to employ a cost-effectiveness analysis to quantify risk reduction long before D.18-12-014. D.16-08-018, the first decision the Commission issued in the first S-MAP proceeding, highlighted the importance of a cost-effectiveness analysis and clarified that calculating risk reduction per dollar "is required by D.14-12-025 and is necessary information for balancing safety with reasonable rates and holding utilities accountable for safety spending," found that "[p]rioritizing based on cost-effectiveness measures is an important improvement to rate cases and an important step to optimizing portfolios," and ordered that RAMP filings "shall explicitly include calculation of risk reduction and a ranking of mitigations based on risk reduction per dollar spent."[23]

D.16-08-018 also concluded that "[p]rioritizing the reduction of safety risks should be geared towards safety risk, and should not include financial interests" and directed the utilities "to remove shareholders' financial interests from consideration in their risk models and decision frameworks used to support case expenditure proposals, especially at the operational level, unless the utility can make a good case for an exception in its" RAMP filing.[24] D.16-08-018 required the utilities to quantify all of its risk reduction activities and provide a "comprehensive view of the utilities potential safety risks and its plans for addressing those risks."[25] The Commission in D.16-08-018 expressly stated: "Without quantifying risk reduction, no meaningful ranking, prioritization or optimization of risk mitigations is possible, and the Commission's goals and processes set forth in D.14-12-025 are compromised."[26]

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[20] D.18-12-014, Attachment A, p. A-3.
[21] D.18-12-014, Attachment A, p. A-10.
[22] D.18-12-014, Attachment A, p. A-13.
[23] D.16-08-018, p. 187 (Finding of Fact 81, 82), p. 192 (Conclusion of Law 30), p. 196 (OP 8).
[24] D.16-08-018, p. 195-196 (OP 7); *see also id.* at 192-193 (Conclusion of Law 36, 37).
[25] D.14-12-025, p. 39-40.
[26] D.16-08-018, p. 182 (Finding of Fact 33).

As described in Section I.A., *supra,* the Commission has now repeatedly determined the utilities have failed to comply with the Commission's risk-related decisions. PCF recommends the SHEUR Proposal be revised to reflect the historical and regulatory reality – and the Commission's existing wildfire and safety requirements that impose mandatory requirements on the utilities since 2014, as detailed above.

B. The SHEUR Proposal Should Be Revised to Encourage the Commission to Enforce Longstanding Public Safety and Last-Resort Requirements for PSPS Events.

Contrary to the statements made in the SHEUR proposal, for more than a decade the Commission has been clear that "SDG&E's statutory obligation to operate its system safety requires SDG&E to shut off its system if doing so is necessary to protect public safety," and has explained that SDG&E has the "authority to shut off power under § 451 and § 399.2 in emergency situations when necessary to protect public safety."[27] The Commission in D.09-09-051 also noted that "there is no dispute that SDG&E may need to shut off power in order to protect public safety if Santa Ana winds exceed the design limits for SDG&E's system and threaten to topple power lines onto tinder dry brush."[28]

Several years later, the Commission confirmed these principles and explained that Sections 451 and 399.2 mean that "SDG&E should shut off power only as a last result, and only when SDG&E is convinced there is a significant risk that strong Santa Ana winds will topple power lines onto flammable vegetation" which the Commission noted "is consistent with SDG&E's Commission-approved tariffs, which acknowledge that SDG&E has an obligation to provide electrical service on a continuous basis."[29]

The Commission was clear "there is a strong presumption that power should remain on for public safety reasons," that "SDG&E should rely on other measures, to the extent available, as an alternative to shutting off power,[30] and that decisions to shut off power are subject to reasonableness reviews by the Commission.[31] Thus, if SDG&E cannot prove that shutting off power was necessary for public safety and utilized as a last resort, it must be held liable for shutting off power.[32] The Commission's rationale in D.09-09-030 and D.12-04-024 applies to all the utilities.[33]

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[27] D.09-09-030, p. 61; D.12-04-024, p. 24-25.
[28] D.09-09-030, p. 61-62.
[29] D.12-04-024, p. 30.
[30] D.12-04-024, p. 30.
[31] D.12-04-024, p. 30.
[32] D.12-04-024, p. 29-32 (describing reasonableness review analysis in detail).
[33] Resolution ESRB-8, *Resolution Extending De-Energization Reasonableness, Notification, Mitigation and Reporting Requirements in Decision 12-04-024 to All Electric Investor Owned Utilities* (July 12, 2018).

The WSAB's erroneous assumption that "no established acceptable level of operational risk an electrical utility should assume before initiating a PSPS" likely results from the utilities' increased use of PSPS events in violation of the longstanding statutory public safety standards and last resort regulatory principles and the Commission's concomitant failure to enforce those standards and principles for more than a decade.

Earlier this year, PCF was part of a broad coalition of parties in R.18-12-005 that filed a joint motion requesting that the Commission conduct the reasonableness reviews the public deserves and is entitled to,[34] but an Administrative Law Judge recently denied the motion "on the basis that the existing CPUC review process at [sic] set forth in D.19-05-042 of reviewing each post-event report, the ongoing PG&E OSC in this docket, the review in the PSPS OII in I.19-11-013, and the review of the wildfire mitigation plans renders the requested relief unnecessary."[35] In essence, the ruling declines, yet again, to enforce the longstanding statutory and regulatory principles which prevent PSPS events except as a last resort. Rather than suggest these longstanding principles do not exist, PCF recommends the WSAB focus on encouraging the utilities to comply with them and the WSD and the Commission to enforce them.

III. THE SAFETY CULTURE PROPOSAL SHOULD BE REVISED TO INCLUDE THE UTILITIES' FAILURES TO COMPLY WITH THE COMMISSION'S WILDFIRE SAFETY RELATED DIRECTIVES.

PCF appreciates that WSD seeks feedback "on the most prudent path forward to leverage the Safety Culture Assessment process to achieve the WSD's mission."[36] Below, PCF provides brief responses to the questions raised in the Safety Culture Proposal, in the order they appear in the document.

What educational experience, skills, training, knowledge, and expertise should a Chief Safety Officer possess to qualify them as been knowledgeable about the diverse elements of a Safety Culture?[37]

PCF submits that in addition to technical competence, a Chief Safety Officer should possess formal training in psychology, so as to best guide the utilities toward the dramatic changes required to achieve compliance with the Commission's directives and to maximize wildfire risk reduction.

[34] R.18-12-005, Joint Motion Requesting Commission Review of PSPS Post-Event Reports (June 15, 2020).
[35] R.18-12-005, Administrative Law Judge's Ruling Responding to Joint Motions (August 24, 2020), p. 8.
[36] Safety Culture Proposal, p. 3.
[37] Safety Culture Proposal, p. 9.

Are these requirements, taken from the Commission's decision approving PG&E's Chapter 11 Bankruptcy Plan and related documents, appropriate for other utilities? If not, why not? Are they adequate to demonstrate a Safety Culture at the top levels of Utility management?[38]

The Safety Culture Proposal suggests that two subdivisions of Section 8389(e) – (e)(3) and (e)(5) relate to safety culture.[39] PCF recommends that the Safety Culture Proposal be modified to reflect that all of the subdivisions of subsection (e) relate to safety culture.[40] The most revealing indicator of safety culture in the context of wildfire safety remains a utilities' compliance or non-compliance with the Commission's wildfire related directives, which is expressly required by Section 8389(e)(1) and (6), and constitutes a prerequisite to any finding of "good standing" as set forth in Section 8389(e)(2).[41]

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[38] Safety Culture Proposal, p. 9.

[39] Safety Culture Proposal, p. 7.

[40] Cal Pub Util. Code § 8389 ("(e) The executive director of the commission shall issue a safety certification to an electrical corporation if the electrical corporation provides documentation of the following: (1) The electrical corporation has an approved wildfire mitigation plan. (2) The electrical corporation is in good standing, which can be satisfied by the electrical corporation having agreed to implement the findings of its most recent safety culture assessment, if applicable. (3) The electrical corporation has established a safety committee of its board of directors composed of members with relevant safety experience. (4) The electrical corporation has established an executive incentive compensation structure approved by the division and structured to promote safety as a priority and to ensure public safety and utility financial stability with performance metrics, including incentive compensation based on meeting performance metrics that are measurable and enforceable, for all executive officers, as defined in Section 451.5. This may include tying 100 percent of incentive compensation to safety performance and denying all incentive compensation in the event the electrical corporation causes a catastrophic wildfire that results in one or more fatalities. (5) The electrical corporation has established board-of-director-level reporting to the commission on safety issues. (6) (A) The electrical corporation has established a compensation structure for any new or amended contracts for executive officers, as defined in Section 451.5, that is based on the following principles: (i) (I) Strict limits on guaranteed cash compensation, with the primary portion of the executive officers' compensation based on achievement of objective performance metrics. (II) No guaranteed monetary incentives in the compensation structure. (ii) It satisfies the compensation principles identified in paragraph (4). (iii) A long-term structure that provides a significant portion of compensation, which may take the form of grants of the electrical corporation's stock, based on the electrical corporation's long-term performance and value. This compensation shall be held or deferred for a period of at least three years. (iv) Minimization or elimination of indirect or ancillary compensation that is not aligned with shareholder and taxpayer interest in the electrical corporation. (B) The division shall approve the compensation structure of an electrical corporation if it determines the structure meets the principles set forth in subparagraph (A) and paragraph (4). (C) It is the intent of the Legislature, in enacting this paragraph and paragraph (4), that any approved bankruptcy reorganization plan of an electrical corporation should, in regards to compensation for executive officers of the electrical corporation, comply with the requirements of those paragraphs. (7) The electrical corporation is implementing its approved wildfire mitigation plan…").

[41] The Protect Our Communities Foundation's Comments on Safety Certification Requests (July 9, 2020).

Which elements of "organizational foundation" are most important for the WSD to measure?[42]

The Safety Culture Proposal recommends utilizing a maturity model approach,[43] thus, PCF refers WSD to its prior comments on the maturity model.[44]

How should the organization demonstrate that it is directing adequate resources and planning appropriately to promote accountability and achieve safety performance?[45]

The utilities must first demonstrate compliance with all existing statutory mandates and the Commission's wildfire-related directives. This should require a utility to demonstrate that it has prepared a RAMP report found to be consistent with the Commission's already-existing risk-based decision-making framework.

What elements of safety culture (both leadership influence and true frontline behavior) are most important to measure as part of this assessment?[46]

PCF recommends that WSD first focus on whether the utilities have complied with the Commission's express wildfire-related directives which to date they have not. After the utilities meet that threshold, each of the questions set forth on page 10 of the Safety Culture Proposal are important elements of safety culture which should all be measured.

How can the WSD most efficiently and effectively collect reliable information about how wildfire mitigation work gets done by employees throughout a utility organization (beyond just a narrative from senior leadership)?[47]

Employees should be invited and encouraged to provide comments anonymously. Doing so would disincentivize unrealistic positive feedback and would also avoid discouraging negative feedback, by eliminating the possibility of rewards or punishment. The utilities should be required to publicize the availability of anonymous reporting by their employees as an important check on the proven pressures within the utilities' corporate culture to cut corners.

[42] Safety Culture Proposal, p. 9.
[43] Safety Culture Proposal, p. 9.
[44] R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 9-11.
[45] Safety Culture Proposal, p. 9.
[46] Safety Culture Proposal, p. 10.
[47] Safety Culture Proposal, p. 10.

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Aside from these metrics, what other metrics would be useful and appropriate to assess utility wildfire safety outcomes which are influenced by Safety Culture?[48]

The Safety Culture Proposal takes as a given that the "Commission's evaluation of safety-related performance metrics is an ongoing process in several proceedings, including Risk Assessment and Mitigation Phase (RAMP) and Safety Model Assessment Proceeding (S-MAP) portions of utility General Rate Cases."[49] While this should be true, in SDG&E's case the Commission has not yet assessed a RAMP report by SDG&E in a manner consistent with the applicable rate-based decision-making framework, nor has the Commission been able to evaluate SDG&E's risk-related requests on their own merits in any GRC. Accordingly, WSD's attention to the RAMP and S-MAP requirements becomes particularly critical in the case of SDG&E.

Which specific culture measures or metrics are most tightly linked to wildfire safety outcomes? How should the WSD approach assessing these in a uniform way across utilities through the submissions described?[50]

PCF reiterates that the most revealing indicator of safety culture in the context of wildfire safety remains a utility's compliance or non-compliance with the Commission's wildfire-related directives.

Sincerely,

/s/ Malinda Dickenson
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cc. Service List for R.18-10-007

[48] Safety Culture Proposal, p. 11 (listing "• Ignitions and Trends of Ignition Drivers • Wires Down incidents • Faults • Near Misses • Inspection Findings • Customer Outages from Public Safety Power Shutoff events (duration and extent) • Injuries/fatalities related to wildfires, wildfire mitigation initiatives and PSPS • Acres burned by utility involved wildfires").
[49] Safety Culture Proposal, p. 11.
[50] Safety Culture Proposal, p. 11.

Attachment 6:

September 18, 2020 WSD Draft WMP Compliance Process

California Public Utilities Commission

Wildfire Safety Division
Draft Wildfire Mitigation Plan Compliance Process

September 18, 2020

STAFF PROPOSAL FOR WORKSHOP AND PUBLIC COMMENT

DISCLAIMER

This proposal was prepared by California Public Utilities Commission (CPUC) staff. It does not necessarily represent the views of the CPUC, its Commissioners, or the State of California. The CPUC, the State of California, its employees, contractors, and subcontractors make no warrant, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the uses of this information will not infringe upon privately owned rights. This report has not been approved or disapproved by the CPUC, nor has the CPUC passed upon the accuracy or adequacy of the information in this report.

DRAFT

This document is for the purposes of the WSD's September 29, 2020 Compliance workshop and subsequent public comment.

1. BACKGROUND

Assembly Bill 1054 (Holden, Chapter 79, Statutes of 2019) establishes a set of requirements for the Wildfire Safety Division (WSD) to oversee compliance with utility Wildfire Mitigation Plans (WMPs) after they are approved. Further, AB 1054 requires the WSD to develop, and the California Public Utilities Commission (Commission) to adopt and approve a "wildfire mitigation plan compliance process" which includes "appropriate performance metrics and processes for determining an electrical corporation's compliance with its approved wildfire mitigation plan."

2. SUMMARY

Public Utilities Code § 8389 (d)(3) directs the Commission, after consultation with the WSD, by December 1, 2020, to "adopt and approve a wildfire mitigation plan compliance process". This document presents the WSD's proposal for a compliance process which consists of two components:

1. An annual assessment of each electrical corporation's compliance with an approved WMP during the prior compliance period
2. Ongoing assessments to determine compliance throughout the compliance period based on WSD's field inspections, paper audits, Independent Evaluator reports, and other regular reporting submissions as requested by the WSD

The proposed process will include ongoing compliance monitoring throughout the electrical corporation's WMP compliance period, as well as an ex-post review of each electrical corporation's most recently concluded compliance period, on a schedule to be determined by the WSD.

The WSD's assessments of whether each electrical corporation is satisfactorily implementing its WMP will inform WSD determinations that may include recommending that the Commission pursue an enforcement action against the electrical corporation for noncompliance with its approved plan, pursuant to Public Utilities Code § 8389(g).

The proposed compliance process, as detailed in this document, will enable the WSD to fulfill its statutory obligation to oversee compliance with each electrical corporation's plan.

DRAFT

This document is for the purposes of the WSD's September 29, 2020 Compliance workshop and subsequent public comment.

3. PROPOSED COMPLIANCE PROCESS

Compliance Assessments

Under the proposed compliance process the WSD will undertake the following assessments[1]:

1. **Ongoing Compliance Assessment:**

   The WSD will evaluate electrical corporations' implementation of WMPs through field inspections, audits, Independent Evaluator reports, customer complaints and other regular reporting submissions as requested by the WSD. The WSD will verify actions committed to by electrical corporations in their currently approved plans.

   The WSD will define defects that it will utilize to identify instances of noncompliance. The WSD's ongoing compliance assessment process will include building procedures to inspect WMP activities, identify defects, characterize severity of defects, track corrective actions and compile data submitted by electrical corporations. The WSD will submit reports to electrical corporations with its findings and will establish timelines for corrective action as listed below. The WSD is in the process of developing and assigning "defect codes" for multiple noncompliance situations of each WMP initiative and established metrics to track the defects.

   Furthermore, electrical corporations are legislatively tasked with notifying the WSD when they have completed a substantial portion of vegetation management requirements in their approved WMPs, for WSD's audit and inspection. Electrical corporations shall timely correct defects of vegetation management identified by WSD staff during inspections, in accordance with the timelines listed in the Consequences of Compliance Assessments section of this document.

2. **Annual Compliance Assessment:**

   The WSD will conduct an annual assessment of each electrical corporation's compliance with its WMP through the following process:

   - The WSD will establish compliance periods and deliverables to determine the electrical corporations' compliance with WMPs. Pursuant to Public Utilities Code § 8385(a)(1), a "compliance period" means a period of approximately one year and the WSD may establish staggered compliance periods for each electrical corporation. This document proposes that a compliance period begins at WMP approval date and concludes when the next plan or update is approved.
   - Based on these compliance periods, each electrical corporation shall annually file a report addressing its compliance with WMPs over the prior compliance period within 90 days after the end of a compliance period.
   - Independent evaluators shall submit reports on WMP compliance findings by July 1st of each year.
   - The WSD will review these submissions in order to make a recommendation of whether each electrical corporation substantially complied with its WMP during the prior compliance period.

[1] Following the transfer of WSD to the Office of Electrical infrastructure Safety (OEIS), OEIS and the Commission may memorialize OEIS's commitment to undertake these assessments in a Memorandum of Understanding.

This document is for the purposes of the WSD's September 29, 2020 Compliance workshop and subsequent public comment.

Consequences of Compliance Assessments:

Based on the WSD's ongoing or annual compliance assessments, the WSD may determine that an electrical corporation is not in substantial compliance with its WMP and may recommend that the Commission pursue an enforcement action against the electrical corporation for noncompliance with its approved plan, pursuant to Public Utilities Code § 8389(g). Through internal agreements and a division of responsibilities between the WSD and the Commission's Safety and Enforcement Division (SED), a process has been outlined to determine consequences. Several factors are assessed to determine whether the WSD should directly issue a Notice of Defect to an electrical corporation, or if SED enforcement action is needed. The WSD's ultimate outcome is to ensure that utilities are reducing wildfire risk through correction of defects.

1. Non-Compliance Resulting From Failure to Timely Correct Defects

The WSD proposes to coordinate its efforts with the SED to achieve timely correction of defects identified in Notices of Defects during the WSD's compliance assessments.[2] The WSD may also escalate the defect to a Notice of Noncompliance to order correction from the utility. Upon an electrical corporation's failure to timely correct an alleged defect, the WSD may inform SED of noncompliance instance and SED may investigate the noncompliance.

Following the WSD's recommendation to the Commission, and pursuant to the Commission's enforcement authority, the Commission via SED may issue a citation or other enforcement action if an electrical corporation does not correct the identified defects on the prescribed timelines shown below.

Depending on the level of defect severity, the WSD proposes to require electrical corporations to correct defects within a prescribed deadline. The WSD has prioritized defect codes and proposes the following timelines will be required for correction of defects:

Category	**Correction**
Category 1 - Severe	Immediate resolution
Category 2 - Moderate	1-2 months (in HFTD Tier 3) 3-6 months (in HFTD Tier 2) 6 months (if relevant to worker safety) 12 months or scheduled in WMP update (other)
Category 3 - Minor	12 months or resolution schedule included in WMP update

[2] WSD, after consultation with SED, may recommend amendments to the Commission's adopted WMP compliance process.

This document is for the purposes of the WSD's September 29, 2020 Compliance workshop and subsequent public comment.

2. Failure to Substantially Comply with WMP

If the WSD determines that an electrical corporation fails to substantially comply with an approved WMP, the WSD may recommend to the Commission an enforcement action against an electrical corporation consistent with Public Utilities Code § 8389(g). The Commission may then assess penalties, including fines or equitable remedies, if it finds that an electrical corporation has failed to comply with its WMP, consistent with Public Utilities Code § 8386.1.

Ongoing use of Compliance Assessments to Inform WMPs:

The WSD will utilize its assessments and seek to identify a dynamic approach to strategize the implementation of WMPs by incorporating risks and data collected in outcomes metrics. Such an approach will advise the WSD's future evaluations and therefore ensure electrical corporations' future WMPs prioritize efforts in ways that most effectively mitigate wildfire risk and will also allow the WSD to keep the public informed of the progress of WMP implementation.

Accordingly, this is a goal-oriented framework that will help the WSD ensure that the risk of wildfire is properly mitigated and reduced in accordance with Public Utilities Code §§8386 – 8389.

Two goals for the WSD include:

- The WSD will assess electrical corporations' implementation of the initiatives identified in the approved WMPs.
- The WSD will track outcomes of the reduction of wildfire risks and Public Safety Power Shutoffs (PSPS) events in order to determine the most effective strategy to mitigate areas with the highest-risk, and investigate areas not included in WMPs.

DRAFT

4. CONCLUSION

The WSD has developed a strategy and processes to perform its responsibilities. This document outlines the WSD's adaptive approach to identify most effective WMP initiatives for electrical corporations' timely implementation, and procedures to determine electrical corporations' compliance based on the implementation of the approved WMPs.

The WSD's proposal for a compliance process is still in progress and may be modified in response to comments. It may also be modified over time, as lessons are learned in the field and circumstances evolve. The goal of the WSD is to reduce wildfire risk and further minimize PSPS events by using available information such as weather data and past utility fire sites, and data collected during inspections to identify the most effective WMP initiatives, the locations and schedule for timely implementation. The WSD's proposed compliance process will do much to inform such forward-looking efforts.

By monitoring compliance with critical wildfire safety activities and measuring the reduction of wildfire risk, the WSD strives to implement its vision for a sustainable California, with no catastrophic utility-related wildfires, and access to safe, affordable and reliable electricity. By determining compliance based on the occurrence of clearly identified defects and an annual review process of overall compliance viewed in retrospect, the WSD aims to improve the safety of communities across California.

DRAFT

This document is for the purposes of the WSD's September 29, 2020 Compliance workshop and subsequent public comment.

Attachment 7:

October 2, 2020 PCF Comments on the WSD Draft

WMP Compliance Process

The Protect Our Communities Foundation
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October 2, 2020

California Public Utilities Commission
Attn: Caroline Thomas Jacobs, Director
Wildfire Safety Division
505 Van Ness Ave., 4th Floor
San Francisco, CA 94102

Sent Via Email (wildfiresafetydivision@cpuc.ca.gov)

Re: The Protect Our Communities Foundation's Comments on the Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process

To Whom It May Concern:

The Protect Our Communities Foundation (PCF) provides these comments on the Wildfire Safety Division (WSD) Draft Wildfire Mitigation Plan Compliance Process (draft proposal). PCF generally supports the draft proposal, but submits that the draft proposal takes an overly limited view of WSD's statutory role and the Commission's enforcement capabilities, and that more realistic and comprehensive goals are needed.

I. THE STATUTES REQUIRE WSD TO OVERSEE COMPLIANCE WITH WILDFIRE SAFETY – NOT MERELY WITH RESPECT TO THE UTILITIES' WILDFIRE MITIGATION PLANS.

The draft proposal states that the proposal "will enable the WSD to fulfill its statutory obligation to oversee **compliance with each electrical corporation's plan**."[1] Section 326(a)(1), however, requires WSD first to "Oversee and enforce electrical corporations' **compliance with wildfire safety** pursuant to Chapter 6 (commencing with Section 8385) of Division 4.1."[2]

PCF submits that WSD's duties under Section 8386(d) – the duty to "verify that the plan complies with all applicable rules, regulations, and standards, as appropriate"[3] - constitutes a continuing duty which requires that WSD do more than ensure compliance with deficient WMPs. The WSD must do more than ensure compliance with deficient WMPs becomes particularly important where, as here, the Commission both "approved" WMPs and concluded those same WMPs are deficient in myriad ways.

[1] Draft Proposal, p. 3 (emphasis added).
[2] Pub. Util. Code, § 326, subd. (a)(1) (emphasis added).
[3] Pub. Util. Code, § 8386, subd. (d).

A large delta exists between requiring compliance with the utilities' 2020 WMPs which the Commission determined were deficient, and requiring compliance with wildfire safety. Section 326 refers to WSD's compliance with wildfire safety as a whole – the statute is not limited to compliance with the utilities' defective 2020 WMPs.

Wildfire safety, for example, includes Section 8386(a)'s requirement that "Each electrical corporation shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment."[4]

Moreover, under Section 8386.1, enforcement actions are not limited by the Commission's interpretation of "approval."[5] PCF urges WSD to focus on ensuring compliance with minimizing the risk of wildfire rather than limiting itself to ensuring compliance with the utilities' deficient 2020 WMPs.

II. THE COMMISSION'S ENFORCEMENT CAPABILITIES ARE MORE COMPREHENSIVE THAN THE DRAFT PROPOSAL SUGGESTS.

The draft proposal states that "If the WSD determines that an electrical corporation fails to substantially comply with an approved WMP, the WSD may recommend to the Commission an enforcement action against an electrical corporation consistent with Public Utilities Code § 8389(g). The Commission may then assess penalties, including fines or equitable remedies, if it finds that an electrical corporation has failed to comply with its WMP, consistent with Public Utilities Code § 8386.1."[6] Although the first sentence tracks Section 8389(g), the second sentence is overly limited as discussed below.

A. The Commission <u>Must</u> Assess Penalties for Noncompliance With WMPs.

The above-quoted wording of the draft proposal suggests that the imposition of penalties by the Commission for a utilities' failure to comply with its WMP could be considered permissive, but Section 8386.1 in fact mandates that the Commission assess penalties on utilities failing to substantially comply with their respective plans: "The commission **shall** assess penalties on an electrical corporation that fails to substantially comply with its plan."[7] Section 8386.1's mandate comports with Section 2101's mandate that: "The Commission **shall** see that the provisions of the Constitution and statutes of this State affecting public utilities…are enforced and obeyed and that violations are promptly prosecuted…"[8]

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[4] Pub. Util. Code, § 8386, subd. (a).
[5] Pub. Util. Code, § 8386.1 ("The Wildfire Safety Division's approval of a plan does not establish a defense to any enforcement action for a violation of a commission decision, order, or rule.").
[6] Draft Proposal, p. 6.
[7] Pub. Util. Code, § 8386.1 (emphasis added).
[8] Pub. Util. Code, § 2101 (emphasis added).

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B. The Commission's Enforcement Capabilities Are Not Limited to Section 8386.1 Penalties.

The Commission's obligation to impose penalties for substantial noncompliance with WMPs constitutes merely one of many enforcement mechanisms available to the Commission. For example, Section 2101 is not limited to ensuring compliance with WMPs, but requires the Commission to enforce the Constitution and all applicable statutes.[9] Additionally, the Commission can and should bring suit to prevent violations of its rulings via mandamus or injunction.[10] The Commission also has additional powers, such as the power to hold the utilities in contempt.[11]

The Commission's cost-recovery evaluation comprises another mechanism likely to promote compliance if performed properly. The Commission can and should find that the costs of implementing wildfire mitigation plans that fail to comply with Commission directives are unjust and unreasonable.[12]

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[9] Pub. Util. Code, § 2101 ("The commission shall see that the provisions of the Constitution and statutes of this State affecting public utilities, the enforcement of which is not specifically vested in some other officer or tribunal, are enforced and obeyed, and that violations thereof are promptly prosecuted and penalties due the State therefor recovered and collected, and to this end it may sue in the name of the people of the State of California. Upon the request of the commission, the Attorney General or the district attorney of the proper county or city and county shall aid in any investigation, hearing, or trial had under the provisions of this part, and shall institute and prosecute actions or proceedings for the enforcement of the provisions of the Constitution and statutes of this State affecting public utilities and for the punishment of all violations thereof.").

[10] Pub. Util. Code, § 2102 ("Whenever the commission is of the opinion that any public utility is failing or omitting or about to fail or omit, to do anything required of it by law, or by any order, decision, rule, direction, or requirement of the commission, or is doing anything or about to do anything, or permitting anything or about to permit anything to be done, in violation of law or of any order, decision, rule, direction, or requirement of the commission, it shall direct the attorney of the commission to commence an action or proceeding in the superior court in and for the county, or city and county, in which the cause or some part thereof arose, or in which the corporation complained of has its principal place of business, or in which the person complained of resides, for the purpose of having such violations or threatened violations stopped and prevented, either by mandamus or injunction. The attorney of the commission shall thereupon begin such action or proceeding in the name of the people of the State of California, by petition to such superior court, alleging the violation or threatened violation complained of, and praying for appropriate relief by way of mandamus or injunction.").

[11] Pub. Util. Code, § 2113 ("Every public utility, corporation, or person which fails to comply with any part of any order, decision, rule, regulation, direction, demand, or requirement of the commission or any commissioner is in contempt of the commission, and is punishable by the commission for contempt in the same manner and to the same extent as contempt is punished by courts of record. The remedy prescribed in this section does not bar or affect any other remedy prescribed in this part, but is cumulative and in addition thereto.").

[12] *See e.g.* Pub. Util. Code, § 8386.4, subd. (b) (requiring the Commission to consider the costs of WMPs in a utility's GRC or in a comprehensive separate application).

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www.protectourcommunities.org

One of the most impactful things the Commission could do to ensure compliance is to cease preventing the utilities from experiencing the consequences of their noncompliance. The Commission can allow the utilities to be held liable to injured persons under Section 2106 simply by declining to issue future safety certificates to noncompliant utilities. If the utilities knew they would not enjoy the safe harbor provisions of Section 451.1(c)[13] and access to the wildfire safety fund,[14] they would likely comply with the Commission's directives and legislative mandates.

C. Making Public Enforcement Mechanisms and Internal Agreements Would Enable Better Compliance with the Commission's Statutory Mandates.

PCF requests more information and reserves comment on the internal agreements between WSD and SED referred to in the draft proposal.[15] PCF seeks the details of the arrangement to ascertain whether internal agreements further the Commission's broad statutory enforcement authority. PCF also requests that the Commission identify who will be enforcing CEQA with respect to the non-exempt activities the utilities propose in their WMPs.

D. The Draft Proposal Should be Revised to Account for Enforcement of the Utilities' Present-Day Violations.

The utilities' existing violations of past Commission decisions have been well documented and are not repeated here.[16] For purposes of these comments, PCF recommends that the draft proposal be revised to include a compliance schedule for the utilities' existing violations.

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[13] Pub. Util. Code, § 451.1, subd. (c) (uniquely requiring other parties to "create[] serious doubt as to the reasonableness" of the utilities' conduct in a lawsuit).

[14] Pub. Util. Code, § 3292, subd. (h)(3)(B).

[15] Proposal, p. 5 ("Through internal agreements and a division of responsibilities between the WSD and the Commission's Safety and Enforcement Division (SED), a process has been outlined to determine consequences. Several factors are assessed to determine whether the WSD should directly issue a Notice of Defect to an electrical corporation, or if SED enforcement action is needed…The WSD proposes to coordinate its efforts with the SED to achieve timely correction of defects identified in Notices of Defects during the WSD's compliance assessments.[] The WSD may also escalate the defect to a Notice of Noncompliance to order correction from the utility. Upon an electrical corporation's failure to timely correct an alleged defect, the WSD may inform SED of noncompliance instance and SED may investigate the noncompliance. Following the WSD's recommendation to the Commission, and pursuant to the Commission's enforcement authority, the Commission via SED may issue a citation or other enforcement action if an electrical corporation does not correct the identified defects on the prescribed timelines…").

[16] *See e.g.* WSD-002; WSD-005; The Protect Our Communities Foundation's Comments on San Diego Gas & Electric Company's Remedial Compliance Plan (August 10, 2020); The Protect Our Communities Foundation's Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing the SHEUR Threshold (August 26, 2020).

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III. MORE REALISTIC AND COMPREHENSIVE GOALS ARE NEEDED TO AVOID ARTIFICIALLY LIMITING WILDFIRE MITIGATION ACTIVITIES TO THE UTILITIES' PREFERRED ACTIVITIES.

Under the heading "Ongoing Use of Compliance Assessments to Inform WMPs," the Draft Proposal suggests that use of outcome metrics will "ensure electrical corporations' future WMPs prioritize efforts in ways that most effectively mitigate wildfire risk and will also allow the WSD to keep the public informed of the progress of WMP implementation," and then sets forth two goals: first, that "The WSD will assess electrical corporations' implementation of the initiatives identified in the approved WMPs," and second, that "The WSD will track outcomes of the reduction of wildfire risks and Public Safety Power Shutoffs (PSPS) events in order to determine the most effective strategy to mitigate areas with the highest risk, and investigate areas not included in WMPs."[17]

A. WSD Should Revise the Statement in the Draft Proposal Suggesting that Use of Outcome Metrics Will Ensure "future WMPs prioritize efforts in ways that most effectively mitigate wildfire risk."

PCF continues to object to the Commission's interpretation of the wildfire mitigation statutes as allowing for approval of wildfire mitigation plans that have not undergone an effectiveness analysis. PCF does not reargue the issue here, but notes that when WSD functions are transferred to the Natural Resources Agency, only "lawful rules and regulations" established under the wildfire mitigation statutes "expressly continue in force."[18]

Under any interpretation of the effectiveness analysis required by the wildfire mitigation statutes, however, the use of outcome metrics to prioritize activities necessarily artificially limits the universe of risk reduction activities. The utilities' WMPs include only the activities that the utilities propose. The outcomes of alternatives to the utilities' proposals will not be measured by assessing the outcomes of the utilities' WMPs because the alternatives are not contained within the WMPs.

Relatedly, the draft proposal states as a goal that "The WSD will track outcomes of the reduction of wildfire risks and Public Safety Power Shutoffs (PSPS) events in order to determine the most effective strategy to mitigate areas with the highest risk..."[19] Tracking PSPS outcomes – like tracking outcomes of the utilities' other proposed activities – fails to best determine effective strategies to mitigate or avoid PSPS events entirely. Alternatives to the utilities' proposed activities exist which are more effective at mitigating PSPS events, but those alternatives are not contained within the WMPs. Therefore, the outcomes of alternatives will not be tracked by tracking the outcomes of WMPs.

[17] Draft Proposal, p. 6.
[18] Gov. Code, § 15475.
[19] Draft Proposal, p. 6.

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At the very least, statements in the draft proposal regarding the benefits of tracking outcomes should be toned down because only the utilities' proposed activities will be considered by tracking outcome metrics.

B. The Draft Proposal Should Be Revised to Incorporate a Two-Way Conversation Between WSD and the Public.

PCF appreciates that WSD intends to keep the public informed.[20] PCF recommends that the draft proposal be revised to recognize that the public should have a voice with respect to what activities are incorporated into WMPs in the first place. Keeping the public informed of progress constitutes a one-directional conversation; but the obligation to consider alternatives to the utilities' preferred activities necessarily requires a multi-directional conversation.[21] In short, ideas other than those generated by the utilities, including from persons and groups that are not financially interested, should be considered and ultimately implemented.

C. The Draft Proposal Should Be Revised to Acknowledge that Some of the Initiatives in the Utilities' "Approved" 2020 WMPs Remain Prohibited.

The first goal set forth in the draft proposal states that "The WSD will assess electrical corporations' implementation of the initiatives identified in the approved WMPs."[22] While PCF's position continues to be that a conditional approval does not comprise the approval contemplated by the wildfire mitigation statutes,[23] the Commission's recent issuance of safety certificates *despite* the defects the Commission determined are contained within the 2020 WMPs requires that WSD adjust its view of what it means to "comply" with a 2020 WMP. By allowing for "approval" of deficient WMPs, the Commission's interpretation of the statutes means that the WSD cannot simply assume that all initiatives should be implemented. Some initiatives identified in the approved WMPs remain prohibited and thus cannot be implemented.[24]

Sincerely,
/s/ Malinda Dickenson
Malinda Dickenson, General Counsel
The Protect Our Communities Foundation
4452 Park Blvd. #309 San Diego, CA 92116
Tel: (858) 521-8492
Email: malinda@protectourcommunities.org

cc. Service List for R.18-10-007

[20] Draft Proposal, p. 6.
[21] The Protect Our Communities Foundation's Comments on Proposed Roadmap (June 30, 2020), p. 11.
[22] Draft Proposal, p. 6.
[23] The Protect Our Communities Foundation's Comments on Safety Certification Requests (July 9, 2020).
[24] Examples include SDG&E's enhanced vegetation practices and SDG&E's fossil-fueled whole-house backup generation, because SDG&E has failed to make the showings required by D.19-05-039.

Attachment 8:

Draft Resolution WSD-011

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

October 12, 2020 **Agenda ID#18852**

TO: STAKEHOLDERS TO 2021 WILDFIRE MITIGATION PLANS AND SAFETY CULTURE ASSESSMENTS
Service List(s): R.18-10-007

Enclosed is Draft Resolution WSD-011 and associated appendices. Draft Resolution WSD-011 presents the Wildfire Safety Division's (WSD) implementation of Public Utilities Code Sections 8389(d)(1)(2) and (4). To implement Sections (d)(1) and (2), Draft Resolution WSD-011 provides updates to electrical corporations' 2021 Wildfire Mitigation Plan (WMP) requirements, including updates to the performance metrics, templates, reports and maturity model required of electrical corporations for 2020 WMPs. To implement Section (d)(4), Draft Resolution WSD-011 provides a recommended process for annual safety culture assessments for each electrical corporation.

In making its recommendations, the WSD reviewed input from the public and the Wildfire Safety Advisory Board as well as learnings from its own experience during the 2020 Wildfire Mitigation Plan Process. Draft Resolution WSD-011 is presented to the Commission for its approval prior to the December 1, 2020 statutory deadline.

Pursuant to Rule 14.5 of the Commission's Rules of Practice and Procedure, stakeholders may submit comments on Draft Resolution WSD-011. Comments shall be limited to twenty (20) pages in length and should list the recommended changes to the Draft Resolution. Comments shall focus on factual, legal or technical errors in the proposed Draft Resolutions.

Comments must be received by the Wildfire Safety Division no later than 20 days from issuance of the Draft Resolution. Comments should be submitted to the following email address: wildfiresafetydivision@cpuc.ca.gov.

Stakeholders submitting comments on the Draft Resolution must also serve their comments on the service list of R.18-10-007. Comments that are not served on

the service list of R.18-10-007 may not be considered. The WSD will post all comments received on the following website: www.cpuc.ca.gov/wildfiremitigationplans.

Replies to comments will not be accepted nor considered if submitted.

Draft Resolution WSD-011 will appear on the agenda at the next Commission meeting, which is at least 30 days after the date of this letter. The Commission may vote to ratify WSD's Draft Resolution at that time or it may postpone a vote until a later meeting.

Sincerely,

Caroline Thomas Jacobs
Director, Wildfire Safety Division
California Public Utilities Commission

CTJ:gp2

Attachment

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Wildfire Safety Division
Resolution WSD-011
[Date]

R E S O L U T I O N

Resolution WSD-011. Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.

SUMMARY:

This Resolution implements the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.[1] The statute requires the following:

> (d) By December 1, 2020, and annually thereafter, the [C]ommission, after consultation with the [Wildfire Safety [D]ivision], shall adopt and approve all of the following:
>
> (1) Performance metrics for electrical corporations.
>
> (2) Additional requirements for wildfire mitigation plans.
>
> (4) A process for the division to conduct annual safety culture assessments for each electrical corporation.

To implement Sections (d)(1) and (2), this Resolution provides updates to electrical corporations' 2021 Wildfire Mitigation Plan (WMP) requirements, including updates to the metrics, templates, reports and maturity model required of electrical corporations for 2020 WMPs. To implement Section (d)(4), this

[1] All statutory reference are to the Public Utilities Code. Subsection (d)(3) relates to compliance and is addressed in a separate Resolution.

Resolution provides a recommended process for annual safety culture assessments for each electrical corporation.

Assembly Bill (AB) 1054 (2019) authorizes the Wildfire Safety Division (WSD) to approve or deny electrical corporations' proposed WMPs and the Commission to ratify the WSD's determinations as appropriate. For 2020 the WSD evaluated WMPs based on guidance issued on December 16, 2019, in the WMP Rulemaking (R.) 18-10-007. This Resolution refines the guidance based on stakeholder comments about the 2020 guidance, the California Wildfire Safety Advisory Board's (WSAB) June 24, 2020, input,[2] and the WSD's experience with the 2020 WMP review process.

The elements of the revised WMP guidance and annual safety culture assessment process are included as attachments to this Resolution. The Attachments are as follows:

- **Attachment 1: Incorporation of WSAB Recommendations**
  This document contains the WSD's analysis of the WSAB recommendations.
- **Attachment 2.1: Changes to WMP Guidelines**
  The WMP requirements are fundamentally the same as in 2020 but are restructured to streamline reporting and evaluation. This document summarizes the major changes to WMP sections and tables.
- **Attachment 2.2: 2021 WMP Guidelines Template**
  Definitions of metrics have been clarified, and tables have been altered to improve reporting.
- **Attachment 2.3: 2021 Performance Metrics Data Template**
  Provides an Excel spreadsheet for completing quarterly non-spatial data reports.

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[2] Recommendations on the 2021 Wildfire Mitigation Plan Guidelines, Performance Metrics, and Safety Culture, June 24, 2020.
https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/WSD/WSAB%20Recommendations%20on%202021%20WMP%20Guidelines%20APPROVED%20CONCURRENCES%206.24.2020.pdf

- **Attachment 2.4: 2021 Maturity Model**
  The Utility Wildfire Mitigation Maturity Model is a method to assess utility wildfire risk reduction capabilities and examine the relative maturity of the wildfire mitigation programs. In the 2021 WMP review, the WSD will assess progress on maturity by comparing the utility's progress from the utility's 2020 maturity survey, WMP and other data sources, subject to audit and verification.
- **Attachment 3: Changes to WMP Process**
  This document recommends an improved 2021 WMP evaluation schedule, timeline and process.
- **Attachment 4: Annual Safety Culture Assessment Process**
  The WSD's recommendation for annual safety culture assessments pursuant to Public Utilities Code § 8389(d)(4).

PROPOSED OUTCOME:

- Provides revised guidance for utilities to complete their 2021 WMP updates.
- Provides for a phased consideration of WMPs, with Small and Multijurisdictional Utilities' (SMJUs) and Independent Transmission Owners' (ITOs) WMPs due one month after those of the large Investor Owned Utilities (IOUs).
- Considers and incorporates the majority of the WSAB's proposed performance metrics and other recommendations.
- Refines the process for the Commission to evaluate and approve/disapprove 2021 WMP updates.
- Proposes a process for annual safety culture assessments for each electrical corporation.

SAFETY CONSIDERATIONS:

- Mitigation of catastrophic wildfires in California is among the most important safety challenges the Commission-regulated electrical corporations face. WMPs list an electrical corporation's proposed actions to help prevent

catastrophic wildfire, so comprehensive WMPs are essential to safety.

- By implementing measures such as vegetation management, system hardening (such as insulating overhead lines and removing or upgrading equipment most likely to cause fire ignition), improved inspection and maintenance, situational awareness (cameras, weather stations, and use of data to predict areas of highest fire threat), improved community engagement and awareness, and other measures, utility-caused catastrophic wildfire risk should be reduced over time.
- The WMP changes for 2021 should enhance California's ability to review and monitor the electrical corporations' actions in mitigating catastrophic wildfire.
- The process for conducting annual safety culture assessments should help ensure electrical corporations improve their focus on and culture of safety at all levels of their businesses.

ESTIMATED COST:

- This Resolution does not address or approve costs, but instead focuses on WMP requirements and a process for evaluating electrical corporation safety culture.
- WMP costs are to be addressed in electrical corporation General Rate Cases or other applications, not in WMPs or safety culture assessments.

I. BACKGROUND

The Commission opened Rulemaking (R.) 18-10-007 in 2018 to review the 2019 WMPs and approved those WMPs in Commission decisions pursuant to Senate Bill (SB) 901. AB 1054 moved the review of WMPs to the WSD. The legislation also added new provisions in § 8389(d) for the Commission to annually adopt and approve performance metrics for electrical corporations; requirements for wildfire mitigation plans; and a process for the WSD to conduct annual safety culture assessments for each electrical corporation.

The Commission adopted Resolution WSD-001 setting forth the process for review of the 2020 WMPs in light of AB 1054's transfer of responsibility for review of WMPs to WSD. In June 2020, the Commission ratified the WSD's approval of all electrical corporations' WMPs in Resolutions WSD-002 – 009, except Bear Valley Electric Service (BVES).

The 2020 process revealed a need for several refinements for 2021. Utilities were inconsistent in their reporting of projected expenditures associated with their wildfire mitigation efforts. In some cases, few cost estimates were given; in others, there was overlap and duplication across categories. The revised WMP Guidelines (Attachment 2.2) therefore require additional details, cost summaries and estimates of ratepayer impacts. Other changes for 2021 WMPs relate to definitions and units of measurement used in reporting and elimination of duplicate tables or line items in tables that are not necessary for 2021 WMPs.

The revised WMP Guidance includes a "completeness checklist" detailing the 22 statutory requirements of AB 1054 and amended by AB 111. It also includes tables for summarizing the projected costs of mitigations proposed in the WMP, with a column for actual 2020 expenditures, and a table for estimates of the ratepayer impacts of proposed mitigation expenditures.

To consolidate data and analysis related to Public Safety Power Shutoffs (PSPS), the revised WMP Guidance includes a PSPS Section requiring utilities to describe their efforts to minimize, if not eliminate, the use of PSPS as a preferred mitigation option.

II. STAFF PROPOSALS, WORKSHOP AND COMMENTS

On August 6, 2020, the WSD circulated a "Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables." The WSD conducted remote workshops on August 12 and 13, 2020, (due to the COVID-19 pandemic) to present to stakeholders and the public proposed revisions to the guidance for 2021 WMPs. The workshops also introduced WSD's approach to collection and naming of data relevant to wildfire mitigation, and the WSAB presented its proposed "System Hardening and Electric Utility Resilience" standard contained in its June 24, 2020 Final Report.

Finally, the workshops reviewed and gave parties the opportunity to comment on "Draft Recommendations for Developing a Safety Culture Assessment Process," which the WSD also circulated on August 6, 2020.

On August 26, 2020, thirteen utilities, stakeholder groups and individuals submitted comments on the staff proposals and workshop.[3] Based on the comments, this Resolution adopts the following refinements to the staff proposals:

- The use of "near miss" events in metrics reporting is revised to "risk events." Risk events are intended to encompass the suite of all event types that may be informative of utility ignition risk. These are defined as an event with significant probability of ignition, including wires down, contacts with objects, line slap, events with evidence of significant heat generation, and other events that cause sparking or have the potential to cause ignition.
- Aspects of the proposed annual safety culture assessment process are revised with respect to safety governance and proposed tools for assessment.

[3] The following stakeholders submitted comments: William Abrams, California Public Advocates Office, California Small & Multi-jurisdictional Utilities, CTIA, Coalition of Utility Employees, Green Power Institute, Mussey Grade Road Alliance, Protect Our Communities Foundation, Pacific Gas & Electric, Rural County Representatives of California, San Diego Gas & Electric, Southern California Edison, and The Utility Rate Network (TURN).

Among comments and suggestions that were incorporated into the final proposals, the following are reflected in the Attachments to this Resolution:

- The IOUs and Mussey Grade Road Alliance questioned the value of near miss reporting as defined. This Resolution uses the term "risk events" to ensure consistency with data currently collected, as noted above.
- The IOUs and TURN raised concerns about the proposed schedule for WMP filing and evaluation. This Resolution adopts a "phased" approach to afford the WSD and parties additional time to review WMPs.
- The IOUs and TURN questioned the use of outcome metrics to measure safety culture. While outcome metrics will continue to be used, the assessment process will also identify "indicators of culture."
- TURN warned against the potential for utility manipulation of the information provided in self-assessments of safety culture. These concerns will be balanced by use of a WSD wildfire workforce survey and in-person interviews with targeted utility staff.

III. DISCUSSION

1. Attachment 1: Incorporation of WSAB Recommendations

Section 8389(b) directs the WSAB to make recommendations to the WSD by June 30, 2020 and annually thereafter on:

- Appropriate performance metrics and processes for determining each electrical corporation's compliance with its approved WMP;
- Appropriate requirements in addition to the requirements set forth in § 8386 for the WMP;
- The appropriate scope and process for assessing the safety culture of an electrical corporation.

The WSAB approved its recommendations on the 2021 WMP guidelines, performance metrics and safety culture on June 24, 2020, and submitted a final report to the WSD on June 26, 2020. Section 8389(c) requires the WSD to analyze the WSAB's input for Commission consideration.

The WSD's analysis appears in Attachment 1 to this Resolution. In summary, the WSD fully incorporated six recommendations, incorporated nine with modification, and declined to incorporate four recommendations. Those recommendations are as follows:

Table 1.1 Summary of WSAB WMP Recommendations

Fully Incorporate	**Incorporate with Adjustments**	**Do Not Incorporate at this time**
1.2 State and Federal Rules and Requirements Should Be Included and Explained in the Narrative of WMPs	1.1 Topical Organization by WMP Program with a Focus on Lessons Learned	3.6 Resolving California Utilities' Resource Constraints
1.4 Strike a Balance Between Data Submission Requirements, Quarterly Reporting and Program Implementation	1.3 Submission Schedules that Set Up All Parties for Success	4.1 Develop an Electric Utility Resiliency and Risk Reduction Threshold (SHEUR)
2.1 Risk Spend Efficiency (RSE) Analysis Required for Each Mitigation Measure	2.2 Train and Retain Qualified Electrical Workers	6.1 The Wildfire Safety Division Should Remain at the CPUC
2.4 Standardized Data to Allow	2.3 Risk Assessment and Mapping to Determine Location of Wildfire Mitigation Measures and	6.2 Future Issues for Consideration

Cross-Utility Comparisons	Update CPUC Fire-Threat Maps More Frequently	
3.3 Reporting Expert Qualifications and Scientific Justification for Decision-Making	3.1 Scientific Review of Modeling Methods and Assumptions	
4.2 Community Outreach and Emergency Preparedness Performance Metrics and Data Reporting	3.2 Development of a Data Access Portal for Interconnected Data Repositories (interim step)	
	3.4 Robust Training Programs and Workforce Equity	
	3.5 Aligning Vegetation Management Practices with Best Available Science	
	3.7 Wildfire Mitigation Program Cost Review and Costs Recovery (interim step)[4]	

Table 1.2 Safety Culture recommendations

Fully Incorporate	**Incorporate with Adjustments**	**Do Not Incorporate at this time**
N/A	5.1 Develop a Unit Within or Outside of the	5.2 Insert Safety Language into Investor

[4]Cost-reasonableness review is statutorily precluded for the WMP. 2021 WMP guideline recommendations intend to identify each electrical corporation's ratepayer cost increases for implementing its WMP programs and initiatives.

	Utility, to Study Black Swan Events and Predict Potential Future Events	Owned Utility Board Member Job Descriptions
		5.3 Ensure Consistent Compliance with High-Level Safety Standard
		5.4 Post-Accident Debriefing and Learning

Recommendations that were not incorporated may also be longer-term processes that utilities may not be able to fully implement before the 2021 WMP update.

The Commission has evaluated the WSD's discussion of the WSAB recommendations above and in Attachment 1 and is satisfied with the treatment given those recommendations.

2. **Attachment 2.1: Changes to WMP) Guidelines**

   Attachment 2.2: 2021 WMP Guidelines Template

   Attachment 2.3: 2021 Performance Metrics Data Template

   Attachment 2.4: 2021 Maturity Model

The WMP requirements are generally the same as in 2020 but have been restructured for streamlined reporting and evaluation. Definitions of metrics have been clarified and tables have been altered to improve overall reporting structure.

Key changes in the 2021 process over 2020 include the following required elements:

a. A revised standard WMP format (Attachment 2.1) for all WMP filers is required so WMPs all include similar information in the same format.

b. The revised format streamlines the data presented in the WMPs by eliminating duplication and certain data that will be provided to the WSD via quarterly data submissions in Geographic Information System (GIS) format.

c. Standard data is required of all WMP filers, in tabulated form, with additional and supporting GIS data so wildfire mitigation plan assessments are increasingly guided by data. Use of data focused on key drivers of utility ignition risk should help alleviate the risk of catastrophic wildfire over time and allow for tracking of electrical corporation progress and compliance.

d. The revised template (Attachment 2.2) includes a "completeness checklist" detailing the 22 statutory requirements of AB 1054.

e. The revised template includes tables for summarizing the projected costs of mitigations proposed in the WMP, with a column for actual 2020 expenditures.

f. The revised template includes a table for estimates of the ratepayer impacts of proposed mitigation expenditures.

g. To consolidate data and analysis related to PSPS, the revised WMP Template includes a PSPS section.

h. The Performance Metrics Data Template (Attachment 2.3) is an Excel spreadsheet for reporting non-spatial data,[5] which the WSD will require on a quarterly basis to align with GIS data submissions.

i. There are no recommended substantive changes to the "maturity model" (Attachment 2.4). This document requires WMP filers to complete a survey reporting current wildfire mitigation practices in 52 categories, as well as

[5] Non-spatial data refers to the tables embedded in the WMP Guidelines embedded in Attachment 2.2.

planned improvements in each category over the next three years. The WSD conducts a maturity assessment to assess the filer's ability to reduce wildfire risk and its corresponding maturity level, which will be included as part of the WSD's 2021 WMP evaluation

The Commission has reviewed each of the Attachments and finds they appropriately update the WMP submissions to meet concerns raised in the last review.

3. **Attachment 3: Changes to WMP Process**

All provisions of WSD-001 remain in place for the 2021 WMP submission process. Three major recommendations are adopted to address the key challenges in the WMP timeline, schedule and process:

A. Phased approach to WMP submissions and review

The challenging task of reviewing all WMPs in a statutorily imposed 90-day period showed that the WSD and stakeholders need additional time and resources to properly evaluate each WMP. The data request process also proved difficult for both the WSD and electrical corporations and impinged on the 90-day review period.

For the 2021 WMP cycle, it is important to implement key changes to reduce constraints on the process. The 2021 WMP timeline will follow a modified approach, in which large utilities and SMJUs/ITOs submit WMPs one month apart. This phased approach will allow the WSD more time to review each WMP, and smaller IOUs more time to prepare their WMPs.

B. Quarterly Report data submission supplants some annual requirements

An annual data submission process is not ideal for utilities, the WSD, or stakeholders. It is challenging for utilities to provide complete data along with

the WMP narrative within the two-month WMP preparation window.[6] For the WSD and stakeholders, annual data is too infrequent to meaningfully track utility progress, outcomes and prepare for subsequent WMP reviews.

By replacing some data requests to supplement the annual WMP with data in the quarterly reports, these problems are addressed. Quarterly reports enable the WSD to monitor utility data more frequently and shift the data review to the off-season months. Insights generated from the quarterly reports reduce analysis time during annual WMP review, leading to a faster review process.

The quarterly report structure is not identical to the WMP data requirements. Therefore, for 2021, all annual data requirements are moved into the quarterly report (spatial and non-spatial) format, and data requirements are removed from the annual WMP. The insights generated from quarterly reports should reduce analysis time during the annual WMP review, leading to a faster and higher quality review process. The WSD may modify the quarterly report schedule or cadence as deemed necessary via written notice to stakeholders.

C. 2021 Filing and Action Timetable

The 2021 WMP timeline will follow a modified approach, in which large utilities and SMJUs/ITOs will submit WMPs one month apart. This phased approach will allow the WSD more time to review each WMP, and smaller IOUs more time to prepare their WMPs. The WSD may modify the 2021 WMP schedule as deemed necessary via written notice to stakeholders subject to the statutory parameters set forth in § 8386(b).[7]

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[6] In accordance with § 8389, the Commission is required to annually approve the WSD's recommendations on WMP requirements among other things. Traditionally, the schedule for WMPs requires an early February submittal – providing approximately two months between Commission approval of WMP requirements and the filing deadline.

[7] "In calendar year 2020, and thereafter, the plan shall cover at least a three-year period. The division shall establish a schedule for the submission of subsequent comprehensive wildfire mitigation plans, which may allow for the staggering of compliance periods for each electrical corporation. In its discretion, the division may allow the annual submissions to be updates to the last approved comprehensive wildfire mitigation plan; provided, that each electrical

Footnote continued on next page.

Table 2: 2021 WMP Cycle Timeline for PG&E, SCE and SDG&E

Date	Action
February 5, 2021	WMP submission deadline for large IOUs
March 2-3, 2021	WSD Workshops for IOUs
March 17, 2021	Public Comments due for large IOU WMPs
March 24, 2021	Reply comments due
May 2021	WSD published draft resolution(s) and action statements for large IOU WMPs
June 2021	Earliest date Commission may ratify WSD resolution(s)

Table 3: 2021 WMP Cycle Timeline for SMJUs and ITOs

Date	Action
March 5, 2021	WMP submission deadline for SMJUs/ITOs
March 30, 2021	WSD Workshops for SMJUs/ITOs
April 14, 2021	Public Comments due for SMJU/ITO WMPs
April 21, 2021	Reply comments due
June 2021	WSD published draft resolution(s) and action statements for SMJU/ITO WMPs
July 2021	Earliest date Commission ratify WSD resolution(s)

The Commission is satisfied that the more regular data submissions and the timing changes the WSD recommends will improve the WMP review process for the WSD, the Commission and stakeholders.

4. Attachment 4: Annual Safety Culture Assessment Process

Pursuant to § 8389, by December 1, 2020, and annually thereafter, the Commission, after consultation with the WSD, must adopt and approve a

corporation shall submit a comprehensive wildfire mitigation plan at least once every three years."

process for the WSD to conduct annual safety culture assessments for each electrical corporation subject to the Commission's jurisdiction.

The WSD's annual Safety Culture Assessment is distinct from the broader safety culture assessment required of the Commission by § 8386(2). The WSD's annual Safety Culture Assessment will focus on foundational components of safety culture and components specific to wildfire risk. The WSD may phase in the proposed elements of the WSD's annual Safety Culture Assessment and may deploy a streamlined Safety Culture Assessment for SMJUs/ITOs.

The WSD will use assessment tools focused on whether electrical corporations are building a wildfire safety culture:

- An electrical corporation workforce survey intended to assess culture in areas particularly relevant to wildfire;
- An organizational self-assessment on elements of organizational policies and practices that heavily influence culture as well as each electrical corporation's targets and plans to improve;
- Safety governance documentation focused on lessons learned, evidence supporting the organizational self-assessment, detail regarding plans to improve, compliance with Board structure requirements pursuant to § 8389(e)(5) and § 8389(e)(3), and verifications of compliance with past related Commission directives, as applicable;
- Interviews and observational visits, as necessary.

The Commission has reviewed the WSD's Safety Culture Assessment proposals and Attachment 4 and is satisfied that the materials appropriately focus on safety culture in the wildfire context.

IV. COMMENTS

Pub. Util. Code § 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review. However, given that this resolution is issued outside of a formal proceeding, interested stakeholders need not have party status in R.18-10-007 in order to submit comments on the

resolution. Please note that comments are due 20 days from the mailing date of this resolution.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. This draft resolution was served on the service list of R.18-10-007 and posted on the WSD's website, www.cpuc.ca.gov/wsd, and it will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. AB 1054 and Commission Resolution WSD-001 require all California electrical corporations and independent transmission owners (ITOs) to file a Wildfire Mitigation Plan update for 2021 that conforms with Pub. Util. Code § 8386(c) and guidance provided by the WSD and served on the Rulemaking 18-10-007 service list as part of this resolution.
2. AB 1054 requires the WSD to consider and evaluate recommendations from the Wildfire Safety Advisory Board that were included in the WSAB June 24, 2020, Final Report.
3. The WSD's incorporation of many of WSAB's recommendations input is appropriate. Other WSAB recommendations are appropriately deferred to the next WMP cycle.
4. Pub. Util. Code §§ 8386(d)(1), (2) and (4) require the Commission to adopt, after consultation with the WSD, the following: (1) performance metrics for electrical corporations, (2) additional requirements for wildfire mitigation plans, and (4) a process for the division to conduct annual safety culture assessments for each electrical corporation. This Resolution with its Attachments meets each of the foregoing requirements.
5. The WMP review schedule herein appropriately balances the needs of stakeholders, the Commission and the WSD. The WSD may modify the 2021 WMP schedule as deemed necessary via written notice to stakeholders subject to the statutory parameters set forth in § 8386(b).
6. The WSD may modify the quarterly report schedule or cadence as deemed necessary via written notice to stakeholders.
7. The WSD may modify the 2021 Safety Culture Assessment schedule, as deemed necessary, via written notice to stakeholders.

8. The WSD may phase in elements of the proposed Safety Culture Assessment and may deploy a streamlined Safety Culture Assessment for SMJUs/ITOs as set forth in Attachment 4.
9. The Attachments to this Resolution reasonably address the requirements of §§ 8386(d)(1), (2) and (4).

THEREFORE, IT IS ORDERED THAT:

1. The contents in Attachments 1, 2.1, 2.2, 2.3, 2.4, 3, and 4 spell out electrical corporations' obligations pursuant to Pub. Util. Code §§ 8386(d)(1), (2) and (4) are hereby adopted.
2. Electrical corporations shall adhere to the requirements of this Resolution and its Attachments in their 2021 Wildfire Mitigation Plans.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on _____; the following Commissioners voting favorably thereon:

_____

Rachel Peterson
Acting Executive Director

WSD/CJT/gp2

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Resolution WSD-011. Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.

INFORMATION REGARDING SERVICE

I have electronically served all persons on the attached official service list who have provided an e-mail address for R.18-10-007.

Upon confirmation of this document's acceptance for filing, I will cause a Notice of Availability of the document to be served by U.S. mail on all parties listed in the "Party" category of the official service list for whom no e-mail address is provided.

The official service list I use is current as of today's date.

Dated October 12, 2020, at San Francisco, California.

/s/ GABRIELA PEREZ
Gabriela Perez

N O T I C E

Persons should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

* *

The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at (415) 703-2074 or TDD# (415) 703-2032 five working days in advance of the event.

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Attachment 9:

Draft Resolution WSD-012

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October 14, 2020 **Agenda ID 18861**

TO: STAKEHOLDERS TO COMPLIANCE PROCESS FOR WILDFIRE MITIGATION PLANS
Service List(s): R.18-10-007

Enclosed is Draft Resolution WSD-012 and associated appendix. Draft Resolution WSD-012 presents the Wildfire Safety Division's (WSD) implementation of Public Utilities Code Section 8389(d)(3). To implement Section (d)(3), Draft Resolution WSD-012 provides a recommended process for overseeing and enforcing electrical corporation compliance with approved wildfire mitigation plans (WMPs).

In making its recommendation, the WSD reviewed input from the public and the Wildfire Safety Advisory Board as well as learnings from its own experience performing field inspections and audits of electrical corporation compliance with WMPs. Draft Resolution WSD-012 is presented to the Commission for its approval prior to the December 1, 2020 statutory deadline.

Pursuant to Rule 14.5 of the Commission's Rules of Practice and Procedure, stakeholders may submit comments on Draft Resolution WSD-012. Comments shall be limited to ten (10) pages in length and should list the recommended changes to the Draft Resolution. Comments shall focus on factual, legal or technical errors in the proposed Draft Resolution.

Comments must be received by the Wildfire Safety Division no later than 20 days from the issuance of the Draft Resolution. Comments should be submitted to the following email address: wildfiresafetydivision@cpuc.ca.gov.

Stakeholders submitting comments on the Draft Resolution must also serve their comments on the service list of R.18-10-007. Comments that are not served on the service list of R.18-10-007 may not be considered. The WSD will post all

comments received on the following website:
https://www.cpuc.ca.gov/wsd/complianceprocess/.

Replies to comments will not be accepted nor considered if submitted.

Draft Resolution WSD-012 will appear on the agenda at the next Commission meeting, which is at least 30 days after the date of this letter. The Commission may vote to ratify WSD's Draft Resolution at that time or it may postpone a vote until a later meeting.

Sincerely,

Caroline Thomas Jacobs
Director, Wildfire Safety Division
California Public Utilities Commission

CTJ:sgu

Attachment

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Wildfire Safety Division
Resolution WSD-012
[Date]

R E S O L U T I O N

Resolution WSD-012. Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(3) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.

SUMMARY:

This Resolution implements the requirements of Public Utilities Code Sections 8389(d)(3), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.[1] The statute requires the following:

> (d) By December 1, 2020, and annually thereafter, the [C]ommission, after consultation with the [Wildfire Safety D]ivision], shall adopt and approve all of the following:
>
> (3) A wildfire mitigation plan compliance process.

To implement Sections (d)(3), this Resolution provides a recommended process for overseeing Wildfire Mitigation Plan (WMP) compliance for the electrical corporations.

Assembly Bill (AB) 1054 (2019) directs the Wildfire Safety Division (WSD) to oversee compliance with the electrical corporations' approved WMPs. This Resolution articulates the WSD's compliance process based on stakeholder comments, the California Wildfire Safety Advisory Board's (WSAB)

[1] All statutory references are to the Public Utilities Code. Subsection (d)(1), (2) and (4) relate to WMP review/approval and are addressed in a separate Resolution.

June 24, 2020, input and the WSD's experience to date with 2020 WMP compliance assessments.[2]

The compliance process is included as an attachment to this Resolution.

- **Attachment 1: Wildfire Mitigation Plan Compliance Process**
  This document contains the WSD's compliance process for electrical corporations' approved WMPs.

PROPOSED OUTCOME:

- Provides direction to electrical corporations on demonstrating compliance with WMP initiatives.
- Retains operational flexibility to address dynamic field conditions and necessary improvements.
- Incorporates the Wildfire Safety Advisory Board's (WSAB) proposed coordination recommendation.
- Proposes an expedited resolution timeframe for WMP defects.

SAFETY CONSIDERATIONS:

- Mitigation of catastrophic wildfires in California is among the most important safety challenges the Commission-regulated electrical corporations face. A WMP lists an electrical corporation's proposed actions to mitigate catastrophic wildfire risk. Therefore, enforcing electrical corporation compliance with WMPs is essential to public safety.
- By implementing measures such as vegetation management, system hardening (such as insulating

[2] The elements of the proposed WMP compliance process are included as an attachment to this Resolution.

overhead lines and removing or upgrading equipment most likely to cause fire ignition), improved inspection and maintenance, situational awareness (cameras, weather stations, and use of data to predict areas of highest fire threat), improved community engagement and awareness, and other measures, electrical corporation-caused catastrophic wildfire risk should be reduced over time.

- Compliance with WMPs is essential to achieving a reduction in catastrophic wildfires.

ESTIMATED COST:

- This Resolution does not address or approve costs, but instead focuses on overseeing compliance with WMP requirements.
- WMP costs are to be addressed in electrical corporation General Rate Cases or other applications.

Background

The Commission opened Rulemaking (R.) 18-10-007 in 2018 to review the 2019 WMPs and approved those WMPs in Commission decisions pursuant to Senate Bill 901. AB 1054 moved the review of WMPs to the WSD. The legislation also added new provisions in § 8389(d) for the Commission to annually adopt and approve a WMP compliance process. The legislation also added new provisions in § 8386 for the WSD (with Commission involvement as discussed below) to oversee electrical corporation compliance with the approved WMPs.

The Commission adopted Resolution WSD-001 setting forth the process for review of the 2020 WMPs in light of AB 1054's transfer of responsibility for review of WMPs to WSD. In June 2020, the Commission ratified the WSD's approval all electrical corporations' WMPs in Resolutions WSD-002 - 009 except Bear Valley Electric Service (BVES).

The WSD Compliance Branch reviewed the approved WMPs and developed a strategy and processes to perform its compliance responsibilities. Attachment 1 outlines the WSD's adaptive approach to identify priority WMP initiatives for compliance assurance and procedures to assess electrical corporations' compliance with wildfire safety and implementation of their approved WMPs.

The WSD's compliance process will evolve and may be modified over time, as lessons are learned in the field and circumstances evolve, subject to the Commission's adoption and approval annually under § 8389(d)(3). The goal of the WSD is to reduce wildfire risk and further minimize public safety power shutoff (PSPS) events by using available information and data collected during inspections to assess effectiveness of WMP initiatives and timely implementation.

By monitoring compliance with critical wildfire safety activities and measuring the reduction of wildfire risk, the WSD strives to implement its vision for a sustainable California, with no catastrophic electrical corporation-related wildfires, and access to safe, affordable and reliable electricity. By determining compliance based on the occurrence of identified defects and an annual review process of overall compliance viewed in retrospect, the WSD aims to improve electrical corporation-related wildfire safety across California.

I. STAFF PROPOSALS, WORKSHOP AND COMMENTS

On September 18, 2020, the WSD circulated the "Draft Wildfire Mitigation Plan Compliance Process" staff proposal. The WSD conducted a remote workshop on September 29, 2020 (due to the COVID-19 pandemic) to present to stakeholders and the public the proposed process for enforcing and overseeing electrical corporation compliance with WMPs.

On October 2, 2020, nine electrical corporations, stakeholder groups and individuals submitted comments on the staff proposals and workshop.[3] Based on the comments, this Resolution adopts the following refinements to the staff proposal:

- Additional background and explanation of authorities to address noncompliance have been added to the compliance process.
- Additional clarification of the defect resolution process has been added to the compliance process.
- Additional clarification has been added to the defect resolution timing proposal stating that only timing of WMP defect resolution is impacted and that there will be ongoing alignment of defect severity definitions and severity determination with General Order 95, Rule 18.
- Additional clarification has been added on the WSD outcome-based approach and ongoing oversight of approved WMPs.

Among comments and suggestions that were incorporated into the final proposal, reflected in the Attachment to this Resolution:

- The IOUs and Mussey Grade Road Alliance requested that key terms in the compliance process be defined.

[3] The following stakeholders submitted comments: California Public Advocates Office, Green Power Institute, Mussey Grade Road Alliance, Protect Our Communities Foundation, Pacific Gas & Electric, San Diego Gas & Electric, Small Business Utility Advocates, Southern California Edison, and The Utility Rate Network (TURN).

- The Mussey Grade Road Alliance stated that coordination will be necessary to avoid interruptions of oversight during the transition to the California Natural Resources Agency.
- The IOUs requested the annual compliance period be from January to December to align with their other planning and reporting cadences.
- The Protect Our Communities Foundation expressed concerns that the WSD and CPUC were limiting the effectiveness of compliance efforts through overly narrow interpretations of statutory authorities in both §§ 326 and 8386.
- The Protect Our Communities Foundation stated that tracking PSPS outcomes is not the most effective way to mitigate PSPS impacts.
- TURN and the Protect Our Communities Foundation stated WSD should look at outcomes rather than strict compliance with the WMP that could have adverse impacts on rate-payers and/or fail to reduce wildfire risk and PSPS events.

II. DISCUSSION

1. Attachment 1: Compliance Process

The compliance process included as Attachment 1 to this Resolution was designed to oversee electrical corporation compliance with wildfire safety per § 8386.3(c). The compliance process is divided into two major components that describe the Ongoing and Annual Compliance Assessments that the WSD will undertake; the process also sets forth Consequences of Compliance Assessments. Details of these processes are described in Section 4, "Proposed Compliance Process" in Attachment 1 to this Resolution and are summarized here:

- Ongoing Compliance Assessment where the WSD will evaluate electrical corporations' implementation of WMPs through field inspections, audits, Independent Evaluator

reports, customer complaints and other regular reporting submissions as requested by the WSD. The WSD will verify actions committed to by electrical corporations in their currently approved plans.

- Annual Compliance Assessment where the WSD will assess an electrical corporation's compliance with its WMP through the review of the electrical corporations' annual compliance reports, review of the Independent Evaluators' annual reports and assessment of whether each electrical corporation substantially complies with its WMP during the prior compliance period.
- Consequences of Compliance Assessments where WSD will work with the electrical corporations to minimize and/or resolve wildfire safety issues and noncompliance with WMP initiatives.

Specific consequences resulting from the compliance assessment will include:

- Notices of non-compliance resulting from a failure to timely correct defects.
- The WSD may recommend that the Commission pursue an enforcement action against the electrical corporation for noncompliance with its approved plan, pursuant to § 8389(g).

Depending on the level of defect severity—with a range of severe, moderate, and minor defects—the WSD will require repairs in intervals that depend on severity and the location of the defect:

Category	**Correction**
Category 1 - Severe	Immediate resolution
Category 2 - Moderate	1-2 months (in HFTD Tier 3) 3-6 months (in HFTD Tier 2) 6 months (if relevant to worker safety)

	12 months or scheduled in WMP update (other)
Category 3 - Minor	12 months or resolution schedule included in WMP update

Following any WSD recommendation to the Commission, and pursuant to the Commission's enforcement authority, the Commission or its staff may issue a citation or other enforcement action if an electrical corporation does not correct the identified defects on the prescribed timelines shown above.

Additionally, through linking outcomes to WMP performance metrics, the WSD can focus compliance tracking on electrical corporations' improvement of outcomes and reduction of risk.

2. WSAB Recommendations

Section 8389(b) directs the WSAB to make recommendations to the WSD by June 30, 2020 and annually thereafter on:

- Appropriate performance metrics and processes for determining each electrical corporation's compliance with its approved WMP.

The WSAB approved its recommendations on the 2021 WMP guidelines, performance metrics and safety culture on June 24, 2020, and submitted a final report to the WSD on June 26, 2020. Section 8389(c) requires the WSD to analyze the WSAB's input for Commission consideration.

The compliance process has incorporated the WSAB recommendation in Section 5.4 through the establishment of routine coordination between WSD and the CPUC's Safety Enforcement Division (SED) on the resolution of compliance issues.

The compliance process included as Attachment 1 to this Resolution has been designed to maintain the necessary operational flexibility to address those modifications incorporated into the 2021 WMPs.

III. COMMENTS

Pub. Util. Code § 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review. However, given that this resolution is issued outside of a formal proceeding, interested stakeholders need not have party status in R.18-10-007 in order to submit comments on the resolution. Please note that comments are due 20 days from the mailing date of this resolution.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. This draft resolution was served on the service list of R.18-10-007 and posted on the WSD's website, https://www.cpuc.ca.gov/wsd/complianceprocess/, and it will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. Pub. Util. Code §§ 326(a)(1) requires the WSD to oversee and enforce electrical corporations' compliance with wildfire safety pursuant to Chapter 6 (commencing with § 8385) of Division 4 and § 8386.3(c) requires WSD to oversee compliance with the WMPs.
2. The attached compliance process incorporates the WSAB recommendation in Section 5.4 through the establishment of routine coordination between WSD and the CPUC's Safety Enforcement Division on the resolution of compliance issues.
3. The attached compliance process considered input of stakeholders through a workshop and written comments.
4. The attached compliance process recognizes WSD may identify priorities for WMP initiative compliance assurance and sets out procedures to assess electrical corporations' compliance with wildfire safety and implementation of their approved WMPs.
5. The attached compliance process will advance the goal of mitigating the risk of electrical corporation-caused catastrophic wildfires.
6. Pub. Util. Code §§ 8386(d)(3) requires the Commission to adopt and approve, after consultation with the WSD, a WMP compliance process. This Resolution with its Attachment meets the foregoing requirement.

7. The Attachment to this Resolution reasonably addresses the requirements of §§ 8386(d)(3).

THEREFORE, IT IS ORDERED THAT:

1. The contents in Attachment 1 propose a WMP compliance process pursuant to Pub. Util. Code §§ 8386(d)(3) and is hereby adopted.
2. Electrical corporations shall adhere to the requirements of this Resolution and its Attachment and shall cooperate with the Wildfire Safety Division in its implementation of the compliance process.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on _____; the following Commissioners voting favorably thereon:

_____

Rachel Peterson
Acting Executive Director

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

RESOLUTION ALJ-390 Dismisses K.20-08-010, Appeal of David Trevor O'Donnell dba PS Architecture Tours from Citation No. F-5697

INFORMATION REGARDING SERVICE

I have electronically served all persons on the attached official service list who have provided an e-mail address for K.20-08-010.

Upon confirmation of this document's acceptance for filing, I will cause a copy of the filed document to be served by U.S. mail on all parties listed in the "Party" category of the official service list for whom no e-mail address is provided.

Dated October 14, 2020, at San Francisco, California.

/s/ SHANE GUTTO
Shane Gutto

NOTICE

Persons should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

* *

The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at (415) 703-2074 or TDD# (415) 703-2032 five working days in advance of the event

Attachment 10:

November 2, 2020 PCF Comments on Draft

Resolution WSD-011

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In re Wildfire Safety Division Resolution WSD-011, Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.	Wildfire Safety Division re 2021 Wildfire Mitigation Plan Requirements.
Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018).	Rulemaking 18-10-007 (Filed October 25, 2018)

THE PROTECT OUR COMMUNITIES FOUNDATION COMMENTS ON DRAFT RESOLUTION WSD-011

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Dated: November 2, 2020

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In re Wildfire Safety Division Resolution WSD-011, Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.	Wildfire Safety Division re 2021 Wildfire Mitigation Plan Requirements.
Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018).	Rulemaking 18-10-007 (Filed October 25, 2018)

THE PROTECT OUR COMMUNITIES FOUNDATION COMMENTS ON DRAFT RESOLUTION WSD-011

Pursuant to Rule 14.5 of the California Public Utilities Commission (Commission) Rules of Practice and Procedure (Rules) and the cover letter to Draft Resolution WSD-011, The Protect Our Communities Foundation (PCF) respectfully submits the following comments on Draft Resolution WSD-011 by serving them on the Wildfire Safety Division at wildfiresafetydivision@cpuc.ca.gov and the service list in R.18-10-007.[1]

[1] Cover letter from Director Jacobs to Stakeholders enclosing Draft Resolution WSD-011 and associated appendices (October 12, 2020), p. 1.

I. INTRODUCTION

Draft Resolution WSD-011 incorporates many of the recommendations PCF has made in comments submitted since the adoption of Resolution WSD-002; including, among others, requiring the utilities to incorporate applicable legal requirements in WMPs, requiring science-based decision-making, and recognizing that corporate self-assessments may not be inherently reliable.[2] As described below, PCF urges the Commission to incorporate certain clarifications and revisions to WSD-011 before adopting the recommendations therein.

II. THE DRAFT RESOLUTION'S ANALYSIS OF THE WSAB'S RECOMMENDATIONS SHOULD BE REVISED AND CLARIFIED.

Section 8389(b) requires the Wildfire Safety Advisory Board (WSAB) to make recommendations to WSD regarding (1) performance metrics and processes for determining the utilities' compliance with their WMPs; (2) additional requirements for WMPs; and (3) the scope and process for assessing the utilities' safety culture.[3] Subsection (c) of Section 8389 then requires WSD to "issue an analysis and recommendation to the commission" about WSAB's recommendations.[4] Attachment 1 to WSD-011 "contains the WSD's analysis of the WSAB recommendations"[5] as required by Section 8389(b). PCF recommends the following clarifications and revisions prior to the Commission's adoption of WSD's recommendations regarding WSAB's recommendations.

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[2] *See e.g.,* The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020); The Protect Our Communities Foundation's Comments on Wildfire Safety Advisory Board's Draft Recommendations on the 2021 WMP Guidelines, Performance Metrics, and Safety Culture (June 15, 2020); The Protect Our Communities Foundation's Comments on Proposed Roadmap (June 30, 2020); The Protect Our Communities Foundation's Comments on Safety Certification Requests (July 9, 2020); The Protect Our Communities Foundation's Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing the SHEUR Threshold (August 26, 2020).

[3] Pub. Util. Code, § 8389, subd. (b).

[4] Pub. Util. Code, § 8389, subd. (c).

[5] Draft Resolution WSD-011, p. 2.

A. PCF Supports WSD-011's Adoption of the WSAB's Recommendation to Include Legal References Throughout the WMP.

A central theme of PCF's advocacy before both the WSAB and WSD has included the point that wildfire safety will advance by focusing on compliance with and enforcement of applicable legal requirements.[6] Accordingly, PCF supports the WSAB and WSD recommendation requiring the utilities to cite and describe relevant state and federal statutes, and agrees that this requirement is likely to "provide significant value to WSD in tracking compliance to legislative requirements."[7] The requirement will also expose utilities that misinterpret or misapply existing legal requirements, and better allow decision-makers to address future noncompliance at its source.

B. Science-Based Decision-Making Remains Critical and Required by CEQA.

WSD-011 fully incorporates WSAB's recommendation regarding "reporting expert qualifications and scientific justification for decision-making," and incorporates with adjustments "scientific review of modeling methods and assumptions" and "aligning vegetation management practices with best available science."[8] However, WSD-011 also rejects WSAB's recommendation that the utilities should coordinate and complete and ongoing study to ensure vegetation management practices align with science.[9]

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[6] *See e.g.* PCF's Comments on Draft Recommendations on the 2021 WMP Guidelines, Performance Metrics, and Safety Culture (June 15, 2020), p. 1-17; The Protect Our Communities Foundation's Comments on Proposed Roadmap (June 30, 2020), p. 1 et seq.; The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 6.

[7] Draft Resolution WSD-011, Attachment 1, p. 5.

[8] Draft Resolution WSD-011, p. 5; Draft Resolution WSD-011, Attachment 1, p. 10, 12.

[9] Draft Resolution WSD-011, Attachment 1, p. 12.

As PCF has commented, WSAB's proposal that the utilities conduct a study is already required by the California Environmental Quality Act (CEQA).[10] CEQA requires that the public and decision-makers be informed of the environmental consequences of projects before they are undertaken; and it requires scientific and fact-based decision-making, consideration of cumulative impacts and alternatives, and implementation of feasible mitigation.[11] Thus, while PCF supports the WSAB's recommendations, and while the Commission need not recite black letter law in its resolutions, PCF recommends that WSD-011 be revised to make clear that its rejection of the WSAB's recommendation was not intended as rejection of CEQA's mandates.

C. PCF Supports Rejection of WSAB's Recommendation Suggesting the Utilities' Have Resource Constraints Because the Utilities Have Ample – if Not Excessive - Resources.

WSD-011 appropriately declines to incorporate WSAB's recommendations relating to the utilities' purported resource constraints.[12] Far from resource constraints, official notice may be taken of the fact that SDG&E's and SoCalGas' rates and earnings have surged.[13]

D. WSD-011 Should Be Revised to Incorporate WSAB's Recommendations that Reasonableness Reviews Should Be Thorough.

The draft resolution states that "WMP costs are to be addressed in electrical corporation or other applications, not in WMPs or safety culture assessments."[14]

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[10] *See e.g.* The Protect Our Communities Foundation's Comments on Wildfire Safety Advisory Board's Draft Recommendations on the 2021 WMP Guidelines, Performance Metrics, and Safety Culture (June 15, 2020), p. 15-17.
[11] *See e.g.* Cal. Code Regs., tit. 14, § 15064, subd. (b)(1); Cal. Code Regs., tit. 14, § 15126.6; Cal. Code Regs., tit. 14, § 15088; Cal. Code Regs., tit. 14, § 15130; *Laurel Heights Improvement Assn. v. Regents of University of Cal.* (1988) 47 Cal.3d 376, 392, 394.
[12] Draft Resolution WSD-011, Attachment 1, p. 13.
[13] *See e.g.* A.17-10-007/008, The Protect Our Communities Foundation Reply Brief (October 5, 2020), p. 1, 4, citing to among other things D.19-09-051 and https://www.sempra.com/sempra-energy-reports-second-quarter-2020-earnings-results.
[14] Draft Resolution WSD-011, p. 4.

However, as discussed in Section V below, Section 8386.4(b) does not go so far as to suggest that the WMP process should not "address" costs at all,[15] and WSAB's concerns about an information gap between the WMP approval process and the WMP cost-consideration process[16] are well founded.

SDG&E recently attempted to take advantage of the perceived information gap when, in Advice Letter 3629-E, SDG&E purported to notify the Commission that "SDG&E has incurred costs exceeding its annual revenue requirement for vegetation management for fiscal year 2020, including costs incurred in implementing the SDG&E Enhanced Vegetation Management (EVM) Program described in its 2020 Wildfire Mitigation Plan (WMP)."[17] This very program was called out by the Commission in Resolution WSD-005 as noncompliant with D.19-05-039,[18] which prohibits SDG&E from proceeding with vegetation management practices unsupported by scientific evidence or other data.[19]

[15] Pub. Util. Code, § 8386.4, subd. (b) ("(1) The commission shall consider whether the cost of implementing each electrical corporation's plan is just and reasonable in its general rate case application. Each electrical corporation shall establish a memorandum account to track costs incurred for fire risk mitigation that are not otherwise covered in the electrical corporation's revenue requirements. The commission shall review the costs in the memorandum accounts and disallow recovery of those costs the commission deems unreasonable. (2) In lieu of paragraph (1), an electrical corporation may elect to file an application for recovery of the cost of implementing its plan as accounted in the memorandum account at the conclusion of the time period covered by the plan. If the electrical corporation files an application for cost recovery pursuant to this paragraph, the commission shall issue a proposed decision within 12 months of the filing date of the application unless the commission issues an order extending the deadline upon a finding of good cause.").
[16] Draft Resolution WSD-011, Attachment 1, p. 14.
[17] SDG&E AL 3629, p. 1.
[18] Resolution WSD-005, *Resolution Ratifying Action of the Wildfire Safety Division on San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386* (June 11, 2020), Appendix A, A9 ("…detailed discussion or evidence of the effect of these increased vegetation clearances on utility ignitions remains lacking. Specifically, SDG&E does not detail proposed guidelines for where such a clearance is both feasible and necessary, or scientific evidence or other data showing that such clearance will reduce wildfire risk, as directed in our decision approving SDG&E's 2019 WMP.").
[19] D.19-05-039, *Decision on San Diego Gas & electric Company's 2019 Wildfire Mitigation Plan Pursuant to Senate Bill 901* (May 30, 2019), p. 29-30 (OP 5).

In its Remedial Compliance Plan (RCP), SDG&E admitted that it has not and cannot yet comply with the requirements in D.19-05-039 to ensure that its enhanced vegetation management program be grounded in science before proceeding which such a program.[20] Thus, SDG&E should not be spending *any* money on its enhanced vegetation management program because its program remains entirely unjustified and unauthorized. Yet, SDG&E attempts to invoke D.19-09-051 – its GRC decision – in an attempt to conjure a contrary result.

SDG&E's attempt to reverse findings in Resolution WSD-005 and D.19-05-039 finds no support in D.19-09-051. D.19-09-051 did not and could not have determined either of SDG&E's WMPs are just and reasonable, because SDG&E had not yet prepared its first WMP at the time it filed its TY 2019 GRC application or at the time it presented testimony in the GRC proceeding.[21] Although wildfire mitigation plans were first required by SB 1028[22] which was effective January 1, 2017, SDG&E did not file its first WMP until February 6, 2019, as ordered by the Assigned Commissioner's Scoping Memo and Ruling in R.18-10-007.[23] Nor did SDG&E apply for cost approval in the context of its relatively recent petition for modification of D.19-09-051.[24] More coordination between the WMP approval process and the cost-approval application would deter SDG&E from sowing confusion and making untenable arguments in the future.

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[20] San Diego Gas & Electric Company's 2020 Wildfire Mitigation Plan Remedial Compliance Plan (July 27, 2020), p. 5 (SDG&E admitting it has not yet gathered enough data to support its proposed enhanced vegetation management); *compare* D.19-05-039, p. 29-30 (OP 5: allowing for enhanced vegetation only "if such a practice is supported by scientific evidence or other data showing that such clearance will reduce risk under wildfire conditions"); *see also* The Protect Our Communities Foundation's Comments on San Diego Gas & Electric Company's Remedial Compliance Plan (August 10, 2020), p. 11-14.

[21] D.19-09-051, *Decision Addressing the Test Year 2019 General Rate Cases of San Diego Gas & Electric Company and Southern California Gas Company* (September 26, 2019), p. 277 (SDG&E's "GRC application was filed in late 2017 and so the most recent data available at the time of preparing and filing the application or 2016 data.").

[22] Stats 2016, Ch. 598 (SB 1028).

[23] R.18-10-007, San Diego Gas & Electric Company's Wildfire Mitigation Plan (February 6, 2019); R.18-10-007, Assigned Commissioner's Scoping Memo and Ruling (December 7, 2018), p. 4.

[24] A.17-10-007/008, Joint Petition for Modification of D.19-09-051 of Southern California Gas Company and San Diego Gas & Electric Company (April 9, 2020).

E. RSE Analysis is Already Required for All Risk Reduction Activities: WSD-011 Should Be Revised to Ensure Consistency with the Commission's Existing S-MAP and RAMP Directives.

PCF continues to have concerns about incorporating WSAB's recommendation regarding RSEs.[25] In PCF's comments on the SHEUR proposal, PCF demonstrated the inaccuracy of statements in the SHEUR proposal which suggest there "is no clear regulatory standard for how IOUs identify and quantify wildfire risk at this time" and that there "is no established acceptable level of operational risk an electrical utility should assume before initiating a PSPS."[26] PCF demonstrated to the contrary, explaining among other things that the settlement agreement signed by the utilities and approved by the Commission in D.18-12-014 defines "Risk Event" as "an occurrence or change of a particular set of circumstances that may have potentially adverse consequences and may require action to address….;" and that pursuant to D.18-12-014, the utilities are required to make the final selection of what to include in their RAMP reports based on "input received from SED, other interested CPUC staff, and interested parties."[27] PCF remains concerned that the recommendation in WSD-011 to adopt the WSAB's recommendation fails to reflect properly that an RSE analysis for each risk reduction activity is already required.[28] As the Commission has long held: "Without quantifying risk reduction, no meaningful ranking, prioritization or optimization of risk mitigations is possible, and the Commission's goals and processes set forth in D.14-12-025 are compromised."[29] The Commission should confirm that WSD-011 does not intend to negate already existing S-MAP and RAMP related mandates.

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[25] Draft Resolution WSD-011, Attachment 1, p. 7.
[26] WSAB Recommendations for Developing the SHEUR Threshold (August 11, 2020), p. 5.
[27] D.18-12-014, Attachment A, p. A-3, A-10.
[28] The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 7.
[29] D.16-08-018, p. 182 (Finding of Fact 33).

F. WSD Appropriately Declined to Adopt WSAB's Recommendation to Adopt an Electric Utility Resiliency and Risk Reduction Threshold Because Existing Requirements Already Require That PSPS Be Used as a Last-Resort.

PCF supports WSD-011's rejection of the WSAB recommendation to adopt a System Hardening for Electric Utility Resiliency (SHEUR) threshold[30] because WSAB's recommendation was based upon erroneous assumptions such as that "no established acceptable level of operational risk an electrical utility should assume before initiating a PSPS."[31] While PCF agrees that development of new metrics as a general matter is "better addressed" in the Commission's S-MAP proceeding," PCF continues to urge the Commission to focus on compliance with existing mandates rather than on creating new requirements, both in the PSPS context and more broadly.

In PCF's August 26, 2020 comments, PCF explained that in the PSPS context the Commission has been clear that "SDG&E's statutory obligation to operate its system safety requires SDG&E to shut off its system if doing so is necessary to protect public safety," and has explained that SDG&E has the "authority to shut off power under § 451 and § 399.2 in emergency situations when necessary to protect public safety" for more than a decade.[32] The Commission confirmed these principles several years later, explained that Sections 451 and 399.2 mean that "SDG&E should shut off power only as a last result, and only when SDG&E is convinced there is a significant risk that strong Santa Ana winds will topple power lines onto flammable vegetation."[33]

[30] Draft Resolution WSD-011, Attachment 1, p. 15.
[31] Wildfire Safety Advisory Board Recommendations for Developing the SHEUR Threshold (August 11, 2020), p. 4.
[32] D.09-09-030, p. 61; D.12-04-024, p. 24-25.
[33] D.12-04-024, p. 30.

The Commission has been clear that "there is a strong presumption that power should remain on for public safety reasons," that "SDG&E should rely on other measures, to the extent available, as an alternative to shutting off power,[34] and that the Commission's rationale in D.09-09-030 and D.12-04-024 applies to all the utilities.[35] Thus, PCF submits that the draft resolution properly rejects the WSAB recommendation regarding the SHEUR threshold, but that the rationale for doing so set forth therein should be revised.

III. PCF RECOMMENDS CHANGES TO CERTAIN RECOMMENDATIONS IN WSD-011 REGARDING ATTACHMENTS 2.1, 2.2, AND 2.3.

The draft resolution includes as Attachment 2.1 a summary of the major changes to the 2020 WMP Guidelines.[36] Attachment 2.2 consists of the proposed 2021 WMP Guidelines Template itself, while Attachment 2.3 "[p]rovides an Excel spreadsheet for completing the quarterly non-spacial data reports."[37] The resolution proposes these attachments in furtherance of the statutory obligation that "the commission, after consultation with the division, shall adopt and approve all of the following: (1) Performance metrics for electrical corporations. (2) Additional requirements for wildfire mitigation plans…"[38]

A. PCF Should Be Included in the List of Parties Recommending Against Changing the Definition of "Near Miss," And Now Cautions Against WSD-011's Proposed Use of the Term "Risk Event."

WSD-011 recognizes that PCF was one of the entities that provided comments on August 26, 2020.[39] On the next page, however, WSD-011 omits PCF from the list of parties that recommended against changing the definition of "near miss."[40]

[34] D.12-04-024, p. 30.
[35] Resolution ESRB-8.
[36] Draft Resolution WSD-011, p. 2.
[37] Draft Resolution WSD-011, p. 2.
[38] Pub. Util. Code § 8389, subd. (d)(1), (2); Draft Resolution WSD-001, p. 1.
[39] Draft Resolution WSD-011, p. 2.
[40] Draft Resolution WSD-011, p. 3.

PCF's cautioned against changing the definition of "near misses" because the proposed definition would have the opposite effect than intended.[41] WSD-011 adopted PCF's recommendation that "near miss" should not be narrowed.[42]

However, WSD-011 also includes a recommendation that the term "near miss" should be renamed as "risk events."[43] PCF recommends against the proposed renaming because the term "risk event" is already defined in D.18-12-014.[44] As the Commission's S-MAP and RAMP requirements are statutorily incorporated into the wildfire mitigation statutes,[45] the Commission should take great care not to define terms differently from one context to another.

B. The Proposed Definition of the Term "Rule" Should Be Revised to Include Commission Directives in Addition to Statutes.

As explained in Section II.A., above, wildfire safety will advance only with focus on ensuring compliance with and enforcement of applicable legal requirements, and PCF thus supports that WSD-011 requires the utilities to cite and describe relevant state and federal statutes and orders.[46] PCF recommends that the proposed definition of "Rule"[47] in WSD-011 be revised to reflect WSD-011's proposal that statutes *and* Commission directives be included.

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[41] The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 4.
[42] Draft Resolution WSD-011, Attachment 2.1, p. 17.
[43] *Ibid.*
[44] D.18-12-014, Attachment A, p. A-3 ("an occurrence or change of a particular set of circumstances that may have potentially adverse consequences and may require action to address….")
[45] Pub. Util. Code, § 8386, subd. (c)(11), (12).
[46] *See e.g.* PCF's Comments on Draft Recommendations on the 2021 WMP Guidelines, Performance Metrics, and Safety Culture (June 15, 2020), p. 1-17; The Protect Our Communities Foundation's Comments on Proposed Roadmap (June 30, 2020), p. 1 et seq.; The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 6; Draft Resolution WSD-011, Attachment 1, p. 5; Attachment 2.1, p. 28.
[47] Draft Resolution WSD-011, Attachment 2.2, p. 13.

In addition to making it easier for WSD to track compliance, requiring the utilities to cite and describe relevant statutes and orders will expose utilities that misinterpret or misapply legal requirements and Commission orders, and better allow decision-makers to address future noncompliance at its source.

C. WSD-011 Should Clarify if it Intends Different RSE Requirements Than Already Mandated: Any Such RSE Requirements Should Be Rejected and Related Definitions Should be Consistent With Those Already in Existence.

To the extent WSD-011 proposes RSE requirements different from existing mandates from the Commission's S-MAP and RAMP decisions - mandates that the Legislature expressly incorporated into the wildfire mitigation statutes[48] - they should be rejected. To the extent WSD-011 adheres to existing mandates, the wisdom of redundancy constitutes a policy-making question more than anything else. PCF has repeatedly detailed in its comments the utilities' – and particularly SDG&E's – history of noncompliance with the Commission's S-MAP and RAMP related directives. PCF does not repeat those comments here. Rather, PCF points out that some of the language used in WSD-011 could be improperly used by the utilities to depart from the Commission's S-MAP and RAMP-related directives in the WMP context.

For example, RSEs are required for all risk reduction measures, not only those identified by the utilities in a particular WMP as "mitigation," and RSEs have already long been required for each risk reduction measure. The natural result of properly identifying RSE values will improve resource allocation, by allowing for the prioritization of risk reduction measures as intended by the Commission years ago.[49]

[48] WMP Staff Proposal, p. 8; Pub. Util. Code, § 8386, subd. (c); D.19-05-036, p. 28-29, p. A2.
[49] D.16-08-018, p. 182 (Finding of Fact 33) (0.0"Without quantifying risk reduction, no meaningful ranking, prioritization or optimization of risk mitigations is possible, and the Commission's goals and processes set forth in D.14-12-025 are compromised.")

Additionally, PCF recommends that the Commission decline to adopt definitions different from those utilized in the S-MAP and RAMP context. In addition to "risk event" as discussed above, the definition of RSE provided in WSD-011 fails to adhere to the requirements of D.18-12-014 and could be misinterpreted by the utilities.[50]

IV. SUBJECTING THE MATURITY MODEL TO AUDIT AND VERIFICATION CONSTITUTES A NEEDED IMPROVEMENT.

The draft resolution explains that in "the 2021 WMP review, the WSD will assess progress on maturity by comparing the utility's progress from the utility's 2020 maturity survey, WMP and other data sources, subject to audit and verification."[51] The Maturity Model constitutes an additional attachment proposed in furtherance of the statutory obligation that "[b]y December 1, 2020, and annually thereafter, the commission, after consultation with the division, shall adopt and approve all of the following: (1) Performance metrics for electrical corporations. (2) Additional requirements for wildfire mitigation plans…"[52]

A. PCF Supports the Audit and Verification Requirements.

Although WSD-011 recommends no substantive changes in 2021 from the model utilized in 2020,[53] inclusion of the term "subject to audit and verification" in fact constitutes a marked improvement.

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[50] Resolution WSD-011, p. 13; *compare* D.18-12-014, Attachment A, p. A-8 – A-9 (Rows 10-11), p. A-13 (Row 25). SDG&E, for example, in the past has drawn an inappropriate distinction between "controls" and "mitigations" in an effort to shirk its responsibility to provide RSEs for all risk reduction activities. *See e.g.* I.19-11-010/011, The Protect Our Communities Foundation Reply in Support of its Proposal Regarding How This Proceeding Should Move Forward in Light of the Directives in D.20-01-002; and Comments on the Joint 2019 Risk Assessment and Mitigation Phase Report of Southern California Gas Company (U 904-G) and San Diego Gas & Electric Company (U 902-M) (April 6, 2020), p. 27-29. In a recent workshop, SDG&E committed to fixing the problem in its 2021 RAMP.

[51] Draft Resolution WSD-011, p. 3.

[52] Pub. Util. Code § 8389, subd. (d)(1), (2); Draft Resolution WSD-001, p. 1.

[53] Draft Resolution WSD-011, p. 7.

B. PCF Should Be Included in the List of Parties Recommending Against Reliance on Self-Reporting.[54]

WSD-011 recognizes that PCF was one of the entities that provided August 26, 2020.[55] On the next page, however, WSD-011 omits PCF from the list of parties cautioning against reliance on utilities' self-reporting.[56] PCF began raising these concerns last year – both in its motion for evidentiary hearings and in its January 2020 comments which PCF expressly incorporated in its August 26, 2020 comments in urging WSD to consider the utilities' self-interest when disclosing information.[57] PCF continues to urge WSD to move away from reliance upon self-serving corporate self-assessments, as PCF has long been advocating.[58]

V. THE PHASED TIMELINE PROVIDES AN ADDITIONAL RATIONALE FOR ESTABLISHING A PROCESS TO CONSIDER ALTERNATIVES, AND SHOULD BE REVISED TO INCLUDE DEADLINES FOR FILING COST-APPROVAL APPLICATIONS.

The draft resolution states that Attachment 3 "recommends an improved 2021 WMP evaluation schedule, timeline and process,"[59] and proposes to stagger the large IOUs and the smaller utilities submittal dates. Staggering compliance deadlines comes with the disadvantage that direct comparisons between the large IOUs and the others will be less likely. As PCF has commented repeatedly, the large IOUs have much to learn from the alternatives used by the smaller utilities.[60]

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[54] Draft Resolution WSD-011, p. 3.
[55] Draft Resolution WSD-011, p. 2.
[56] Draft Resolution WSD-011, p. 3.
[57] *Id.* at p. 5.
[58] R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 9-11; The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 5, 11.
[59] Draft Resolution WSD-011, p. 3.
[60] *See e.g.* R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 9-11.

A. Alternatives Could Be Considered in April.

The proposed timeline highlights the need for a mechanism for consideration of alternatives to the utilities' proposed wildfire risk reduction activities in general.[61] Evidentiary hearings, as PCF has long recommended as a tried and true mechanism for doing so, could be held in April and fit within the new proposed timeline.[62]

B. The Deadline for Cost-Approval Applications Should Be Incorporated.

The draft resolution also appropriately acknowledges that "WMP costs are to be addressed in electrical corporation or other applications, not in WMPs or safety culture assessments."[63] The wildfire mitigation statute that requires costs be addressed separately, however, does not go so far as to suggest that the WMP process should not at all address costs.[64]

PCF submits that the Commission should, in fact, consider the relationship between the WMP approval process and the cost approval process, because the longer time period between consideration of WMPs and the Commission's consideration of the costs of the programs contained within the WMPs, the easier it is for a utility to take advantage of a knowledge gap, and the higher the likelihood that the Commission's consideration of costs will appear to stakeholders and the public as a meaningless, post-hoc rationalization.

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[61] *See e.g.* R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 12-14.
[62] Draft Resolution WSD-011, p. 10.
[63] Draft Resolution WSD-011, p. 4.
[64] Pub. Util. Code, § 8386.4, subd. (b) ("(1) The commission shall consider whether the cost of implementing each electrical corporation's plan is just and reasonable in its general rate case application. Each electrical corporation shall establish a memorandum account to track costs incurred for fire risk mitigation that are not otherwise covered in the electrical corporation's revenue requirements. The commission shall review the costs in the memorandum accounts and disallow recovery of those costs the commission deems unreasonable. (2) In lieu of paragraph (1), an electrical corporation may elect to file an application for recovery of the cost of implementing its plan as accounted in the memorandum account at the conclusion of the time period covered by the plan. If the electrical corporation files an application for cost recovery pursuant to this paragraph, the commission shall issue a proposed decision within 12 months of the filing date of the application unless the commission issues an order extending the deadline upon a finding of good cause.").

To best ensure that the utilities are cost-effectively and meaningfully reducing wildfire risk, the Commission should include in the proposed timeline the utilities' deadlines for filing their cost-approval applications as close as possible to the date of WMP approval.

VI. PCF COMMENDS WSD-011 FOR INCLUDING COMPLIANCE WITH PAST COMMISSION DIRECTIVES IN THE SAFETY CULTURE ASSESSMENT PROPOSAL; BUT WSD SHOULD DEFER TO THE INDEPENDENT ASSESSMENT WHEN POSSIBLE AND SHOULD CONTINUE TO MOVE AWAY FROM RELIANCE ON CORPORATE SELF-ASSESSMENTS.

The draft resolution states that Attachment 4: Annual Safety Culture Assessment Process constitutes the "WSD's recommendation for annual safety culture assessments pursuant to Public Utilities Code § 8389(d)(4)."[65] The draft resolution proposes that WSD's annual safety culture assessment "be complementary to the broader safety culture assessment required of the Commission by Public Utilities Code § 8386.2."[66] Section 8386.2 requires an independent safety culture assessment which ratepayers may not be required to pay for.[67] PCF submits that the draft resolution should be revised to recognize the Section 8386.2 assessment as controlling instead of proposing that the two assessments should be "mutually informative."[68]

Additionally, PCF continues to urge WSD to move away from reliance upon self-serving self-assessments and submits that a mechanism for anonymous employee comments could serve to temper the inherently self-serving nature of corporate self-assessments overseen by management. [69]

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[65] Draft Resolution WSD-011, p. 3; Pub. Util. Code, § 8389, subd. (d)(4).
[66] Draft Resolution WSD-011, Attachment 4, p. 4.
[67] Pub. Util. Code, § 8386.2 ("The commission shall require a safety culture assessment of each electrical corporation to be conducted by an independent third-party evaluator. The commission shall set the schedule for each assessment, including updates to the assessment at least every five years. The electrical corporation shall not seek reimbursement for the costs of the assessment from ratepayers.").
[68] Draft Resolution WSD-011, Attachment 4, p. 6.
[69] R.18-10-007, The Protect Our Communities Foundation Comments on Wildfire Mitigation Plan Templates and Related Material (January 7, 2020), p. 9-11; The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture

With that said, PCF commends WSD-011 for deleting the unsupported assumptions in the draft proposal regarding S-MAP and RAMP compliance,[70] and instead including within the scope of WSD's safety culture assessment "verifications of compliance with past related Commission directives, as applicable."[71] PCF continues to advocate that the most revealing indicator of safety culture in the context of wildfire safety remains a utilities' compliance or non-compliance with the Commission's wildfire related directives.[72]

VII. CONCLUSION

PCF appreciates the opportunity to comment.

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November 2, 2020

Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 11.

[70] PCF raised concerns that the Safety Culture Proposal took as given that the "Commission's evaluation of safety-related performance metrics is an ongoing process in several proceedings, including Risk Assessment and Mitigation Phase (RAMP) and Safety Model Assessment Proceeding (S-MAP) portions of utility General Rate Cases." The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 10-12; citing to Safety Culture Proposal, p. 11.

[71] Draft Resolution WSD-011, p. 11.

[72] The Protect Our Communities Foundations' Comments on Wildfire Safety Division Staff Proposal on Changes to Wildfire Mitigation Plan Requirements and Metrics Tables, and Draft Recommendations for Developing a Safety Culture Assessment Process; and the Wildfire Safety Advisory Board Recommendations for Developing a SHEUR Threshold (August 26, 2020), p. 10-12; *see also* The Protect Our Communities Foundation's Comments on Safety Certification Requests (July 9, 2020).

Attachment 11:

November 3, 2020 PCF Comments on Draft

Resolution WSD-012

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In re Wildfire Safety Division Resolution WSD-012, Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(3) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.	Wildfire Safety Division re Wildfire Mitigation Plan Compliance Process
Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018).	Rulemaking 18-10-007 (Filed October 25, 2018)

THE PROTECT OUR COMMUNITIES FOUNDATION COMMENTS ON DRAFT RESOLUTION WSD-012

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Dated: November 3, 2020

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BEFORE THE PUBLIC UTILITIES COMMISSION
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THE PROTECT OUR COMMUNITIES FOUNDATION COMMENTS ON DRAFT RESOLUTION WSD-012

Pursuant to Rule 14.5 of the California Public Utilities Commission (Commission) Rules of Practice and Procedure (Rules) and the cover letter to Draft Resolution WSD-012, The Protect Our Communities Foundation (PCF) respectfully submits the following comments on Draft Resolution WSD-012 by serving them on the Wildfire Safety Division (WSD) at wildfiresafetydivision@cpuc.ca.gov and the service list in R.18-10-007.[1]

[1] Cover letter from Director Jacobs to Stakeholders enclosing Draft Resolution WSD-012 and associated appendix (October 14, 2020), p. 1.

I. INTRODUCTION

PCF appreciates that WSD-012 incorporated PCF's comments on multiple issues, including with respect to WSD's and the Commission's statutory authority, the fact that tracking PSPS outcomes is not the most effective way to mitigate PSPS impacts, and the fact that strict compliance with the utilities' defective 2020 WMPs could adversely affect ratepayers and the safety of the public at large.[2] Below, PCF requests that additional revisions and clarifications be made to the draft resolution to ensure consistency throughout the resolution and compliance with the Commission's statutory requirements. PCF also recommends certain changes to provide additional transparency with respect to the utilities' records and regarding the relationship between WSD and SED.

II. WSD-012 INCORPORATES MUCH OF PCF'S COMMENTS REGARDING THE COMMISSION'S AND WSD'S STATUTORY AUTHORITY, BUT ADDITIONAL MODIFICATIONS SHOULD BE MADE TO ENSURE INTERNAL CONSISTENCY AND STATUTORY ACCURACY.

In PCF's comments on the draft compliance process proposal, PCF provided statutory authority demonstrating that WSD's and the Commission's statutory authority and enforcement capabilities ae more comprehensive than the draft proposal suggested.[3] PCF appreciates that WSD-012 largely incorporates PCF's comments.[4] For example, PCF criticized the draft proposal for suggesting that the imposition of penalties by the Commission for a utilities' failure to comply with its WMP could be considered permissive, while Section 8386.1 in fact mandates that the Commission assess penalties on utilities failing to substantially comply with their respective plans. PCF explained that Section 8386.1's mandate comports with the mandate contained in Section 2101.[5] In response, WSD-012 appropriately deleted the sentence: "The Commission may then [after WSD makes a recommendation] assess penalties, including fines or equitable remedies, if it finds that an electrical corporation has failed to comply with its WMP, consistent with Public Utilities Code § 8386.1."[6]

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[2] Draft Resolution WSD-012, p. 3.
[3] The Protect Our Communities Foundation's Comments on the Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process (October 2, 2020), p. 1-4.
[4] Draft Resolution WSD-012, p. 2-3.
[5] Pub. Util. Code, § 8386.1 ("The commission **shall** assess penalties on an electrical corporation that fails to substantially comply with its plan.") (emphasis added); Pub. Util. Code, § 2101 ("The Commission **shall** see that the provisions of the Constitution and statutes of this State affecting public utilities…are enforced and obeyed and that violations are promptly prosecuted…") (emphasis added).
[6] Draft Proposal, p. 6.

Deleting this sentence recognizes that the Commission, when it agrees with WSD's analysis that a utility has substantially failed to comply with its plan, will be obliged to take action on WSD's recommendation.

However, the Commission's mandatory obligation to take enforcement action is not limited to those times when WSD makes a recommendation. If WSD decides not to make a recommendation for whatever reason, the Commission nevertheless retains an independent statutory obligation to "assess penalties on an electrical corporation that fails to substantially comply with its plan,"[7] and to see "that the provisions of the Constitution and statutes of this State affecting public utilities…are enforced and obeyed and that violations are promptly prosecuted…"[8] Accordingly, PCF recommends one of two changes be made to the draft resolution: either WSD should commit[9] to making recommendations in every instance of substantial noncompliance; or the draft resolution's current language suggesting that the Commission will take action only "following" WSD's recommendation[10] should be deleted.

Moreover, as PCF commented previously, the Commission's obligation to impose penalties for substantial noncompliance with WMPs constitutes merely one of many enforcement mechanisms available to the Commission.[11] To accurately reflect the scope of the Commission's authority, PCF requests that the phrase "or take other action" be inserted after the phrase "…the Commission may issue a citation or pursue an enforcement action" on page 7 of Attachment 1, to read as follows: "Pursuant to the Commission's regulatory and enforcement authority, the Commission or its staff may issue a citation or pursue an enforcement action or take other action for noncompliance…" This addition contemplates that the Commission can effectively incent utility compliance with WMPs without issuing a citation or initiating an enforcement proceeding, such as by imposing consequences in the context of the Commission's evaluation of cost-recovery applications and of requests for safety certificates.[12]

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[7] Pub. Util. Code, § 8386.1.
[8] Pub. Util. Code, § 2101.
[9] Currently, the draft resolution uses equivocal language that "WSD *may* recommend…." *See e.g.* Draft Resolution WSD-012, p. 4 (emphasis added).
[10] Draft Resolution WSD-012, p. 5 ("Following any WSD recommendation…"); Draft Resolution WSD-012, Attachment 1, p. 7 ("Following the WSD's recommendation to the Commission…").
[11] The Protect Our Communities Foundation's Comments on the Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process (October 2, 2020), p. 3-4.
[12] The Protect Our Communities Foundation's Comments on the Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process (October 2, 2020), p. 3-4; Pub. Util. Code, § 8386.4, subd. (b)

III. PCF APPRECIATES THAT WSD-012 INCORPORATES PCF'S COMMENTS THAT TRACKING PSPS OUTCOMES DOES NOT MOST EFFECTIVELY MITIGATE PSPS IMPACTS, AND SUGGESTS FURTHER REVISIONS SO THAT MORE EFFECTIVE ALTERNATIVES TO THE UTILITIES' PROPOSALS MAY BE IMPLEMENTED.

PCF appreciates that WSD-012 incorporated PCF's comment that tracking PSPS outcomes is not the most effective way to mitigate PSPS impacts.[13] In PCF's comments on the draft compliance process proposal, PCF advocated that tracking outcomes fails to best determine effective strategies to mitigate or avoid PSPS events entirely because alternatives to the utilities' proposed activities exist which are more effective at mitigating PSPS events, but those alternatives are not contained within the WMPs.[14]

Draft resolution WSD-012 deletes the sentence in the draft proposal that "The WSD will track outcomes of the reduction of wildfire risks and Public Safety Power Shutoffs (PSPS) events in order to determine the most effective strategy to mitigate areas with the highest risk, and investigate areas not included in WMPs."[15] In its place, the draft resolution explains that an objective for the WSD includes "tracking outcomes of the reduction of wildfire risks and Public Safety Power Shutoff (PSPS) events in order to assess the effectiveness of the risk reduction strategies in electrical corporations' approved WMPs to mitigate areas with the highest risk."[16]

PCF appreciates that WSD-012 does not now erroneously presuppose that the utilities' proposed initiatives constitute the most effective methods to prevent or mitigate the risks of wildfires. PCF continues to urge WSD and the Commission to establish a mechanism for meaningful consideration and implementation of more effective alternatives. While PCF acknowledges the limitations of incorporating such a process in Resolution WSD-012 which relates solely to compliance, PCF recently recommended related revisions to WSD-011 which the Commission could adopt.[17]

(requiring the Commission to consider the costs of WMPs in a utility's GRC or in a comprehensive separate application); Pub. Util. Code, § 451.1, subd. (c) (uniquely requiring other parties to "create[] serious doubt as to the reasonableness" of the utilities' conduct in a lawsuit); Pub. Util. Code, § 3292, subd. (h)(3)(B).

[13] Draft Resolution WSD-012, p. 2-3.

[14] The Protect Our Communities Foundation's Comments on the Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process (October 2, 2020), p. 5.

[15] Draft Proposal, p. 6.

[16] Draft Resolution WSD-012, p. 4.

[17] The Protect Our Communities Foundation Comments on Draft Resolution WSD-011 (November 2, 2020), p. 14.

In the compliance context, WSD and the Commission can enforce the utilities' obligation to consider alternatives in those instances where the Commission has issued an express order to a specific utility,[18] and also in the context of assessing compliance with the Commission's S-MAP and RAMP decisions which require consideration of alternatives and are incorporated into the wildfire mitigation statutes.[19]

PCF also seeks clarification whether the term "reduction of" modifies both "wildfire risks" and "Public Safety Power Shutoff (PSPS) events" in the phrase: "tracking outcomes of the reduction of wildfire risks and Public Safety Power Shutoff (PSPS) events in order to assess the effectiveness of the risk reduction strategies in electrical corporations' approved WMPs to mitigate areas with the highest risk."[20] If not, previous concerns raised by PCF, which the Wildfire Safety Advisory Board (WSAB) shares, would arise: namely, that PSPS events themselves involve risks.[21]

PCF recommends the following or similar bracketed words on page 4 of Attachment 1 be added for clarification purposes: "tracking outcomes of the reduction of wildfire risks and [reduced need for] Public Safety Power Shutoff (PSPS) events in order to assess the effectiveness of the risk reduction strategies in electrical corporations' approved WMPs to mitigate areas with the highest risk."[22] This clarification would track with the draft resolution's stated goal to "reduce wildfire risk and further minimize PSPS events,"[23] which PCF of course supports.

[18] For example, D.19-05-039 required SDG&E to consider "renewables potentially coupled with storage" for backup generation; and prohibited SDG&E from proceeding with fossil-fueled backup generation without first making a showing that its generators will "not create additional significant risk for fire threat." D.19-05-039, p. 12.

[19] D.18-12-014, p. 34 (D.14-12-025 required the utilities to present risk mitigation alternatives and D.18-12-014 required that the alternatives be evaluated using the MAVF and calculation of a RSE for each mitigation alternative); Pub. Util. Code, § 8386, subd. (c)(11), (12).

[20] Draft Resolution WSD-012, p. 4.

[21] Wildfire Safety Advisory Board Recommendations on the 2021 Wildfire Mitigation Plan Guidelines, Performance Metrics, and Safety Culture (June 26, 2020), p. 20 ("The use of PSPS may reduce the risk of wildfire but it also creates risk. The use of PSPS may increase the risk of other types of fires including fires caused by temporary generation or other fuel and light sources. Therefore, PSPS should be treated as a risk for purposes of the RSE calculation.").

[22] Draft Resolution WSD-012, p. 4.

[23] Draft Resolution WSD-012, p. 8.

IV. REQUIRING THE UTILITIES TO ENFORCE DEFECTIVE WMPS WOULD BE INCONSISTENT WITH THE WILDFIRE MITIGATION STATUTES.

In PCF's comments on the draft compliance process proposal, PCF recommended that the draft be revised to account for enforcement of the utilities' present-day violations. PCF appreciates that draft resolution WSD-012 intended to incorporate PCF's and other comments that strictly enforcing compliance with defective WMPs could lead to undesirable results.[24]

Although the draft resolution has been revised to better reflect WSD's role of enforcing the utilities' "compliance with wildfire safety,"[25] the draft resolution defines compliance "as the successful implementation of the electrical corporation's previously stated narratives, actions, targets, outcome metrics and objectives in the approved WMPs, including supporting documentation."[26] In the context of the 2020 WMPs, implementation of certain aspects of the utilities' WMPs would in fact contravene the Commission's intent in WSD-002 and the utility-specific decisions which determined the utilities 2020 WMPs contain substantial defects.[27]

As PCF commented previously, WSD and the Commission should not feel constrained by the Commission's "approval" of a WMP, because such approval is no defense to an enforcement action "for a violation of a commission decision, order, or rule."[28] PCF urges WSD to focus on ensuring compliance with minimizing the risk of wildfire by focusing on the statutory requirements and the Commission's specific findings rather than on the utilities' deficient 2020 WMPs.

Specifically, PCF recommends that "assessing electrical corporations' implementation of the initiatives identified in their approved WMPs"[29] should not be WSD's objective, but rather that WSD should assess the utilities' implementation of the initiatives *required by law and by the Commission's decisions, resolutions, orders, or rules*. In some instances, compliance with cost-effective wildfire safety as set forth in the Commission's resolutions will require the utilities to avoid implementing certain initiatives.[30]

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[24] Draft Resolution WSD-012, p. 3.
[25] Draft Resolution WSD-012, p. 2; Pub. Util. Code, § 326, subd. (a)(1).
[26] Draft Resolution WSD-012, p. 4.
[27] Resolution WSD-002 et seq.
[28] Pub. Util. Code, § 8386.1 ("The Wildfire Safety Division's approval of a plan does not establish a defense to any enforcement action for a violation of a commission decision, order, or rule.").
[29] Draft Resolution WSD-012, p. 4.
[30] Examples include SDG&E's enhanced vegetation practices and SDG&E's fossil-fueled whole-house backup generation, because SDG&E has failed to make the showings required by D.19-05-039.

For example, D.19-05-039 prohibits SDG&E from proceeding with vegetation management practices unsupported by scientific evidence or other data,[31] which SDG&E has admitted to violating.[32]

Additionally, PCF notes that the draft resolution adds to the draft proposal the statement that "WSD will work with the electrical corporations to minimize and/or resolve wildfire safety issues and noncompliance with WMP initiatives."[33] PCF requests clarification as to the meaning of this addition and more detail as to how WSD intends to work with the utilities. WSD should not assume the utilities will resolve all issues by working with WSD and thus should plan ahead for the possibility of continued noncompliance. Changing the objective from "assessing electrical corporations' implementation of the initiatives identified in their approved WMPs"[34] to "assessing electrical corporations' implementation of *initiatives in the manner required by law and by the Commission's decisions, resolutions, orders, or rules*" would better position WSD in doing so.

V. PCF'S COMMENTS ON THE INDEPENDENT EVALUATOR LISTING CRITERIA SHOULD BE TAKEN INTO ACCOUNT BEFORE HIRING AND RELYING UPON ANY FINDINGS BY INDEPENDENT EVALUTORS.

The draft resolution includes various references to use of information derived from the independent evaluators.[35] PCF requests that the Commission clarify whether PCF's comments on the independent evaluator listing criteria have been taken into account.[36]

[31] D.19-05-039, p. 29-30 (OP 5); Comments of the Public Advocates Office on the September 2020 Quarterly Reports on 2020 Wildfire Mitigation Plans (September 30, 2020), p. 11; *accord* The Protect Our Communities Foundation's Comments on Draft Resolutions WSD-002 through WSD-008 (May 27, 2020), p. 15, 19-20; The Protect Our Communities Foundation Comments on the 2020 Wildfire Mitigation Plans Pursuant to Resolution WSD-001 (April 7, 2020), p. 22-27; The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020), p. 10-11; The Protect Our Communities Foundation's Comments on Wildfire Safety Advisory Board's Draft Recommendations on the 2021 WMP Guidelines, Performance Metrics, and Safety Culture (June 15, 2020), p. 15-17.

[32] The Protect Our Communities Foundation's Comments on San Diego Gas & Electric Company's Remedial Compliance Plan (August 10, 2020), p. 11-14.

[33] Draft Resolution WSD-012, p. 3.

[34] Draft Resolution WSD-012, p. 4.

[35] Draft Resolution WSD-012, p. 6-7.

[36] *See* The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020).

For example, have revisions been made to preserve the independence of independent evaluators?[37] Have revisions been made to comply with Section 83863(c)(2)[38] and with Section 8386(c)(5)?[39] Do safeguards exist to ensure the independent evaluators are not auditing compliance with WMP initiatives expressly determined to violate Commission orders?[40]

Requests for qualifications appear to have gone out on October 21, 2020, but the details do not appear to be publicly accessible.[41] If PCF's comments have not been substantially incorporated into the requests for qualifications, then reliance on conclusions of independent evaluators is more likely to mislead than to improve wildfire safety. PCF requests clarification regarding the contents of the requests for qualification and reserves comment on all related issues.

VI. PCF RECOMMENDS INCREASED TRANSPARENCY REGARDING THE AGREEMENT BETWEEN SED AND WSD; AND, AS RECOMMENDED BY THE WSAB, WITH RESPECT TO THE UTILITIES' RECORDS.

PCF continues to request that the internal agreements between WSD and SED referred to in the draft proposal[42] be made public, even though draft resolution WSD-012 no longer references those existing internal agreements. One question PCF continues to have is whether the agreement identifies who will be enforcing CEQA with respect to the non-exempt activities that the utilities propose in their WMPs.

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[37] The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020), p. 7.
[38] The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020), p. 3-4.
[39] The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020), p. 4-5.
[40] The Protect Our Communities Foundation's Comments on Proposed Independent Evaluator Listing Criteria (June 10, 2020), p. 10-11.
[41] https://www.cpuc.ca.gov/wsd/ielist/
[42] Wildfire Safety Division Draft Wildfire Mitigation Plan Compliance Process (September 18, 2020), p. 5 ("Through internal agreements and a division of responsibilities between the WSD and the Commission's Safety and Enforcement Division (SED), a process has been outlined to determine consequences. Several factors are assessed to determine whether the WSD should directly issue a Notice of Defect to an electrical corporation, or if SED enforcement action is needed…The WSD proposes to coordinate its efforts with the SED to achieve timely correction of defects identified in Notices of Defects during the WSD's compliance assessments.[] The WSD may also escalate the defect to a Notice of Noncompliance to order correction from the utility. Upon an electrical corporation's failure to timely correct an alleged defect, the WSD may inform SED of noncompliance instance and SED may investigate the noncompliance. Following the WSD's recommendation to the Commission, and pursuant to the Commission's enforcement authority, the Commission via SED may issue a citation or other enforcement action if an electrical corporation does not correct the identified defects on the prescribed timelines…").

Additionally, although the draft resolution claims to have adopted "the WSAB recommendation in section 5.4 through the establishment of routine coordination between WSD and the CPUC's Safety Enforcement Division (SED) on the resolution of compliance issues,"[43] draft resolution WSD-011 claims WSAB's recommendation should be rejected.[44] PCF recommends that draft resolution WSD-012 be revised to address the inconsistency between it and draft resolution WSD-011.

PCF's review of WSAB's recommendation in section 5.4 reveals that the recommendation calls for more robust changes than described in draft resolution WSD-012. The WSAB recommended that WSD and SED work together "to assess the effectiveness of the utilities' processes and post-accident evaluation, including whether the learnings from the evaluation are incorporated into future wildfire mitigation planning."[45] The WSAB provided specific examples of incident reporting systems, and recommended that the utilities "provide access to accident data for third party review, looking back ten, five, one year ago, and current practices," explaining that such "open access to information will help to diagnose and develop a utility safety culture."[46] The WSAB further recommended that the "CPUC should assess whether the utilities have adequate incident reporting systems that disseminate reports about accidents and near misses," and that the "utilities must promote compliance among the entire workforce and evaluate and measure compliance across utilities to reduce accidents."[47] WSAB includes as a potential data reporting requirement creation of "checklists to determine if the utility took required actions," and that "[p]ost-incident reports should be uploaded into a database and shared among utility safety professionals."[48]

PCF supports the WSAB's recommendations, and submits that greater transparency within both the government and the utilities will help WSD achieve its wildfire mitigation safety compliance goals rather than limit WSD's operational flexibility.

[43] Draft Resolution WSD-012, p. 5.
[44] Draft Resolution WSD-011, Attachment 1, p. 17.
[45] Wildfire Safety Advisory Board Recommendations on the 2021 Wildfire Mitigation Plan Guidelines, Performance Metrics, and Safety Culture (June 26, 2020), p. 43.
[46] *Id.* at p. 43-44.
[47] *Id.* at p. 44.
[48] *Ibid.*

VII. CONCLUSION

PCF appreciates that the draft resolution incorporated many of PCF's recommendations and the opportunity to provide its additional suggestions and comments detailed above.

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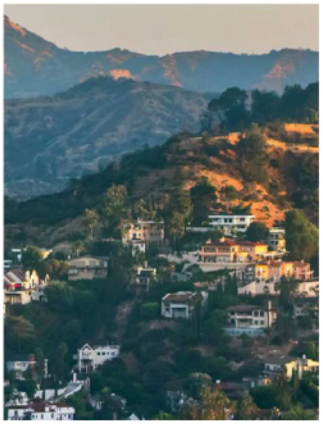
Attorney for The Protect Our Communities Foundation

November 3, 2020

Attachment 12:

December 23, 2020 Draft Utility Wildfire Mitigation Strategy and Roadmap for the WSD

DRAFT



REDUCING UTILITY-RELATED WILDFIRE RISK

Utility Wildfire Mitigation Strategy and Roadmap for the Wildfire Safety Division

~~May~~December 2020

BCG

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Preface

In 2019, the California Public Utilities Commission (CPUC) initiated a project to create a vision, strategy, and roadmap to outline its efforts to systematically reduce the risk of ignition of wildfires from utility infrastructure. The CPUC recognizes that wildfire threat is only increasing – globally and in California – with utility-related ignitions responsible for a disproportionate share of wildfire-related consequences. The newly-established Wildfire Safety Division (WSD) within the CPUC will play a particularly critical role in addressing this growing wildfire risk as it pushes forward its efforts. In 2021, the WSD will transition to the California Natural Resources Agency (CNRA), per AB 1054 and AB 111, where the WSD mission will continue as the Office of Energy Infrastructure Safety (OEIS).

To direct their efforts, the WSD is seeking to define longer-term objectives that can support the WSD, the utilities whose Wildfire Mitigation Plans (WMPs) the WSD is charged with reviewing and approving or denying, and other relevant stakeholders in working toward both near-term and longer-term solutions. More broadly, this effort recognizes opportunities to learn from global practices and other industry examples, while supporting California's ability to continue defining new paradigms and standards for addressing utility-related wildfire risk.

For this project, the WSD partnered with the Boston Consulting Group (BCG) to draw on learning from utility-related wildfire management in California, other states, and globally from other wildfire-prone countries. The WSD, the CPUC, and BCG also worked with a number of other state agency stakeholders (e.g., California Department of Forestry and Fire Protection (CAL FIRE), California Governor's Office of Emergency Services (Cal OES), and entities within the California Natural Resources Agency such as the Forest Management Task Force) to develop its strategy, recognizing that the ultimate effectiveness of utility-related wildfire efforts requires the WSD and utilities to closely and thoughtfully coordinate with a broader set of activities both within and outside of the CPUC.

Section 1, lays out the context for defining the WSD's vision, strategy, and roadmap. Section 2 proposes a strategic approach for the WSD over the next ten years. Section 3 lays out priority actions the WSD has developed and is pursuing to achieve its objectives in the near-term and longer-term. Section 4 further defines critical areas where the WSD and utilities should continue to collaborate with the broader set of California stakeholders to support utility-related wildfire mitigation efforts.

Over time, this vision, strategy, and roadmap – and related activities – will evolve as the WSD and utilities continue to learn from their experiences, and from others.

Executive Summary

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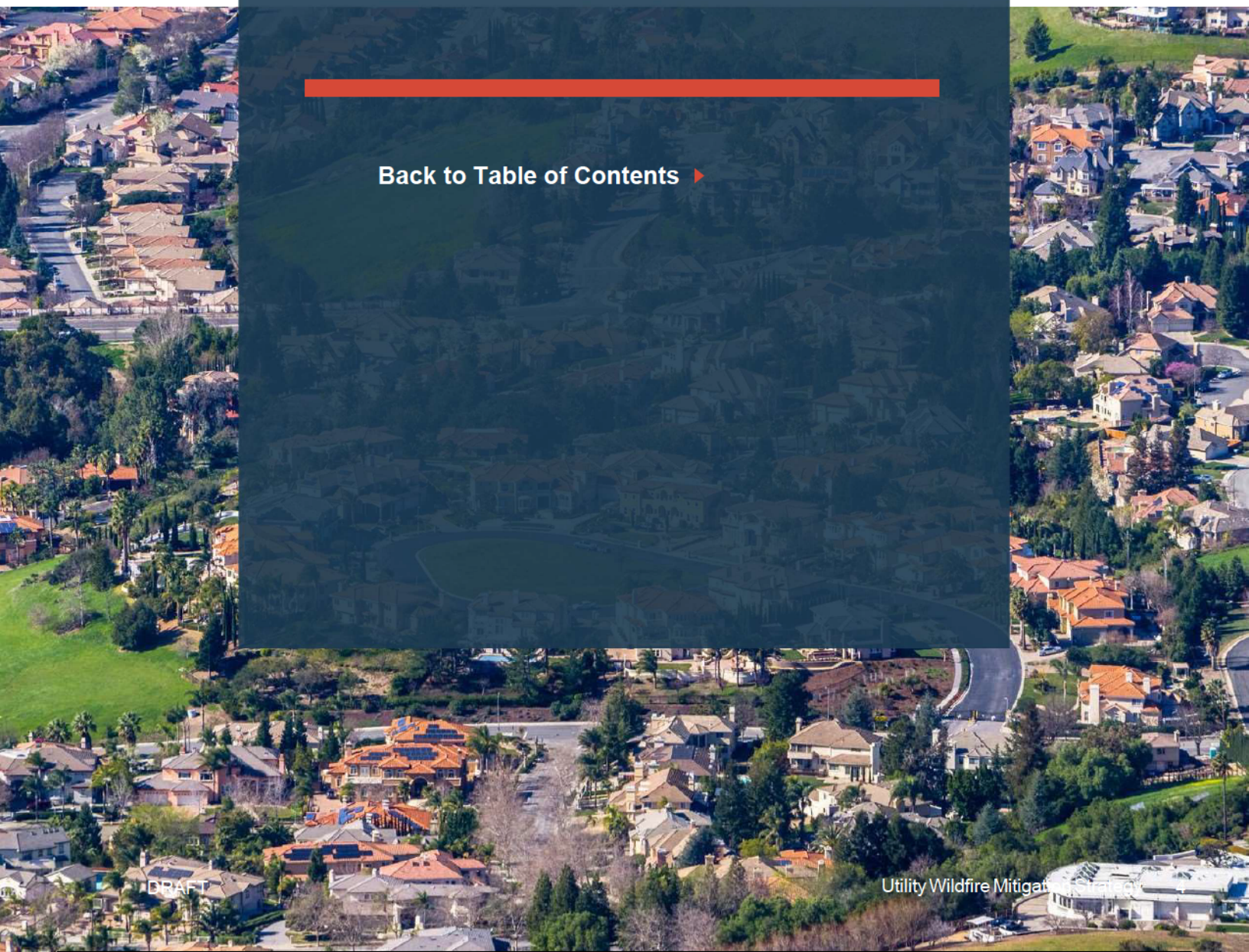
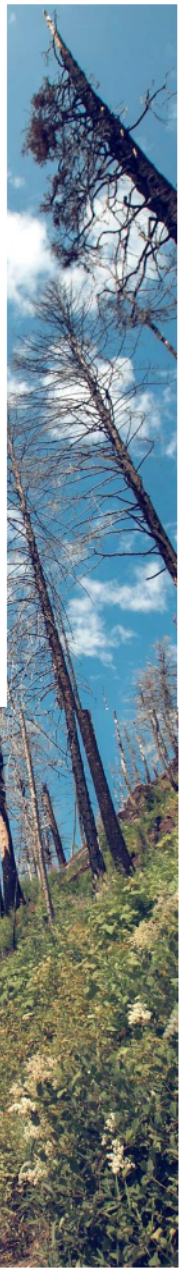
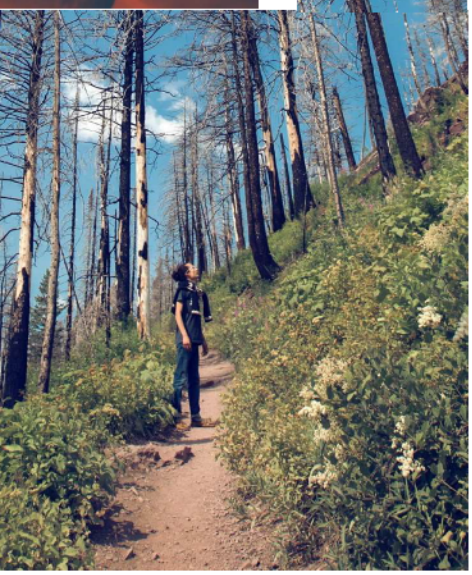






Executive Summary

Wildfires have caused significant social, economic, and environmental damage on a global scale. In California, electric utilities are responsible for some of the most devastating wildfires in recent years.[1] As the evaluator and approver of utilities' Wildfire Mitigation Plans, the newly established Wildfire Safety Division must ensure utility wildfire mitigation efforts sufficiently address increasing utility wildfire risk.

The effects of wildfires are becoming more intense: in many fire-prone areas, wildfire seasons are growing longer and average wildfire sizes are increasing.[2] At the same time, wildfires are occurring in areas that have not faced significant risk in the past.[3] In the United States alone, over 775,000 homes are at 'extreme' risk of wildfire, with the value of those homes equivalent to over $200 billion.[4] Firefighting costs are also rising, along with spending on prevention and mitigation efforts.[5]

California is one of the areas most threatened by large-scale, high-intensity wildfires. In the past thirty years, the state has witnessed larger, more frequent wildfires than in the earlier 20th century.[6] Events in 2017, ~~and~~ 2018, and 2020 were especially extreme: California surpassed modern records for fatalities, property damage, area burned, and largest single wildfire by acreage.

Utility-related wildfires disproportionately contribute to California's wildfire crisis, where ignitions related to utility infrastructure led to wildfires that caused 109 fatalities in 2017-2018.[7] California's largest electric utility, Pacific Gas and Electric (PG&E), filed for Chapter 11 bankruptcy protection amidst $30 billion in potential liabilities

[1] CAL FIRE. *CAL FIRE Investigators Determine Causes of 12 Wildfires in Mendocino, Humboldt, Butte, Sonoma, Lake, and Napa Counties*. June 8, 2018. https://www.fire.ca.gov/media/5100/2017_wildfiresiege_cause.pdf; CAL FIRE. *Investigation Report: Nuns Fire*. October 8, 2017; CAL FIRE. *Investigation Report: Atlas Fire*. October 8, ~~2017~~__; California Public Utilities Commission. *Appendix A: SED Incident Investigation Report for 2018 Camp Fire with Attachments*. November 8, 2019. https://www.cpuc.ca.gov/CPUCNewsDetail. aspx?id=6442454974#November2018.

[2] Jolly, W.M., et al. *Climate-induced variations in global wildfire danger from 1979 to 2013*, Nat. Commun. 6: 7537, 2015. https://doi.org/10.1038/ncomms8537.

[3] Artés, T., Oom, D., Rigo, D., et al. *A global wildfire dataset for the analysis of fire regimes and fire behaviour*. Sci Data 6, 296, 2019. https://doi.org/10.1038/s41597-019-0312-2.

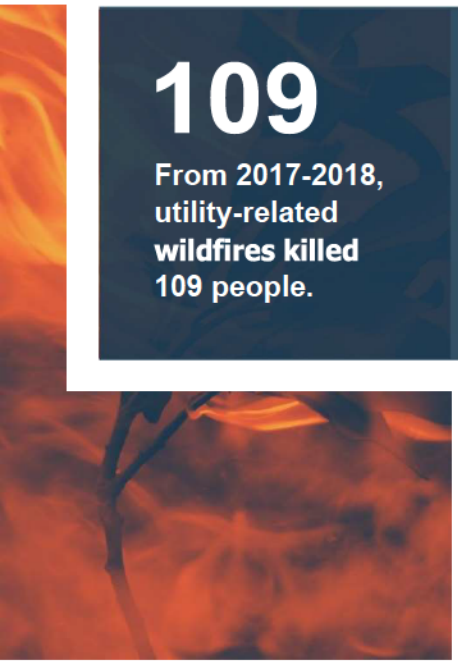
[4] Calgiano, F., et al. *2019 Wildfire Risk Report*. CoreLogic, September 2019. https://storymaps.arcgis.com/stories/cb987be2818a4013a66977b6b3900444.

[5] Cave, Damien. "The world burns all year: are there enough planes to douse the flames?" *New York Times*, November 21, 2019. https://www.nytimes.com/2019/11/21/world/australia/fires-water-tankers-climate-change.html.

[6] Bedford, L., et al. *Statewide Summary Report*. California's Fourth Climate Change Assessment, July 2019.

[7] California Department of Forestry and Fire Protection (CAL FIRE). *Wildfire Activity Statistics*. 2018.

from wildfires in 2017 and 2018.[8] Although 2019 saw fewer devastating wildfires, millions were impacted by Public Safety Power Shutoff (PSPS) events executed by utilities to prevent their assets from igniting fires.[9] By October, 2020 saw the highest acreage burned on record, with over 4,000,000 acres burned, including the largest *single* fire (the Creek Fire) and the largest fire (the August Complex Fire) in California history.[1] Utility infrastructure is aging and is not being modernized quickly enough to address changing conditions. Significant investment in existing maintenance, new technologies, and grid redesign is needed to address longer-term risks. Utilities, the California Public Utilities Commission (CPUC), and the Wildfire Safety Division (WSD)[2] are all focused on these issues.



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From 2017-2018, utility-related wildfires killed 109 people.

Rising wildfire risk has been driven by a complex set of factors tied to climate change, land planning and management, and demographic trends. Climate change has a significant impact on wildfire risk as increasing temperatures and erratic precipitation decreases vegetation and soil moisture content and snowpack levels, while extending droughts and summer fire seasons. Shifting weather patterns also impact extreme wind events, which can quickly dry vegetation to create fuel and propagate large fires.[10,11] Twentieth-century land management practices, especially policies of fire suppression, have led to significant fuel accumulation in forests, which can result in hotter and faster burning fires throughout the state. A growing population living in the wildland-urban interface (WUI)[12] means that more communities are exposed to wildfire risk, and also that more electrical infrastructure is being built in wildfire-prone areas. This occurs as electric utilities are required to provide service in high fire threat areas, where downed power lines may come into contact with dry forest fuel, or foreign objects, such as trees, may come into contact with energized wires, potentially generating sparks that can ignite wildfires.

Although wildfires related to utility infrastructure are a global issue, there is not yet a definitive standard or template to guide utilities in California on how to manage the growing risk. While the WSD and electric utilities have looked at initiatives and technology innovations in other wildfire-prone geographies, in research communities,[13] and in other industries or sectors, no one has developed a comprehensive solution.

As an important first step in 2018 and 2019, the California legislature adopted a set of legislation focused on utility wildfire safety, specifically passing Senate Bill 901 (Dodd, 2018), Assembly Bill 1054 (Holden, 2019), and AB 111 (Committee on Budget, 2019), which established requirements for utilities to submit Wildfire Mitigation Plans (WMPs), among other things. These plans, and the related legislation, were established to improve utility wildfire safety by requiring utilities to clearly describe their initiatives aimed at mitigating wildfire ignition risk from their own infrastructure.[14] This is one example in how California is setting the global standard for utility wildfire mitigation.

[8] Wichter, Zach. "California's Largest Utility Says It Is Bankrupt. Here's What You Need To Know," *New York Times*, January 29, 2019. https://www.nytimes.com/2019/01/29/business/pge-bankruptcy.html.

[1] CalFire, "Current Year Statistics," https://www.fire.ca.gov/stats-events/. Last accessed October 16, 2020.

[2] The WSD will transition into the OEIS by July 1, 2021 and all duties and responsibilities will transfer with it.

[9] Batjer, Marybel. *Letter to Telecos for Information and Hearing.* CPUC, November 13, 2019. https://www.cpuc.ca.gov/deenergization/
[10] Williams, A. P., Abatzoglou, J. T., et al. *Observed impacts of anthropogenic climate change on wildfire in California*. Earth's Future, 7, 92– 910, (2019). https://doi.org/10.1029/2019EF001210.
[11] Although extreme offshore winds like the Santa Ana winds are projected to decrease in intensity and frequency, continued warming and delayed onset of precipitation is predicted to offset this decrease.
[12] University of Wisconsin-Madison Silvis Lab. "Wildland-Urban Interface Change 1990-2010." 2019.
[13] CPUC. "Wildfire Technology Innovation Summit." March 2019.
[14] Under recent legislation (AB 1028, SB 901, AB 1054, AB 111), and with guidance from the CPUC, utilities (specifically 'electric corporations') are now required to prepare a Wildfire Mitigation Plan.

With a primary mandate to ensure electric utilities are taking effective actions to reduce utility-related wildfire risk, the WSD must ensure utility wildfire mitigation initiatives balance near-term activities that make each wildfire season less harmful to the public, with activities focused on long-term, systematic risk reduction. To help achieve this equilibrium, four principles guide the proposed utility wildfire mitigation strategy for the WSD:

- **Effective collaboration:** Coordinating an integrated utility wildfire mitigation approach that breaks down silos and engages stakeholders in strategic decision-making and operations
- **Local perspective:** Developing a flexible, localized utility wildfire mitigation approach that takes into account differences in wildfire risk exposure in communities
- **Long-term resilience:** Creating a utility wildfire mitigation vision that extends the planning horizon to focus on longer-term resilience and adaptation
- **Risk-informed, data-supported decisions:** Using data effectively to understand and plan for risk, and set up stakeholders to act in a way commensurate to reducing risk

To work towards these four principles in the context of utility-related wildfires, a clear vision is proposed for the WSD in Section 2 of this report: ***A sustainable California, with no catastrophic utility-related wildfires, that has access to safe, affordable, and reliable electricity.***

In an effort to take action today towards this proposed vision, the WSD has begun pursuing four priority actions, outlined in Section 3 of this report. These four priority actions are:

1. **Utility wildfire mitigation plans:** Revised WMP process, including focus on understanding risk and program effectiveness to drive continued improvement and rigor over time
2. **Utility metric reporting:** Metrics to track and assess utility progress and performance against outcomes over time, ensuring continuous learning and adaptation
3. **Detailed risk assessment:** Modeling and analysis of wildfire risk from utility assets to communities and natural resources to support resource allocation
4. **Data and analytics strategy:** Strategy to enable information sharing across stakeholders to support processes such as the WMP evaluation in the near-term, and drive analytics in the longer-term that will support prevention, response, and recovery activities

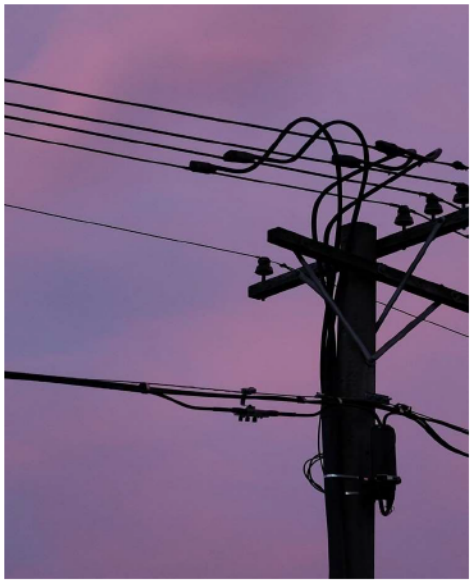
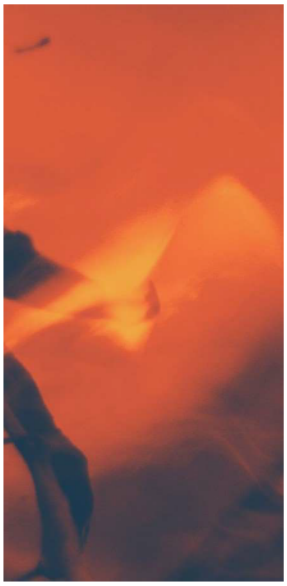
While these four actions are a critical first step, this report also highlights certain areas where the WSD, and utilities, need to work collaboratively with other agencies, such as the California Department of Forestry and Fire Protection (CAL FIRE) and the California Governor's Office of Emergency Services (Cal OES), and with local communities to

successfully achieve the proposed vision.[3] These proposed areas of collaboration, detailed in Section 4, center around the processes, tools, and capabilities necessary to support the mitigation efforts of the utilities in the long-term:

- **Governance and coordination:** Ensure utilities utilize planning and coordination mechanisms, incentives, and accountability measures to direct multi-stakeholder efforts and engage local communities
- **Culture and behavior:** Develop a safety and risk management culture within utilities that is not focused solely on compliance, but proactively drives towards the vision for utility wildfire mitigation
- **Applied science, technology, and data:** Leverage advancements in science, technology, and data and analytics to support more informed decision-making and create a shared understanding of utility-related wildfire risk
- **Workforce development:** Support the cultivation of a skilled, capable workforce at every level – from top leaders to those that are working on utility wildfire mitigation activities (e.g., foresters, electric linemen)

Changes to legislation and regulation governing utility wildfire mitigation, as well as funding available for prevention and mitigation initiatives, will also guide the WSD's efforts and their direction to the utilities.

While utilities are already undertaking wildfire mitigation activities and building capabilities subject to CPUC regulation, they must continue to make progress. Utility activities need to incorporate longer-term thinking and take a more robust strategic approach focused on the most impactful actions – all with a local lens. Given the complexity of the issues, the strategy outlined in this report is a proposal to build on existing work, and is intended to be a living document to be updated as the WSD and utilities learn more and refine their efforts.

[3] The WSD will transition into the OEIS by July 1, 2021 and all duties and responsibilities will transfer with it.

1

Background

1 **Background**

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1

Background

Utility-related wildfire risk poses a growing challenge in California today.

In the Western U.S., hotter and drier weather is connected to higher tree mortality and lower vegetation moisture, creating conditions prone to severe wildfires.[15] Fire risk indicators, such as the Canadian Fire Weather Index, are registering the highest warning signs seen in the last 30 years. Canada, Spain, Portugal, Greece, and Chile have all seen deadly wildfires, causing billions of dollars in damages. In 2018, the year of the Camp Fire (California's most deadly fire), British Columbia also faced devastating losses as fires burned over three and a half million acres.[16] In 2019 and early 2020, wildfires burned over two million acres in the Brazilian Amazon,[17] and over 25 million acres in Australia.[18]

1~~0~~5/20

most destructive wildfires in California occurred in the past 10 years

~~5~~6/20

deadliest wildfires in California occurred in 2017, ~~and~~ 2018, and 2020

High-severity fires have hit California particularly hard in the past decade. ~~Ten~~ Fifteen of the twenty most destructive wildfires in the state's history have occurred in the past ten years; ~~five~~ six of the twenty deadliest wildfires occurred in 2017, ~~and~~ 2018, and 2020.[19] In late October 2019, several blazes precipitated the evacuation of more than 200,000 people, leading Governor Gavin Newsom to declare a state of emergency.[20] 2020 saw the highest acreage burned on record, the largest *single* fire, and the largest fire in California history.

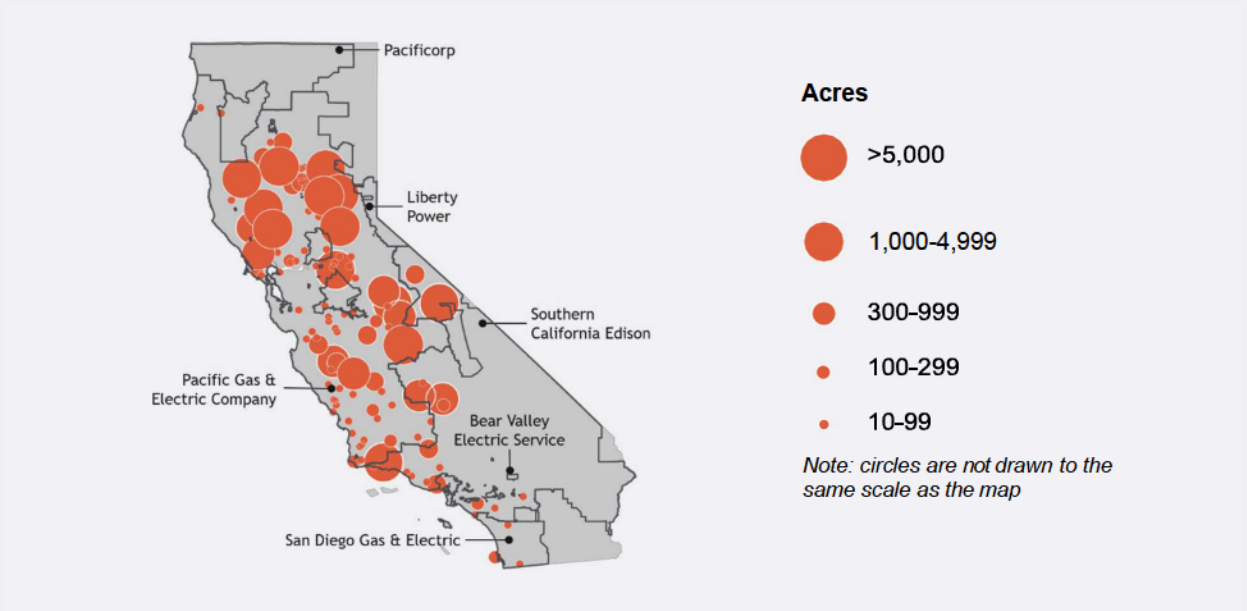
Wildfire ignitions related to utility infrastructure disproportionately contribute to California's crisis. From 2014-2017, electrical power caused only 9% of wildfire ignitions but accounted for 42% of acreage burned on land where the state is responsible for fire management.[21] Of the 20 most deadly fires in the state's history, 35% of fatalities can be traced to utility-related wildfires.[22] As seen

[15] Williams A. Park, et al. *Temperature as a potent driver of regional forest drought stress and tree mortality*. Nat. Clim. Change, 3: 292, 2013. https://doi.org/10.1038/nclimate1693.
[16] Marsh and McLennan Companies. *The Burning Issue: Managing Wildfire Risk*. 2019. https://www.mmc.com/content/dam/mmcweb/insights/publications/2019/oct/THE%20BURNING%20ISSUE%20-%20MANAGING%20WILDFIRE%20RISK_screen_final.pdf.
[17] CBS News. "Brazil's Bolsonaro says he will accept aid to fight Amazon fires." August 27, 2019. https://www.cbsnews.com/news/amazon-wildfires-brazil-spurns-20-million-aid-offer-from-g-7-nations-today-2019-08-27/.
[18] Reuters. "Australian Authorities Warn Bushfire Reprieve Will Be Over Soon." The New York Times. https://www.nytimes.com/reuters/2020/01/07/world/europe/07reuters-australia-bushfires.html
[19] CAL FIRE. "Top 20 Largest California Wildfires," "Top 20 Most Destructive California Wildfires," "Top 20 Deadliest California Wildfires." https://www.fire.ca.gov/stats-events/.
[20] Hepler, Lauren, and Nicholas Bogel-Burroughs. "Half a Million May Lose Power in Another Round of California Blackouts." *New York Times*, October 27, 2019. https://www.nytimes.com/2019/10/27/us/kincade-fire-california.html.
[21] State Responsibility Areas (SRA) are land where CAL FIRE has a legal responsibility to provide fire protection. It excludes lands classified as Federal Responsibility Areas (FRA) and Local Responsibility Areas (LRA). California has 31 million acres of SRA, approximately one third of land in California. This includes where CAL FIRE directly protects the SRA and contract counties where CAL

FIRE provides funding for county fire protection agencies to provide an initial response on SRA land in that county.
[22] Based on CAL FIRE data, excluding private electrical connections such as the 2017 Tubbs fire which was caused by a private connection.

in Figure 1, fires reported by investor-owned utilities (IOUs)[23] have occurred across the state. Wildfires triggered by utilities have also impacted regions in other countries including Australia, Brazil, Canada, Portugal, and Spain, as well as other regions in the United States (as detailed further in Appendix 1: Global Strategies for Utility Wildfire Mitigation).

Figure 1: Wildfires ignited from electric utility infrastructure in California over 10 acres (2014-2018)



Note: Includes 1) self-reported IOU ignition data for PG&E, SDG&E and SCE (CPUC Fire Incidents Data 2014-2017) and 2) CAL FIRE data for fires over 1,000 acres with electrical power as cause of fire (CAL FIRE, 2014-2017 Wildfire Activity Statistics, (April 2019))

Sources: CPUC Fire Incidents Data 2014-2018, (2018); CAL FIRE, 2014-2017 Wildfire Activity Statistics, (April 2019)

1.1 Drivers of Utility Wildfire Risk

~~We~~WSD defines wildfire risk as both the probability of wildfire ignition and the expected severity of the ignited wildfire measured by the impact on public safety, property, and natural resources.

This risk is driven by the complex interaction of several factors:

- Climate change
- Fire management and suppression
- Wildland-urban interface population
- Utility infrastructure
- Extreme weather events

Fire has always been a natural and critical component of California's forest landscapes, yet the recent high intensity fires in California today are more harmful to the environment. Additionally, the risk of wildfire increases even further when a utility's downed power lines, faulty transformers, unmitigated object contact and other infrastructure problems interact with the four factors above.

[23] The CPUC regulates investor-owned utilities, which are private electricity providers. Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Edison are the three largest within California. Three additional small and multi-jurisdictional utilities (SMJUs) are also IOUs under the jurisdiction of the CPUC.

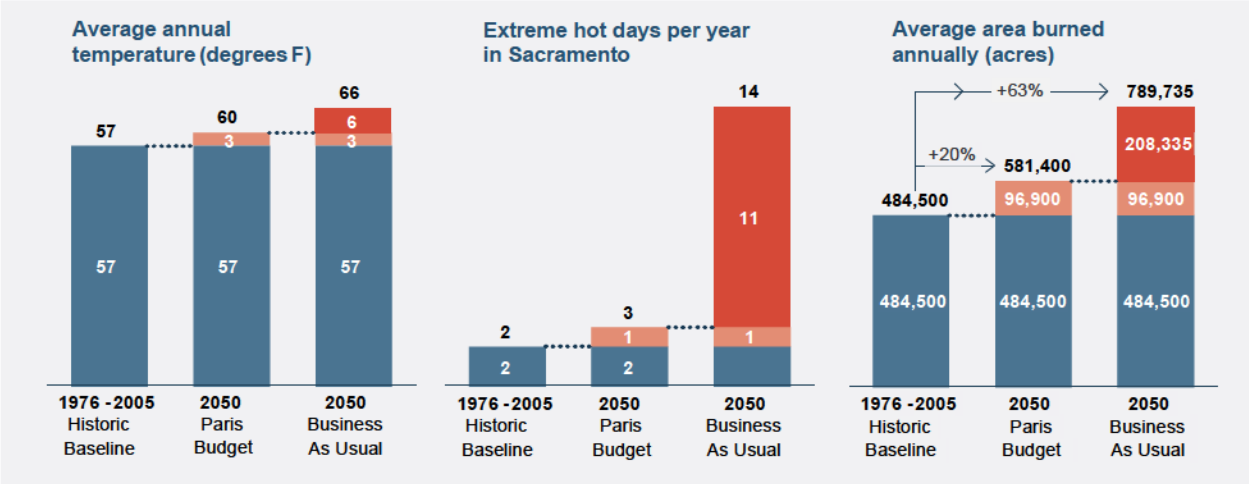
Climate Change

Climate change is impacting fire behavior drivers in numerous ways. Higher temperatures and more erratic precipitation result in drier soil and reduced snowpack, creating more frequent drought conditions that are prone to major fires. Limited moisture also weakens tree defenses against invasive species such as bark beetles, resulting in increased tree mortality and a buildup of combustible vegetation.[24] Together, these trends can lead to the conversion of forest to scrubland, which is an even more combustible type of fuel. This threat is underlined by the death of an estimated 147 million trees in California from 2010-2018, a ten-fold increase from similar periods in the 1970s.[25]

Although researchers have drawn different conclusions about the effect of climate change on wind regimes, extreme wind events such as the Santa Ana and Diablo winds have created the most devastating wildfires in California.[4] Extreme wind events ~~also~~ can impact ~~how severe a fire may be~~ the severity of a fire and how quickly it might spread. In fact, 2019 extreme wind events in Southern California were the strongest since 2007, causing the National Weather Service to issue an "extreme" red flag warning, a term that had never been used before.[26] California will continue to experience drier, longer fire seasons with extreme winds.

The projected impacts of climate change in California are significant. As demonstrated in state-funded research and published in the Fourth California Climate Assessment, under a business-as-usual case, the total area burned will grow by 63% over the 1976-2005 average by 2050, as shown in Figure 2 below. Through meeting the targets of the Paris Climate Accord, experts expect
the number would only grow by 20%. Nevertheless, the greater size, scope, and frequency of wildfires will only increase the already substantial risk to life and property across California.

Figure 2: Projected impacts of climate change in California under different scenarios



Note: Business as usual case represented by RCP 8.5 scenario, historic baseline from 1976-2005 average.

Source: California's Fourth Climate Change Assessment, Statewide Summary Report, (July 2019)

Northern California will see a particular increase in average annual area burned, as indicated by the darker red in Figure 3 below. In the northern part of the state, more than half of PG&E's

[4] *Statewide Summary Report*, California's Fourth Climate Change Assessment, July 2019. https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

70,000-square mile service territory is located in areas defined by the CPUC Fire-Threat Map as facing extreme or elevated risk today (located in a High Fire Threat District – or HFTD),[27]

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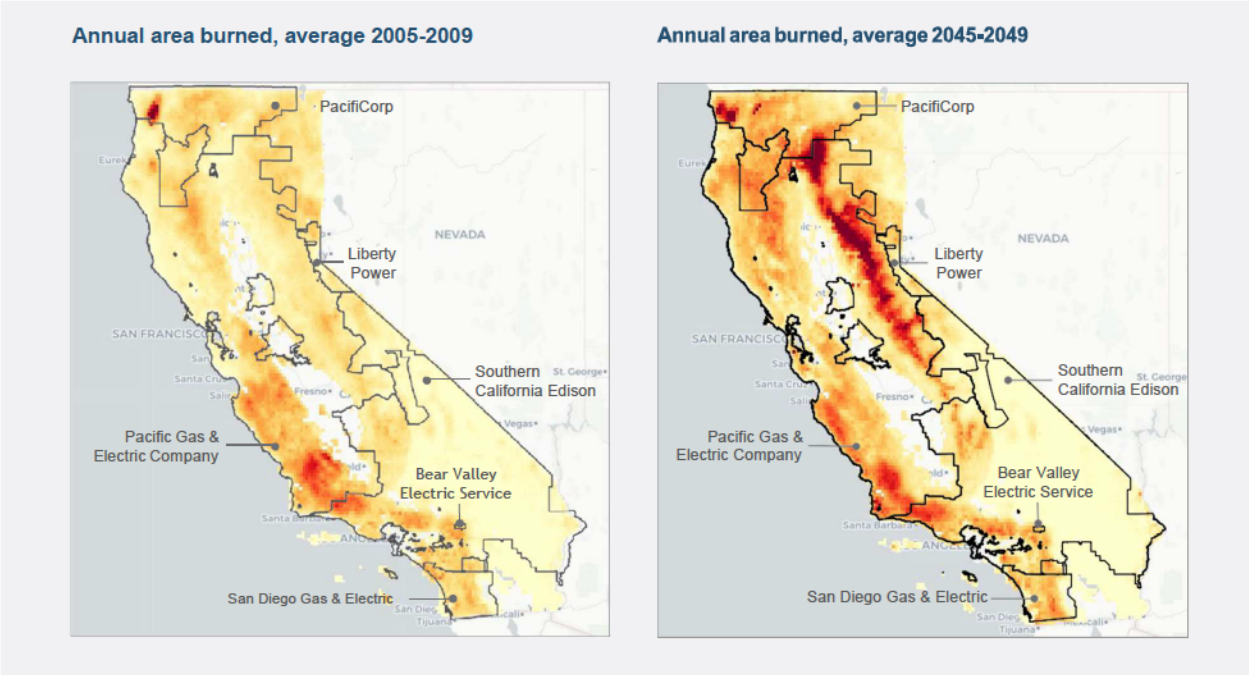
[24] CNRA, Cal EPA, CAL FIRE. *California Forest Carbon Plan*. May 2018. http://resources.ca.gov/wp-content/uploads/2018/05/California-Forest-Carbon-Plan-Final-Draft-for-Public-Release-May-2018.pdf.
[25] USDA Forest Service. *2018 Tree Mortality Aerial Detection Survey Results.* February 11, 2019.
[26] Sutton, Joe, Hanna, Jason, and Silverman, Hollie. "Fire conditions near LA prompt the National Weather Service to issue its first-ever extreme red flag warning." *CNN*, October 29, 2019. https://www.cnn.com/2019/10/29/us/california-fires-tuesday/index.html.
[27] High Fire Threat District (HFTD): A designation by the CPUC and CAL FIRE that a particular area is especially prone to wildfire propagation

a number that will almost certainly increase given the trends outlined in this section.[28] The situation is similar in Southern California, where utilities will also operate in more high-risk areas going forward. Southern California Edison (SCE) has about 35% of its service territory (of 50,000-square miles) in HFTD today,[29] and San Diego Gas & Electric (SDG&E) has 54% of its overhead circuit miles in HFTD (within their 4,100-square mile territory).[30]

Figure 3: Projected changes to annual area burned over time



Note: Projections use Cal-Adapt's CanESM2 (Average) model under RCP 8.5 (Business-as-usual) scenario

Source: Cal-Adapt, "Wildfire modeling tool," (2019) and California Public Utilities Commission, CPUC Fire Map, (2018)

To address climate change, California set ambitious policy goals to support a transition to renewable energy. The Renewables Portfolio Standard (RPS), established in Senate Bill (SB) 1078 (Sher, 2002) is one of the state's key programs for renewable energy. In 2018, SB 100 (de Leon, 2018) set updated RPS targets, requiring 60% of electricity retail sales to be served by renewable resources by 2030.[31] Largely as a result of this program, the California Air Resources Board (CARB) reported that 2016 electricity sector greenhouse gas (GHG) emissions were 37.6% below 1990 levels.[32] California's global leadership in implementing laws to reduce the causes and impacts of climate change is coupled with an effort to build stronger climate resilience throughout the state, including directing electric utilities to better prepare for the continued wildfire threats exacerbated by climate change.

[28] PG&E. *Amended 2019 Wildfire Safety Plan*. February 2019. http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M266/K647/266647757.PDF.
[29] Southern California Edison. *2019 Wildfire Mitigation Plan*. February 2019. http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M263/K645/263645320.PDF.
[30] California Public Utilities Commission. *Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901*. October 2019. http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M316/K882/316882215.PDF.
[31] California Public Utilities Commission. "Renewables Portfolio Standard (RPS) Program" 2020. https://www.cpuc.ca.gov/rps/.
[32] California Energy Commission. *Greenhouse Gas Emission Reductions*. December 2018. https://www.energy.ca.gov/sites/default/files/2019-12/Greenhouse_Gas_Emissions_Reductions_ada.pdf.

Fire Management and Suppression

While fire is an inherently destructive phenomenon, it plays a critical role in California's ecology. The California Forest Carbon Plan explains how, prior to 1900, many lower-intensity fires in mixed conifer forests helped reduce excess fuel, thin vegetation, and reduce competition for sunlight, nutrients, and water, resulting in healthy forests resilient to drought and native bark beetle outbreaks.[33] However, modern efforts to suppress all fire has led to a dangerous accumulation of potential fuels around the state. This includes both an increase in dead fuel stocks, as well as a buildup of "ladder fuels"[34] in unhealthy forests that allow fire to climb up from the forest floor into the tree canopy. Moreover, in many areas logging has resulted in a lower canopy and other changes in forest composition, making it easier for fires to propagate.[35]

While California is experiencing an increased number of severe fires recently, the state has seen fewer fires in the past 100 years, compared to the historic norm. At its most extreme, many areas of Northern California have seen a 67% (or more) reduction in fire frequency compared to pre-1908 historic fire regimes.[36]

This is in part because of significant efforts from the California Department of Forestry and Fire Protection (CAL FIRE) and the California Governor's Office of Emergency Services (Cal OES) to ensure public safety. Today California is often recognized as a global leader in coordinated wildfire response. Organizations such as FIRESCOPE, a cross-agency body established in the 1980s, have been especially successful in supporting coordination across local, state and federal fire agencies.[37]

Over the past century, the design and success of wildfire suppression policies have contributed to the exact conditions today that, conversely, result in the current wave of large-scale, high-intensity wildfires.

With fewer small fires to reduce sources of fuel, vegetation keeps building up, increasing the potential for hotter, higher-intensity fires.[38] Furthermore, large-scale, high-intensity wildfires are not only a consequence of climate change; they also negatively contribute to it by emitting carbon dioxide and particularly harmful black carbon into the air. To address these issues, experts calculate that as many as 15 million acres or almost half of all forestland in California need some sort of restoration.[39] This is particularly true in ten counties in Northern California, where more than 75% of land is forested.[40]

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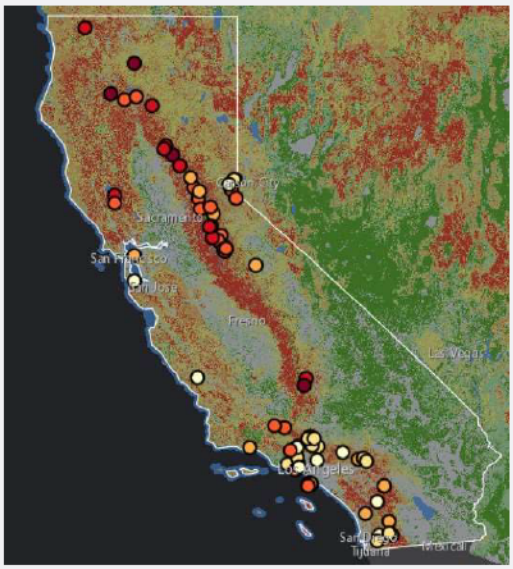
[33] CNRA, Cal EPA, CAL FIRE. *California Forest Carbon Plan*. May 2018.
[34] Ladder fuels are combustible materials, both live and dead, that provide a path for a surface fire to climb up into the crowns of shrubs or trees, according toe CAL FIRE.
[35] CNRA, Cal EPA, CAL FIRE. *California Forest Carbon Plan*. May 2018.
[36] Safford, Hugh, and Van de Water, Kip. *Using Fire Return Interval Departure (FRID) Analysis to Map Spatial and Temporal Changes in Fire Frequency on National Forest Lands in California*. USDA Forest Service, 2014.
[37] Cal OES. "FIRESCOPE California." 2020. https://firescope.caloes.ca.gov/Pages/About.aspx.
[38] CNRA, Cal EPA, CAL FIRE. *California Forest Carbon Plan*. May 2018.
[39] Ibid.
[40] USDA Forestry Service. *National Assessment – Resources Planning Act (RPA)*. 2019. https://www.fia.fs.fed.us/program-features/rpa/.

Wildland-Urban Interface Population

Today over a quarter of California's population—some 11 million people—live in areas where human development meets wildland fuels, otherwise known as the wildlife-urban interface (WUI). The state has the nation's largest number of homes in such areas (an estimated four and half million structures).[41] If nationwide trends hold true, with 41% population growth in the WUI and 33% growth in -size of the WUI since 1990,[42] the number of residents living in the WUI will continue to rise. Even more at-risk are the almost three million people that live in very-high fire severity zones in California today.[43] Many vulnerable populations, such as individuals that have fewer resources, limited access to a car, older individuals, individuals with disability, or those that live in areas with low-density housing, are impacted even more severely by living in high-risk fire areas. As Figure 4 shows, of the 75 communities that live in the highest-risk fire areas, almost 90% of the communities located in Northern California have moderate to very high social vulnerability, whereas this is true for only about 40% of the highest-fire risk communities located in Southern California.[44]

Figure 4: High-risk communities in California in 2019



- Very High Social Vulnerability
- High Social Vulnerability
- Moderate to High Social Vulnerability
- Moderate Social Vulnerability
- Low to Moderate Social Vulnerability
- Low Social Vulnerability

Note: Map includes the 75 California communities where over 90% of residents (in communities of 1,000 people or more) live in Very High Fire Severity Zones. This map highlights the relative social vulnerabilities in these communities, which impacts how well they may be able to respond and recover.

Source: Direct Relief, "Which California Communities are Most Vulnerable to Wildfires?" (July 30, 2019)

[41] Governor Newsom's Strike Force. *Wildfires and Climate Change: California's Energy Future*. April 12, 2019.
[42] Radeloff, Volker C., et al. "Rapid growth of the U.S. wildland-urban interface raises wildfire risk." *Proceedings of the National Academy of Sciences*, March 2018. https://www.pnas.org/content/115/13/3314.
[43] Meyes, Talya. "Which California Communities are Most Vulnerable to Wildfires?" *Direct Relief*, July 30, 2019. https://www.directrelief.org/2019/07/which-california-communities-are-most-vulnerable-to-wildfires/.
[44] Meyes, Talya. "Which California Communities are Most Vulnerable to Wildfires?"

Of course, the more people who live in fire-prone WUIs, the greater the risk to lives and property. The risk of wildfire also increases with the expansion of electrical service in new WUI development areas, as electric utilities have an obligation to serve homes in their service area. One researcher estimated over one million additional homes will be built in the California WUI in the next 30 years.[45] Moreover, the presence of homes in the WUI makes preventative measures (e.g. fuel management) and suppression more costly. Fire fighters have to take residences into account as they plan fire breaks, water drops, prescribed burns, and other measures.[46] Larger populations also mean that emergency egress during wildfires becomes more challenging. Taken together, all of this contributes to a potential for greater damage and a higher risk of fatalities in the case of a wildfire outbreak.

Utility Infrastructure

The severity of utility-related wildfire risk is not unique to California's IOUs. In Texas, in a three-and-a-half-year period, over 4,000 ignitions were related to power lines, resulting in over 640,000 acres of land burned and significant investment from the state to prevent future events.[47] In Victoria, Australia, utility-related fires caused the majority of deaths in the infamous 2009 "Black Saturday" fires.[48]

The most common cause of utility-related ignitions is vegetation contact. In the case of California, utility ignition data reported by the three IOUs for all fires that burned ten acres or more from 2014-2018 show that 53% of ignitions were caused from contact with foreign objects, of which 35% are from contact with vegetation. A second common cause of ignition for fires over ten acres is equipment failure (32%), of which splices/clamps/connectors and conductor failures are the specific failures that make up the greatest share of ignitions.[49]

Unusually strong winds exacerbate these problems~~, and such events are no longer anomalies in a world where climate change may cause more extreme wind days~~. For example, SDG&E weather equipment installed in 2010-2011 recorded data indicating wind gusts exceeding 100 mph~~, a new phenomenon in some areas~~.[50] These public safety risks will continue to grow, as the likelihood of trees flying into power lines or lines slapping together increases, and as climate change amplifies vegetation risk due to invasive species and tree mortality.

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[45] Mann, Michael L., et al. "Modeling residential development in California from 2000 to 2050: Integrating wildfire risk, wildland and agricultural encroachment." *Land Use Policy*. November 2014. https://doi.org/10.1016/j.landusepol.2014.06.020.
[46] Radeloff, Volker C., et al. "Rapid growth of the U.S. wildland-urban interface raises wildfire risk." https://www.pnas.org/content/115/13/331.
[47] Texas Wildfire Mitigation Project. "How do power lines cause wildfires?" 2014. https://wildfiremitigation.tees.tamus.edu/faqs/how-power-lines-cause-wildfires.
[48] Fairley, Peter. "How an Australian State Fought Back Against Grid-Sparked Wildfires." *IEEE Spectrum*, November 2019. https://spectrum.ieee.org/energywise/energy/the-smarter-grid/how-an-australian-state-faced-devastation-from-gridsparked-wildfires.
[49] California Public Utilities Commission. *Fire Incidents Data*. https://www.cpuc.ca.gov/fireincidentsdata/.
[50] Stark, Kevin. "PG&E Wants to Make a Massive Investment in Weather Stations. Here's Why." *KQED Science*, May 28, 2019.

1.2 Current State of Utility Wildfire Mitigation in California

To better understand the state of utility wildfire mitigation in California, this report's authors studied practices from around the world, interviewing experts and exploring lessons learned from other wildfire-prone geographies, such as British Columbia, Canada, Victoria, Australia, Spain, Portugal, and other areas of the U.S. The authors also reviewed hazard mitigation approaches for other climate-related natural disasters, such as floods and hurricanes, and examined approaches from risk-exposed industries, such as financial institutions, oil companies, the aviation industry, and national security agencies. These findings were then compared to the in-depth research collected on California's current mitigation programs via interviews, site visits, and secondary research to identify gaps and opportunities.[51] The observations and ideas gleaned from this research were discussed in formal CPUC workshops and in a Steering Committee with representatives from the WSD, the CPUC, CAL FIRE, Cal OES, and other state agencies.

The majority of this report focuses on the IOUs within California, as their scale enables them to lead a significant share of wildfire mitigation efforts. Publicly-owned utilities (POUs) and electrical cooperatives are also not subject to WSD approval of their wildfire mitigation activities and investments. While this report focuses on the IOUs, the specific recommendations and actions should also be considered by POUs and electrical cooperatives in order to address growing wildfire risk across the state.

Appendix 1 of this report examines California's current utility wildfire mitigation efforts in more detail, and also highlights several interesting, innovative practices for utility wildfire mitigation in other geographies that could inform further program development in California. These include:

Vegetation management practices that leverage advanced tools to track, predict, and detail vegetation around utility assets. The data is then used in close collaboration with contractors via specialized vegetation management software.

Technology innovation in Victoria, Australia, where a state program evaluates and pilots new technology in order to drive innovation independent of electric utilities. The program builds an impartial understanding of how effective new technologies are in reducing wildfire risk and accelerates adoption of technologies proven to cost-effectively reduce risk, such as the Rapid Earth Fault Current Limiter (REFCL).

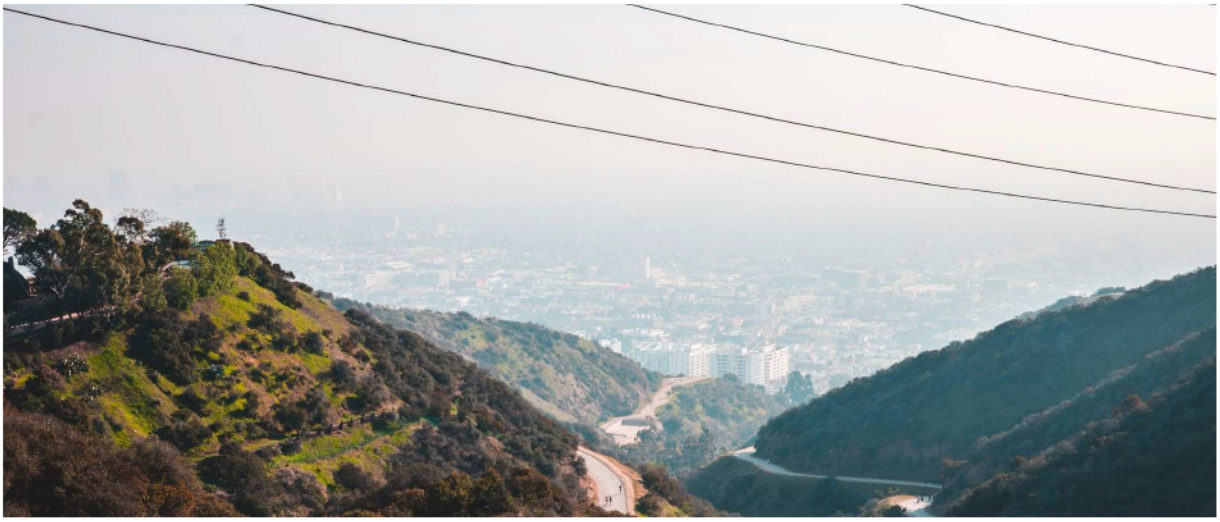
[51] These included the CPUC; SDG&E, SCE, PG&E, and other utilities; CAL FIRE; Cal OES; other federal and state agencies; community organizations like local Fire Safe Councils; research and academic institutions with fire science expertise; technology and software solutions companies; and public safety and environmental advocacy groups and individuals.

Risk assessment and mapping that uses sophisticated modeling and incorporates the latest insights from fire science to develop a single source of truth for wildfire risk in a specific geography.

Incentive programs specific to wildfire mitigation activities, such as one used to change utility behavior in Victoria, Australia. Their "F-Factor scheme" provides a monetary incentive to utilities for minimizing ignitions, and penalizes them for ignitions weighted by their severity. The CPUC has previously leveraged a variety of performance-based ratemaking mechanisms, though applying incentives to wildfire mitigation specifically may be a novel application of such programs focused on specific, measurable outcomes.

The WSD and California utilities are already implementing many best practices in order to prevent utility-related ignitions and minimize the severity of wildfires. IOUs in California are enhancing vegetation management practices and investing in innovative technologies, described in their 2020 WMP submissions. They are also investing in advanced fire propagation and simulation modeling to conduct more sophisticated risk assessment and mapping. However, directly replicating one mitigation approach to other utility service territories is not always the best approach as it may not account for the current and projected future differences between the size of the utilities' customer base and systems, as well as the variability and complexity in climate, ecosystems, and demographics. In California this is especially true, with differences amongst the three largest IOU service territories as outlined in Section 1.1.

In spite of recent progress, California utilities still have significant opportunity to improve their prevention programs, especially related to their long- term vision for and governance of utility wildfire risk reduction programs. The remainder of this report details an overall approach to utility wildfire mitigation, with four specific actions the WSD is taking to continue to drive improvements in wildfire mitigation efforts, as well as recommendations to further enable long-term risk reduction.



2

Strategic Approach for the WSD

2 **Strategic Approach for the WSD**

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2

WSD Strategic Approach

Approaches to utility-related wildfire mitigation must sustainably address growing utility-related wildfire risk in the long-term.

As outlined in Section 1, wildfire risk stemming from electrical infrastructure in California is expected to grow in coming years. While initial utility actions outlined within the 2019 WMPs are important, they are only a first step in mitigating this long-term risk. The ongoing effort to balance near-term fixes that will make each wildfire season less harmful to the public while focusing on long-term sustainability is not easy. To reduce the risk, the WSD, and the electric utilities whose WMPs the WSD is charged with reviewing and approving or denying, must first critically examine their actions today to ensure they are aligned to the ultimate goal of reducing utility-related wildfires.

With this in mind, four principles were identified from disaster management best practices and California's own disaster management expertise to inform the WSD's overall strategic approach to regulating utility wildfire mitigation efforts. These four principles are:

- **Effective collaboration**
- **Local perspective**
- **Long-term resilience**
- **Risk-informed, data-supported decisions**

To enact these four principles in the context of utility-related wildfires, a long-term vision for the WSD is proposed in Section 2.2:

A sustainable California, with no catastrophic utility-related wildfires, that has access to safe, affordable, and reliable electricity.

As the WSD pursues this vision, six objectives aligned to wildfire risk reduction with provision of safe, reliable electricity should guide the WSD and utility decision makers.

2.1 Principles for Utility Wildfire Mitigation Activities

The four principles outlined below are areas that are critical to success in any disaster prevention and management program. They can, and should, be used to inform the WSD's overall approach to evaluating utility wildfire mitigation activities.

1 Effective and Inclusive Coordination

In disaster management research, better coordination among stakeholders was the factor most commonly identified as contributing to successful disaster management throughout the life cycle of prevention, preparedness, response, and recovery.[52] Cal OES also identified coordination as a priority in their organizing frameworks: "unity of effort, unity of command, and the effective utilization and integration of resources are critical."[53]

As established in Section 1.1, utilities are central actors in helping to prevent future wildfires, of which many in recent years were generated from ignitions related to utility infrastructure. Today, utilities are primarily accountable for prevention activities that reduce the likelihood of ignitions stemming from their equipment, such as system hardening, vegetation management, and safe grid operations. While utilities have not historically been accountable for broader prevention activities, such as fuel management or community emergency planning, or response and recovery activities (excluding power restoration), they must work consistently and effectively with a broad set of actors—and vice versa—for wildfire mitigation actions to be successful. To this end utilities are responsible for integrating their efforts with other actors, including landowners, public safety partners, policy makers, and residents of the communities they serve.

For this reason, the approach to utility wildfire mitigation recommended in this report is intended not to encourage utilities to implement additional standalone activities, but to deepen utility collaboration with communities and other stakeholders as part of their prevention and mitigation strategies.

Utilities are making progress on this front by:

- Deploying new technologies and building capabilities to both identify ignition precursors and to detect actual ignitions earlier, all in support of emergency response actions
- Sharing grid and weather information (e.g. real time access to camera and weather station feeds) with public safety partners, as well as researchers and the general public, taking all confidentiality and security precautions due

[52] Moore, Melinda, et al. *Learning from Exemplary Practices in International Disaster Management*. RAND Health, 2007. https://www.rand.org/dam/rand/pubs/working_papers/2007/RAND_WR514.pdf.
[53] California Governor's Office of Emergency Services. *California Catastrophic Incident Base Plan: Concept of Operations*. September 23, 2008. https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/CA%20Catastrophic%20Incident%20Base%20Plan%20Conops.pdf.

- Collecting and sharing useful information that improves understanding of the conditions of utility assets as well as information related to the surrounding environment that represents the highest risks of ignition (e.g. extreme winds)

Opportunity exists to further leverage data for broader coordination, and in California utilities can work with universities and other organizations to build on existing programs. Many of the electric utilities today also leverage technology that models fire propagation. These programs, however, are executed in silos with limited collaboration to increase overall understanding of fire spread in the state. One example is in Victoria, Australia, where a tool called Phoenix RapidFire supports fire spread simulations and is used by local communities, fire suppression professionals, regulators, utilities, and others to establish a common source of accurate information about potential fire risk and to drive coordinated decision-making (further detailed in Appendix 1).

2 Localized Perspective

Another emphasis in disaster management is the importance of solutions that are focused on local perspectives. In the context of utility wildfire mitigation activities, it is critical for the WSD and utilities to place heightened emphasis on flexible, localized approaches that take into account differences across communities. In Victoria, Australia, this is done in coordination with Bushfire Committees that leverage risk-based decision-making processes to identify local values-at-risk. In California, utilities could better leverage existing structures to inform and adapt mitigation activities. For example, local hazard mitigation plans and local Fire Safe Councils can better inform the development of utility Wildfire Mitigation Plans and support the planning of local mitigation activities like vegetation management, all supplemented by more advanced data and analytical approaches.

3 Long-term Resilience

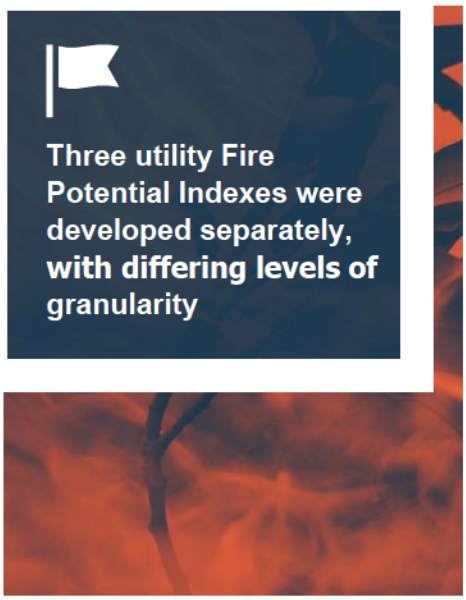
Best-in-class disaster management requires long-term planning backed by actions focused –on longer-term resilience that incorporate lessons learned from past events. This approach has been applied in places like Virginia Beach and the Florida Keys, which have moved toward long-term resilience against flooding from rising sea levels by rethinking the design and

location of new development~~,~~ and addressing difficult choices for existing communities.[54]

Although climate change is a driver in this ~~This~~ culture shift towards long-term adaptation and resilience, it has not yet been realized in utility wildfire prevention. Utility focus continues to be on preparing for the next wildfire season, whether related to Public Safety Power Shutoff (PSPS) events or preventing ignitions. While short-term action is required to prevent utility-related wildfires, to keep communities safe, and to create room for dialogue focused on long-term actions, these short-term actions cannot be done in isolation. Longer- term thinking must also begin now. One tangible example of the ongoing, short-term impact is the significant use of diesel-fueled generators during the past year of PSPS events,[55] an activity that could impact the state's climate change goals. Future activity needs to focus not only on what should be done next year, but also on what is required to prepare for the next 10, 20, or 30 years. Difficult questions must be asked about the future of the electric grid, resource management, land use, and community development.

4 Risk-informed, Data-supported Decision Making

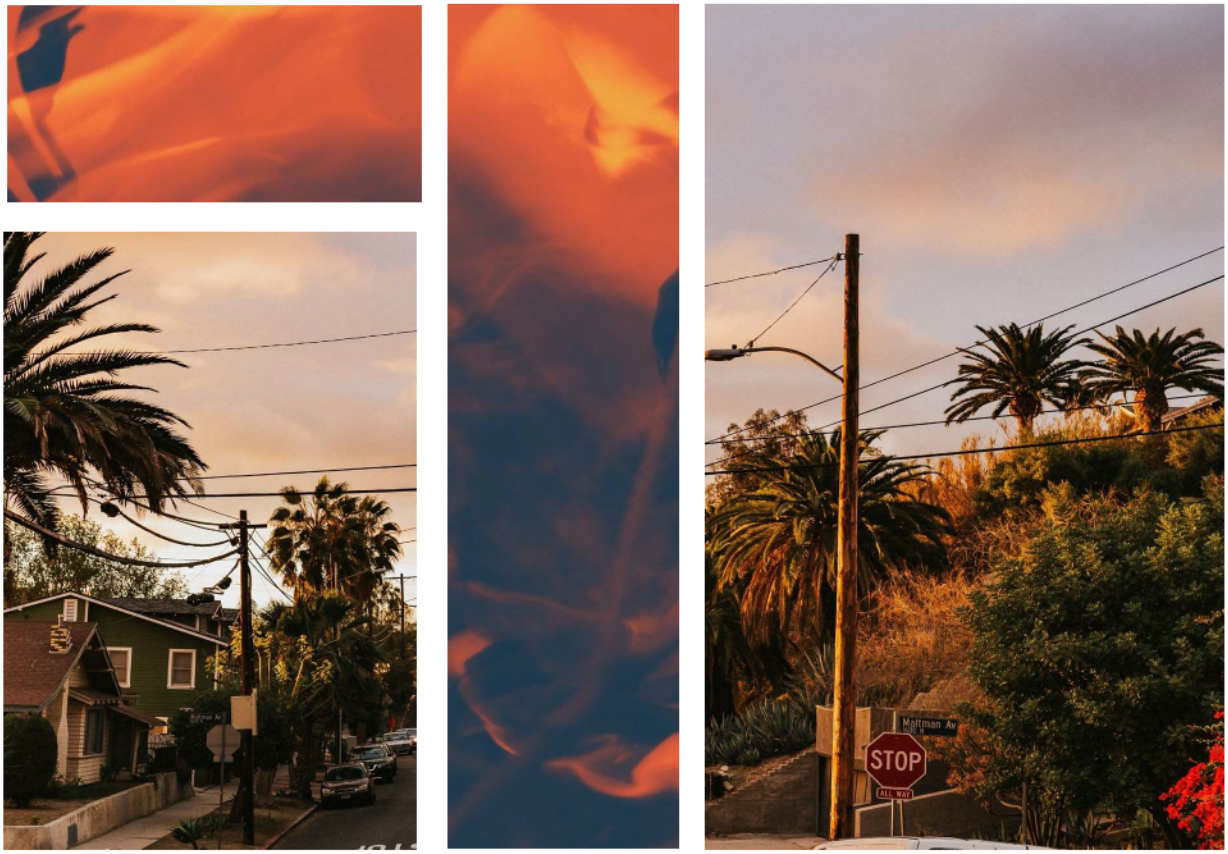
In natural disaster preparedness and response, the ability to determine the level of risk and then effectively notify the public to take action is essential.[56] From floods to tornadoes, being able to predict who will be at risk and when to take action has saved lives in California and around the world. Today, more effective tools are needed to predict and communicate wildfire risk. For example, in California today each of the three large IOUs have developed their own version of a Fire Potential Index (FPI) which they use to gauge and communicate risk.[57] These utilities' FPIs were developed separately, and account for weather, live and dead fuel moisture, and other conditions of their assets. Having different risk indices for different situations is important to adequately characterize risk exposure, but not even the utilities' FPIs can be compared to each other, as each has different levels of granularity.[58] Additionally, fire agencies such as CAL FIRE need more access to the detailed inputs in order to understand how to best utilize this information. Moreover, utility FPIs do not always correspond with the National Weather Service's Red Flag Warning (RFW) system that indicates risky conditions or Fire Weather Watches. This difference can generate conflicting views of risk with real implications (e.g., PSPS decisions) and can be confusing for the general public to understand. Additionally, tornadoes and



[54] Flavelle, Christopher, and John Schwartz. "As Climate Risk Grows, Cities Test a Tough Strategy: Saying 'No' to Developers." *New York Times*, November 19, 2019. https://www.nytimes.com/2019/11/19/climate/climate-real-estate-developers.html.
[55] California Air Resources Board. *Emission Impact: Additional Generator Usage Associated with Power Outage: Draft*. January 30, 2020. https://ww2.arb.ca.gov/sites/default/files/2020-01/Emissions_Inventory_Generator_Demand%20Usage_During_Power_Outage_01_30_20.pdf.
[56] Ringel, Jeanne S., et al. *Lessons Learned from the State and Local Public Health Response to Hurricane Katrina*. RAND, 2007. https://www.rand.org/content/dam/rand/pubs/working_papers/2007/RAND_WR473.pdf.
[57] SDG&E has also developed a Vegetation Risk Index (VRI) to describe the ignition risk posed by the characteristics and mix of vegetation in strike proximity to their powerlines; SCE, PG&E and SDG&E 2019 WMP submissions, https://www.cpuc.ca.gov/SB901/.
[58] SDG&E and SCE have three operating levels of the FPI (normal, elevated, or extreme conditions); PG&E has five levels.

hurricanes have 'scales' used to define the gravity of an event (e.g., Category 1-5 hurricanes); however, no such scale exists related to wildfires.[59]

A more granular use of data and technology also presents significant opportunity to improve decision making. A cohesive approach to data and analytics would support constructive dialogue and allow the WSD, utilities, and effected communities to better understand what prevention efforts work, and to improve resilience tactics. ~~One promising development is the establishment of the Wildfire Forecast and Threat Intelligence Integration Center under California law SB 209 (Dodd), whose mission is to collect, assess and analyze fire weather data, atmospheric conditions and other threat indicators that could lead to conditions where electrical infrastructure may spark ignitions that turn into large~~wildfires.~~[60]~~



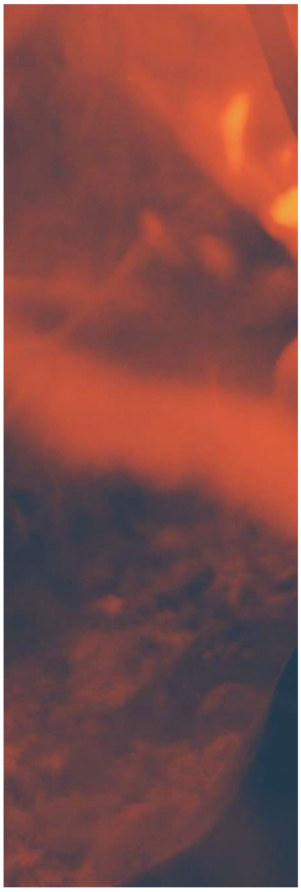
These four principles — effective and inclusive coordination, localized perspectives, long-term resilience and risk-informed, data supported decision making — are essential building blocks to incorporate into any approach that the WSD takes to evaluate and assess compliance to utility wildfire mitigation efforts and that the utilities take to reduce wildfire risk from their infrastructure. By incorporating four principles into a strategic vision, supported by ongoing near-term and longer-term actions, the WSD can better address the drivers of wildfires caused by ignitions stemming from utility infrastructure.

[59] Tedim, Fantina, et al. "Defining Extreme Wildfire Events: Difficulties, Challenges, and Impacts." *Fire*, 2018. 1(1), 9, doi:10.3390/fire1010009.
[60] Senate Bill 209 (Dodd, Chapter 405, Statutes of 2019), (SB 209).

2.2 Vision and Objectives

The four principles described in Section 2.1 are a critical foundation for any WSD action. However, before the WSD pursues additional actions or revises their existing approach, they need to more clearly articulate the problem to solve. Without this clarity, utilities may continue to focus on technical solutions or standalone activities. Only by articulating the holistic challenge can the WSD put the role of the utilities in the right context and clearly define the vision and objectives for utility wildfire mitigation. ~~Once t~~The WSD has clarified ~~this~~its vision and objectives, and the division ~~then~~ is now ~~can~~ advanc~~e~~ing~~e~~ the conversation about adjusting and prioritizing ongoing (or new) efforts.

To clearly define this challenge, this report puts forth a single, unified vision informed by local conditions and a set of related objectives. A well-articulated vision has multiple benefits. First, it provides simple, actionable guidelines for the WSD and utility leaders already involved in wildfire mitigation~~,~~ and shifts their focus towards a longer-term strategy. It enables existing fragmented, near-term decisions to be made in the context of longer-term planning. It defines common objectives that bring together disparate utility activities to foster collective commitment to meet measurable objectives and goals. It enables the WSD and utilities to effectively prioritize ongoing activities. Finally, it outlines the constraints that inform explicit decision-making and leads to thoughtful trade-offs around competing objectives.



The WSD and the utilities' roles to directly mitigate catastrophic wildfires is clear: ensure fewer and less consequential wildfires are caused by utility infrastructure. A significant amount of activity today is already underway in pursuit of this goal, including legislation focused on utility wildfire safety adapted by the California ~~l~~Legislature in recent years. However, ongoing short-term actions now need to build towards sustained, long-term activities that are required to minimize the impact of wildfires not just during the next fire season, but for many seasons to come.

Vision

The proposed activities in this report provide the foundation to achieve a new long-term vision for the WSD and the utility sector:

A sustainable California, with no catastrophic utility-related wildfires, that has access to safe, affordable, and reliable electricity.

This is a bold and aspirational vision, that is used for the purposes of this strategy and not meant at this time to be used to enforce penalties or interpret statute, but rather to give the WSD and utilities something to strive towards together and to set a high bar for the WSD and utilities to re-imagine a different future for California.

Proposed actions that build on ongoing activities in order to achieve this vision focus on catastrophic wildfire risk. Although it may have different meanings in different contexts, "catastrophic wildfire" has been used in legislation, reports, and action plans in California to refer to wildfires that pose a threat to lives, property, and resources.[61] Cal OES leverages the National Response Framework to define a catastrophic incident as one that may result in thousands of casualties, isolate affected areas, cause massive disruption of the area's critical infrastructure, overwhelm the response capabilities of state and local resources, or have long-term economic impacts.[62] However, because these definitions are so broad, it is difficult to identify specific fires as "catastrophic," making it hard to compare the progress of different regions in California—not to mention around the globe.[63]

For the purpose of this strategy only, "catastrophic" refers to any fire in California that meets one or more of following criteria, which are derived from California's historic deadly and destructive fires.[64] The criteria are:

Public Safety
Directly causes one or more deaths

Property
Damages or destroys over 500 structures

Natural Resources
Burns over 140,000 acres of land

The strategy outlined in this report is meant to help California prevent utility-caused wildfires of this magnitude from happening again. Specific objectives within this vision, which focus on areas where the risks to life and property are greatest, are outlined here.

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[61] This report is not aiming to apply this definition of the term catastrophic to other reports, or to any other situation. The outline within this section is solely meant to provide additional guidance within this report.
[62] California Governor's OES. *California Catastrophic Incident Base Plan: Concept of Operations*. September 23, 2008. https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/CA%20Catastrophic%20Incident%20Base%20Plan%20Conops.pdf.
[63] As discussed in Appendix 2, research to 'categorize' fires suggests differentiating between extreme wildfire events (which focus on responding to large, rapidly spreading fire) and wildfire disasters (which depend on local, socio-economic impact). The proposed vision and objectives focus on the 'disaster' aspect of catastrophic wildfire and outline objectives grounded in the State environment today.
[64] Every one of the top twenty deadliest fires in California history caused five or more fatalities; however, any fire that causes one or more fatalities is catastrophic. The top twenty most destructive fires also damaged over 500 structures and burned over 140,000 acres each.

WSD Wildfire Mitigation Objectives

Public Safety

Strive for zero deaths due to utility-related wildfires or mitigation activities

Property

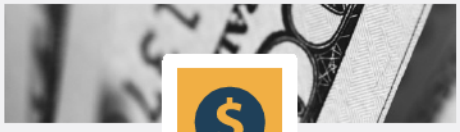
Reduce losses to structures and critical infrastructure from utility-related wildfires

Natural Resources

Support efforts in reaching 100% sustainable forests, watersheds, and communities

Reliability

Limit planned and unplanned outages due to utility-related wildfires and mitigation activities



Affordability

Ensure utilities prioritize and make prudent wildfire mitigation investments

Climate Action

Ensure utility wildfire mitigation activities also advance climate change goals

Objectives

The CPUC regulates services and utilities, protects consumers, safeguards the environment, and assures Californians' access to a safe and reliable electric grid. Within the CPUC, the WSD is responsible for evaluating utility efforts to decrease utility- related wildfire risk. This responsibility continues when the WSD moves to the CNRA and becomes the Office of Energy Infrastructure Safety (OEIS) by July 1, 2021. It is therefore a priority for the WSD to minimize the risk catastrophic utility-related wildfires have on public safety, property and natural resources.[65] Furthermore, the WSD must focus on ensuring communities maintain access to reliable, low-cost electric energy that continues to support the state's climate goals, as utility-related wildfires, and utility wildfire mitigation activities should maximize ratepayer benefits . The six objectives below are meant to create safer communities while also encouraging utilities to reduce the most risk with prudent investments while maintaining reliability of the grid.

Public safety: strive for zero deaths due to utility-related wildfires or mitigation activities

Ensuring communities can live without fear of the next fire is core to wildfire mitigation, and zero deaths is the only acceptable safety objective when 170 people have died from wildfires in the past ten years. Mitigation activities all aim to move this number to zero.

Property: reduce losses to structures and critical infrastructure from utility-related wildfires

Limiting the impact to property is second to individual safety but must remain a priority for the WSD and for utilities. The vast majority of structures impacted by wildfire in California today are residential, and a world with no catastrophic wildfires must minimize the impact on property.

Natural resources: support efforts in reaching 100% sustainable forests, watersheds, and communities

Mitigation efforts also will work to ensure resilient, sustainable forests, watersheds, and communities. While this objective does not set a specific goal for acreage burned, achieving sustainable and resilient forests means supporting ongoing activities, including efforts led by the California Natural Resources Agency and supported by the California Air Resources Board and the Governor's Forest Management Task Force (FMTF).

Reliability: limit planned and unplanned outages due to utility-related wildfires and mitigation activities

Electric ~~U~~utility (and other services that rely on electrical power including water and wastewater) reliability must not be impacted significantly from wildfire mitigation activities, or from catastrophic wildfires.[66] Furthermore, PSPS must decrease in scope from today, as outlined later in this section.

[65] The articulated fire severity objectives were informed by how CAL FIRE sets its objectives and priorities around fire suppression, one example being CAL FIRE's objective to keep 95% of fires to 10 acres or less.

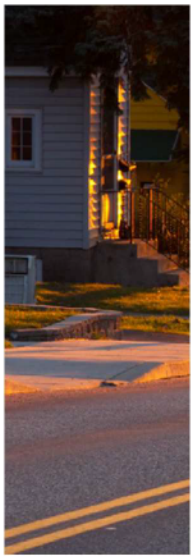
[66] Reliability impact can be measured by limiting the increase to the System Average Interruption Duration Index (SAIDI), which measures the system-wide total number of minutes per year of sustained outages per customer served

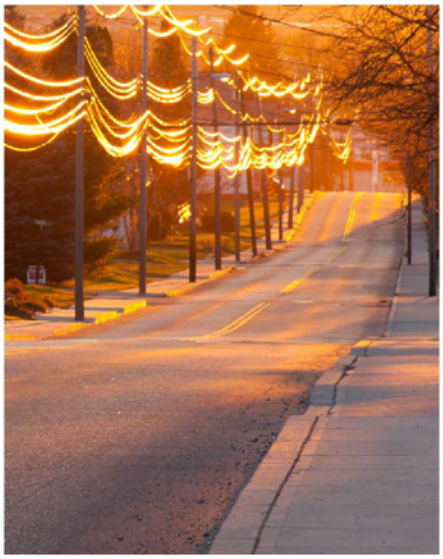
Affordability: Ensure utilities prioritize and make prudent wildfire mitigation investments
Utilities should consider the most reasonable ways to mitigate each driver of risk before selecting initiatives to pursue based on magnitude of risk reduction, cost, and other important factors.

Climate action: ensure utility wildfire mitigation activities also advance climate change goals
Utilities must support greenhouse gas (GHG) targets of reducing emissions to 40% below 1990 levels by 2030, which means mitigation activities must also support climate change goals (e.g. limit diesel generators usage due to PSPS).[67]

This proposed vision and the six objectives should be achieved while also limiting the use of PSPS to minimize the impact on communities in California. PSPS was used significantly during the 2019 wildfire season, showing its central role in utility wildfire mitigation strategies today. However, the CPUC has explicitly directed utilities to expand their 2020 Wildfire Mitigation Plans to reduce the need for PSPS events[68] and state leadership and residents across California view the magnitude of ~~previous~~ past years' PSPS events as unacceptable. Moreover, the impact of PSPS events on safety and climate change goals today is intolerable, and any actions working towards the overall vision above must also work to minimize the need to use PSPS as a wildfire mitigation tool.

It is hoped that these objectives can provide guidance towards the longer-term WSD vision and spur further conversations and alignment between the utilities, the WSD, and other stakeholders as they work towards a combined vision, align on levels of risk, and prioritize efforts accordingly.

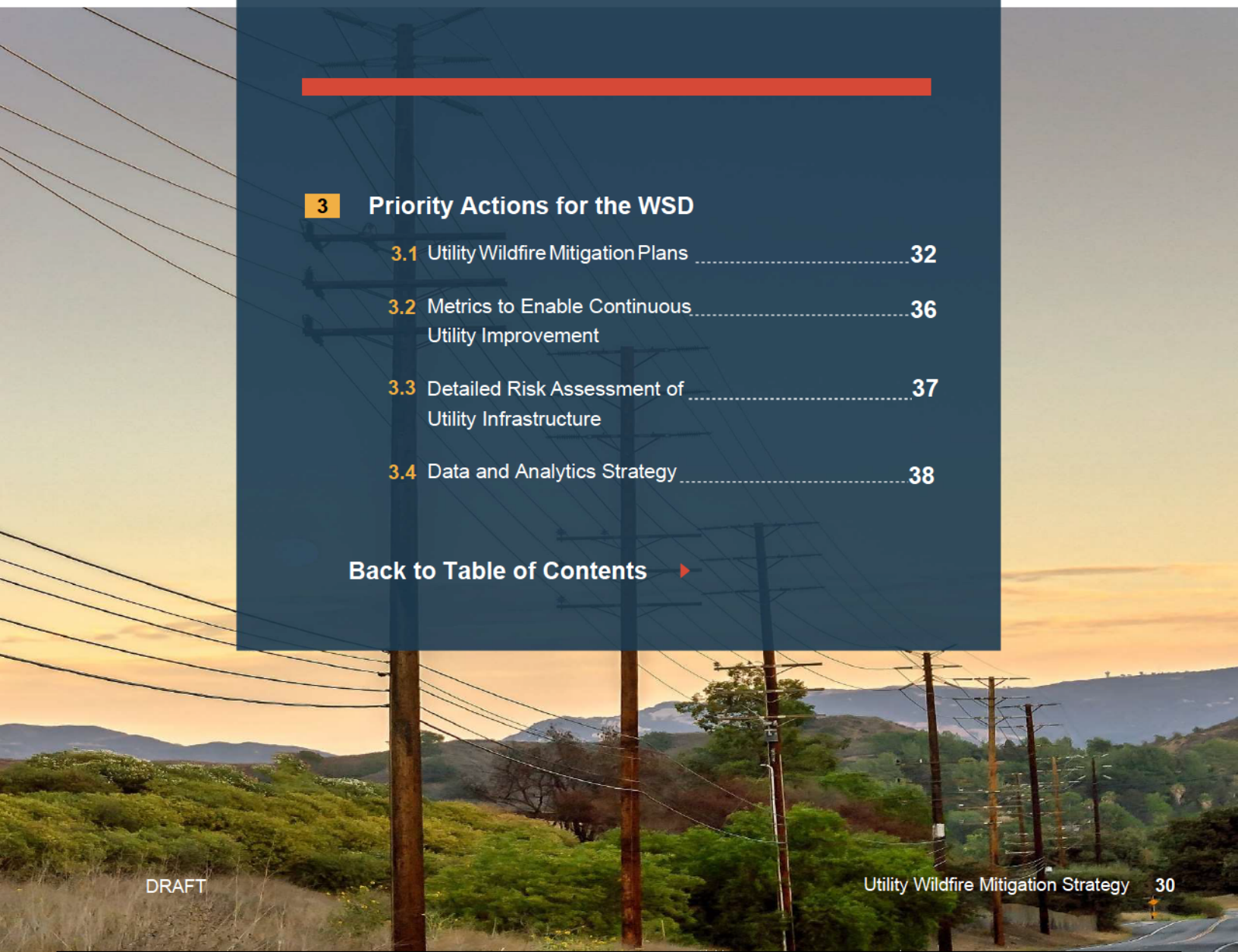




[67] California Energy Commission. *Greenhouse Gas Emission Reductions*. December 2018. https://www.energy.ca.gov/sites/default/files/2019-12/Greenhouse_Gas_Emissions_Reductions_ada.pdf.
[68] California Public Utilities Commission. *CPUC Takes Additional Decisive Actions to Hold Utilities Accountable and Increase Public Safety*. October 28, 2019. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M318/K885/318885370.PDF.

3

Priority Actions for the WSD



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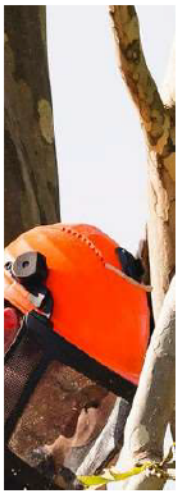


3 Priority Actions for the WSD

Together, the principles and proposed vision outlined in Section 2 are intended to guide the creation of a robust action plan that can enable the WSD to take on utility wildfire challenges over the next 20-30 years. In the meantime, there is an urgent need to focus on the near-term to make next fire season less disruptive and devastating than the catastrophic events of 2017 and 2018, ~~or~~ the widespread PSPS events of 2019, and the record-shattering breadth of fires in 2020. In parallel, initiating longer-term mitigation and adaptation activities will systematically reduce risk for the people of California. Consequently, the WSD has begun to both prepare for the next wildfire season and to address risk mitigation for 2021 and beyond by initiating four priority actions:

1. **Utility Wildfire Mitigation Plans:** ~~Revising the 2020~~Annual revisions to the ~~and beyond~~ Wildfire Mitigation Plan process and guidelines to better incorporate a more rigorous understanding of risk and the efficiency of program spending. Deploying the Utility Wildfire Mitigation Maturity Model to understand the sophistication of utility wildfire mitigation capabilities and to establish a baseline, track development over time, and identify best practices.

2. **Metrics to Enable Continuous Utility Improvement:** Developing a process and set of metrics to track and assess the approach, progress and results of a utility's WMP over time and ensure the continuous improvement and adaptation of utility wildfire mitigation tactics.

3. **Detailed Risk Assessment of Utility Infrastructure:** Modeling and analyzing wildfire risk from utility assets to communities, including wildfire risk from risk events ~~near misses~~.
   Ensure utilities use the data to inform prioritization of utility wildfire mitigation activities, including use of PSPS.

4. **Data and Analytics Strategy:** Developing a data and analytics strategy and provide the resources to support WMP review in the near-term and to drive analytics and better coordination in the longer-term.

The WSD is currently pursuing these activities within the CPUC~~,~~ and expects to continue them after transitioning to the CNRA in 2021 and becoming the Office of Energy Infrastructure Safety.

3.1 Utility Wildfire Mitigation Plans

The WSD's longer-term goal is for utilities to minimize both catastrophic wildfires related to electric utility infrastructure and PSPS impacts by developing mature wildfire mitigation capabilities and by designing a more resilient grid. The Wildfire Mitigation Plan (WMP) is the primary mechanism that the WSD has to hold electrical corporations—the three large IOUs, small and multi-jurisdictional utilities (SMJUs), and independent transmission operators (ITOs)—accountable for reducing wildfire risk and the use of PSPS. The WMP process seeks to enable the WSD to evaluate utility contributions to the WSD's vision and objectives for wildfire mitigation. In the inaugural 2019 WMP cycle, however, the CPUC had neither sufficient information nor the tools necessary to ascertain whether a utility's wildfire mitigation approach put it on the path to reducing wildfire risk and, if so, by what year this goal would be achieved.

In 2019, this oversight tool was focused on utility action in the near- to mid-term, prioritizing what the utility could achieve by the next fire season. The WMP process and its requirements were not designed to drive the long-term planning needed, both within utilities and across stakeholder groups, to address the state's wildfire crisis. Furthermore, the 2019 WMP guidelines did not require utilities to report information on their capabilities in a sufficiently standardized way that could be easily compared across time and against best practices. This limited the ability for the CPUC and utilities to objectively assess effectiveness of new initiatives, and to better understand the efficiency of the capital spent on wildfire mitigation.

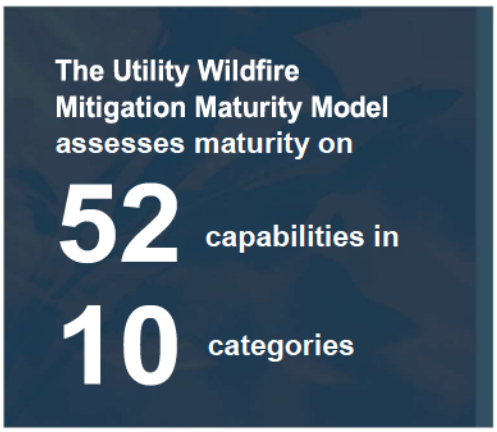
Based on lessons learned from the 2019 process, the WSD ~~is now~~has improv~~ed~~ing upon the CPUC's 2019 approach to better understand a utility's capabilities in addressing wildfire risk and has developed~~to develop~~ a set of metrics to gauge measurable utility progress toward the WSD's objectives. Five tools ~~are aiding~~aided the WSD's evaluation of utilities' 2020 wildfire mitigation efforts, with additional detail provided in the public CPUC proceeding ~~Resolution~~ Rulemaking (R.)~~-~~18-10-007:

- **Wildfire Mitigation Plan Guidelines:** Require utilities to file specific, structured, and comprehensive WMPs and structured and standardized data and commit the utilities to achieving results
- **Utility Wildfire Mitigation Maturity Model and Assessment:** Apply a maturity model and assessment to objectively evaluate utility capabilities in reducing wildfire risk using a consistent methodology and framework
- **Utility Survey:** Collect utility information relevant to the Utility Wildfire Mitigation Maturity Model to assist the WSD's maturity assessment
- **Wildfire Mitigation Plan Metrics:** Track each utility's ongoing wildfire mitigation approaches, progress, and outcomes
- **Supplemental Data Request (SDR):** Define a broader set of utility data used to evaluate utility plans, activities, and outcomes in greater detail. The purpose of the Supplemental Data Request is to obtain supplemental data that the utilities may have available in 2020, before potentially formalizing the request for the 2021 annual update

As part of their 2020 WMP filing in February, utilities followed the updated WMP Guidelines and completed the Utility Survey in preparation for their WMP submission. WSD staff ~~are using~~used data collected from the WMPs and the Utility Survey to evaluate utility wildfire mitigation maturity based on the Utility Wildfire Mitigation Maturity Model, issuing final action statements on the 2020 WMPs on June 10, 2020, which the Commission ratified on June 11, 2020.

Collectively, these tools are enabling the WSD to evaluate different aspects of utility wildfire mitigation efforts: the quality of a utility's mitigation efforts, its compliance with relevant rules and regulations, the maturity of current and planned utility capabilities, and measurable performance against outcomes. The updated WMP Guidelines are helping the WSD ensure that utilities both comply with today's requirements and also improve their capabilities and performance over time, while collecting relevant, standardized, and sufficient data. ~~It~~ The WMP Guidelines will also enable the WSD to better assess compliance to these activities.

The updated WMP Guidelines also contribute to a foundational understanding of utility wildfire risks and mitigation measures for both utilities and other stakeholders and will continue to help them develop a longer-term plan. While future guidelines will ~~likely require~~iterate upon the 2020 WMP Guidelines, ~~iteration,~~ the 2020 WMP Guidelines help establish a baseline for the risk that each utility faces and will enable planning over the three-year WMP cycle and beyond. In particular, the ~~updated~~ 2020 WMP Guidelines focus on longer-term investments and grid modernization, and are a first step toward enabling all stakeholders, including communities, to engage in longer-term planning that can reduce the probability of an ignition being caused by utility infrastructure, and the potential consequences should such an ignition occur. In addition to the revised guidelines, the newly introduced Utility Wildfire Mitigation Maturity Model ('maturity model') is designed to provide a more objective and standard judgment of the utility's capabilities, including the targets for improvement ~~over the next three years~~.



The maturity model describes 52 utility wildfire mitigation capabilities and corresponding maturity levels, organized into ten different categories, as outlined in Figure 5. Each capability is scored from zero (lowest maturity level) to four (highest maturity level) based on a set of objective criteria unique to each capability. The maturity levels are informed by practices surveyed from wildfire-prone geographies, including California; how well utilities adhere to existing regulations; and the effectiveness of their wildfire mitigation efforts.

The maturity model can be deployed in many ways. For the 2020 utility WMP submissions, the WSD ~~is implementing~~implemented the maturity model in order to gauge the capabilities, processes, and initiatives that each utility deploys to address wildfire risk, as well as the capabilities that the utility is concretely planning to build over the three-year scope of their WMP.

As part of their WMP submission, the utilities provided supporting data in structured templates as well as qualitative descriptions, and completed the Utility Survey to assist

the WSD with maturity model scoring. During annual updates, the WSD plans to re-assess each utility's level of maturity, tracking its improvement relative to the utility's own targets.

The maturity model can be used to drive continued improvement by requiring an increase in maturity over time. Even though the maturity assessment on its own does not establish an absolute maturity "passing score," the WSD may eventually require a minimum improvement commitment as a condition to approve each ~~wildfire mitigation plan~~WMP. The maturity model will also help to identify and share best practices among the utilities across each of the 52 individual capabilities. The WSD can work with subject matter experts to update the maturity model criteria ~~every three years or as needed~~. This will establish an evolving view of best practices and lessons learned from wildfire mitigation activities and will drive continued improvement over the longer term. Details on the maturity levels and implementation plan for the maturity model for 2020 are provided in the public CPUC proceeding R.18-10-007. The maturity model is a tool that can be applied to the evaluation of the wildfire mitigation maturity or the WMPs of not just IOUs but also POUs or electrical cooperatives, whose wildfire mitigation efforts are not subject to WSD approval.

Figure 5: Maturity model categories and capabilities

Category	I. Capability	II. Capability	III. Capability	IV. Capability	V. Capability	VI. Capability
A. Risk assessment and mapping	1. Climate scenario modeling	2. Ignition risk estimation	3. Estimation of wildfire consequences for communities	4. Estimation of wildfire and PSPS risk-reduction impact	5. Risk maps and simulation algorithms	
B. Situational awareness and forecasting	6. Weather variables collected	7. Weather data resolution	8. Weather forecasting ability	9. External sources used in weather forecasting	10. Wildfire detection processes and capabilities	
C. Grid design and system hardening	11. Approach to prioritizing initiatives across territory	12. Grid design for minimizing ignition risk	13. Grid design for resiliency and minimizing PSPS	14. Risk-based grid hardening and cost efficiency	15. Grid design and asset innovation	
D. Asset management and inspections	16. Asset inventory and condition assessments	17. Asset inspection cycle	18. Asset inspection effectiveness	19. Asset maintenance and repair	20. Quality Assurance / Quality Control for asset management	
E. Vegetation management and inspections	21. Vegetation inventory and condition assessments	22. Vegetation inspection cycle	23. Vegetation inspection effectiveness	24. Vegetation grow-in mitigation	25. Vegetation fall-in mitigation	26. QA/QC for vegetation management
F. Grid operations and protocols	27. Protective equipment and device settings	28. Incorporating ignition risk factors in grid control	29. PSPS op. model and consequence mitigation	30. Protocols for PSPS initiation	31. Protocols for PSPS re-energization	32. Ignition prevention and suppression
G. Data governance	33. Data collection and curation	34. Data transparency and analytics	35. Near-miss tracking	36. Data sharing with research community		
H. Resource allocation methodology	37. Scenario analysis across different risk levels	38. Presentation of relative risk spend efficiency for portfolio of initiatives	39. Process for determining risk spend efficiency of vegetation management initiatives	40. Process for determining risk spend efficiency of system hardening initiatives	41. Portfolio-wide initiative allocation methodology	42. Portfolio-wide innovation in new wildfire initiatives
I. Emergency planning and preparedness	43. Wildfire plan integrated with overall disaster/ emergency plan	44. Plan to restore service after wildfire related outage	45. Emergency community engagement during and after wildfire	46. Protocols in place to learn from wildfire events	47. Processes for continuous improvement after wildfire and PSPS	
J. Stakeholder cooperation and community engagement	48. Cooperation and best practice sharing with other utilities	49. Engagement with communities on utility wildfire mitigation initiatives	50. Engagement with LEP and AFN populations	51. Collaboration with emergency response agencies	52. Collaboration on wildfire mitigation planning with stakeholders	

3.2 Metrics to Enable Continuous Utility Improvement

Metrics allow the WSD to monitor progress of utility wildfire mitigation initiatives at a greater granularity than has historically been possible. Individual activities can be tied back to plans and linked to outcomes to better understand both progress of individual utility activities and their impact on overall outcomes.

The 2019 WMP submissions did not establish a consistent set of metrics to track the outcomes of utility mitigation programs. The utility submitted "metrics" primarily tracked the level of execution of each planned initiative without actually tracking the outcomes nor the effectiveness of the plan. These utility submitted metrics were deemed "program targets" by the CPUC in Decision 19-05-036, as they serve to track completion of the activities that the utilities set forth in their WMPs.

Because no standard metrics were defined across utilities, comparing progress in wildfire risk reduction efforts and comparing outcomes across utilities has been difficult. Going forward, the WSD aims to use a set of metrics to evaluate utility implementation of WMPs~~, a draft of which was provided in the public CPUC proceeding R.18-10-007~~. This includes three types of metrics:

Progress metrics are designed to track concrete actions toward reducing wildfire risk.

Program targets can continue to be employed by the utilities to track progress towards their own commitments. Utilities could update these by using the off ramp ~~process~~/ change order process[69] to ensure that program targets remain relevant.

Outcome metrics track measurable and quantifiable performance against related outcomes.

Progress metrics track WMP risk reduction activities in general to ensure utilities make investments and complete wildfire mitigation work as proposed, such as the extent of hardening across the grid.

In addition to progress metrics, utilities are also expected to develop a revised set of program targets to track implementation of their self-defined set of initiatives in their WMPs, such as completing the vegetation management activities outlined in their WMPs.

Outcome metrics for the WMP track performance against the wildfire mitigation objectives of the WSD: safety, property, natural resources, affordability, reliability of electricity supply, and climate action. Examples include fatalities caused by utility-related wildfires or by mitigation efforts, and structures damaged or destroyed by wildfires.

[69] D.19-05-036 establishes a process whereby utilities can modify, reduce, increase, or end "mitigation measures that are not working, or otherwise require modification" by filing a Tier 3 Advice Letter "Reports on Possible Off Ramps" that describes "any concerns about the effectiveness of any program in the WMP." See: CPUC, Decision 19-05-036, June 3, 2019, http://docs.cpuc.ca.gov/PublishedDocs/ Published/G000/M296/K577/296577466.PDF. The name "off ramp" was changed to "change

order" in Resolution WSD-002.

The specific metrics ~~are in development and~~ will continue to evolve as the WSD learns from each year's WMP evaluation~~,~~ but take into account six key principles. In general, the set of metrics must:

1. Provide a complete picture of a utility's contribution to and impact on longer-term objectives
2. Track information that can be used to inform action—for example, grid operations or capital allocation
3. Include lagging indicators to understand past incidents and help prevent recurrence, as well as leading indicators that can be used to prevent potential future incidents
4. Provide normalized data across utilities to ensure comparability across years and service territories
5. Use data analysis to determine which metrics best predict and/or reflect wildfire risk, and update the list of metrics accordingly
6. Be auditable so that the WSD and third parties can independently verify all utility reported metrics

~~The Supplemental Data Request (SDR) in the public CPUC proceeding R.18-10-007 outlines additional data that the agency has asked utilities to provide to the best of their ability in 2020 to support the WMP evaluation in greater detail.~~ The WSD aims to formalize the requirements for 2021 and beyond in the next WMP process.

3.3 Detailed Risk Assessment of Utility Infrastructure

In order to best prioritize wildfire risk reduction efforts and resource allocation, utilities must be able to quantify the potential impact of each type of initiative on wildfire risk. Prioritization of short-term wildfire risk reduction is informed by:

- the probability of ignition along the grid;
- the consequence of those ignitions on specific communities, given ignition location, propagation path, location of residents, and other key factors such as routes for evacuation and emergency responder ingress; and,
- the impacts of the PSPS that would be necessary to prevent such ignitions.

Calculating these three factors first requires utilities to have a detailed understanding of the location and condition of their equipment, the characteristics of vegetation and fuel stocks across their service territory, the ignition and wildfire propagation risk at each point of the grid, the location and needs of residents, and the location and limitations of other infrastructure such as roads or local energy resources. Utilities must then be able to use this information to conduct a risk assessment of their systems to identify what factors drive the greatest risk. They must be able to identify, for example, a particularly vulnerable type of equipment or a high level of risk exposure to a community—and to pinpoint the

communities that are at greatest risk as a result of these cumulative factors. This information can then drive utilities' prioritization of wildfire mitigation activities, including system hardening, grid modernization, vegetation and fuels management, and community engagement. Some of these factors can be identified by reviewing past ignitions and ~~near misses~~risk events, in combination with historical weather patterns. A number of factors, though, may only be assessed by wildfire propagation modeling and other advanced analytical approaches.

The 2020 WMP Guidelines incorporate risk analysis and scenario modeling of utility infrastructure as part of the maturity model capabilities in two categories: risk assessment and mapping and resource allocation methodology. The goal of including these categories is to encourage utilities to mature these capabilities in the upcoming WMP cycle. To the extent possible, the WSD will leverage the framework built in the ~~risk assessment mitigation phase.~~Safety Model Assessment Proceeding (S-MAP) including the Risk Assessment Mitigation Phase (RAMP) reports. ~~The goal of including these categories is to encourage utilities to mature these capabilities in the upcoming WMP cycle.~~

3.4 Data and Analytics Strategy

Data and analytics will enable decisions that are faster, more consistent, and more transparent, while ensuring utilities use an informed assessment of risk in the longer- term.[5] The WSD can benefit from a holistic data strategy to address both near-term milestones (e.g., the 2020 and 2021 WMP review) and to pursue its longer-term vision. For example, the WSD could develop data-driven insights using the metrics described in Section 3.2 to ensure decisions take into account utility compliance and effectiveness as well as wildfire mitigation activity spend and are aligned with the overall wildfire mitigation goals. Such a holistic approach is especially important because it will help to inform ongoing planning and operations by the utilities, to review existing and future WMPs, to support communication regarding ongoing activities, and to support longer-term planning.

A strong data strategy also enables the WSD to support the state's overall wildfire mitigation and management activities. In the near- to mid-term, a data strategy can help the WSD better facilitate wildfire-related insights, in coordination with agencies such as CAL FIRE and Cal OES. In the long-term, this initiative could position California as a leader on the global stage, highlighting new and innovative practices, as well as collecting ideas from other geographies that are pursuing advanced data-driven wildfire mitigation solutions. A data-driven regulatory oversight process also can enable the broader CPUC to more objectively scrutinize a larger volume of important utility decisions.

Implementation of a robust, best-in-class data strategy is a gradual, multi-phased journey. This is because designing and executing a holistic data strategy often requires significant resource

[5] The WSD supports stakeholder engagement in the process to the fullest extent possible given statutory requirements and timelines. The WSD will continue to post all non-confidential information on its webpage.

commitments and a fundamental shift in existing ways of working. Therefore, organizations embarking on such strategic digital transformations typically implement it in a phased approach to allow adequate pace for sustained change. With this in mind, the WSD has begun to pursue a three-phased implementation, outlined in Figure 6, and sequenced over a 12-plus month timeline. Additional detail for the suggested implementation is in Appendix 3.

Figure 6: Proposed WSD Data and Analytics Roadmap

	Shorter-term (2020)	During Next WMP Cycle (2020–2022)	Longer-term (2023+)
Objectives	Establish vision and goals Support WMP review Build capabilities	Design and build digital platform for use cases Procure software	Enable advanced capabilities Establish external stakeholder connections
People	Develop data governance playbook to provide standards for data sharing across state agencies and associated partners	Engage program management team to define needs, use cases Engage platform management team for software build-out	Enable collaboration with external stakeholders Facilitate data capture for next-generation analytics
Process	Ensure data security protocols are executed Build preliminary data dictionary and taxonomy to support standardization of data inputs	Design platform architecture Continue build-out of data taxonomy and dictionary	Enable predictive analytics and next-generation insights Transform WMP, utility ops reviews into data-driven processes
Tools	Utilize standardized templates (data schema) Develop secure file repository with standardized file	Procure platform software Integrate data collection software to connect data providers	Build out reports, dashboards, and algorithms to power predictive analytics and support proactive decision making

4

Collaboration Areas for the WSD and Utilities

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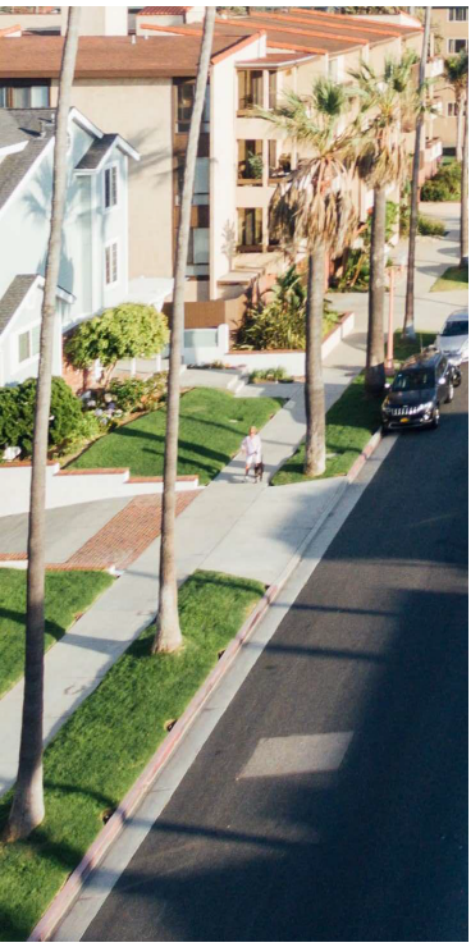

4

Collaboration Areas for the WSD and Utilities

Collaboration within the broader utility wildfire mitigation enabling environment is critical to success.

In order for the WSD to pave the way globally in wildfire mitigation, it should not only pursue the activities laid out in Section 3, but also ensure utilities work within the broader utility wildfire mitigation enabling environment. This includes building critical processes, developing new tools, and improving capabilities related to utility wildfire mitigation. Both the WSD and utilities have the opportunity to pursue activities in support of this broader enabling environment, in collaboration with other agencies and stakeholders in California.

Four critical collaboration areas where the WSD or utilities could directly work with others, have been identified. These areas are ones that could make a difference in helping the state reach the kind of sustained change required to achieve resilience, versus one-off efforts that result in short-term impact.

These four areas build on one another, with successful support providing the potential to move California more quickly towards a vision of no catastrophic utility-related wildfires. They also enact the strategic principles laid out in Section 2 and drive towards overall improvements in utility wildfire mitigation.

These areas include:

- **Governance and coordination**
- **Culture and behavior**
- **Applied science, technology, and data**
- **Workforce development**

In addition to building on the four enablers, the WSD must also continue to implement policy and regulation related to utility wildfire mitigation and ensure adequate resources to complete their responsibilities.

Collaboration Areas

Governance and Coordination

Statewide Coordination

The WSD needs to work closely with a broad set of external stakeholders, and the Wildfire Safety Advisory Board (WSAB)[6] ~~, and ongoing collaboration with the CPUC~~ to reach the proposed long-term vision. Utilities will also have to coordinate with others as they execute their WMPs. Mitigation efforts are substantial, and require federal, state, and local agencies, as well as private actors and individual communities to work together. The following activities are select examples of ongoing or proposed efforts that would benefit from increased coordination and collaboration driven by the WSD or utilities:

Improving community wildfire preparedness and emergency response by working closely with CAL FIRE, Cal OES, community organizations such as Fire Safe Councils, County ~~and local government~~ OES, and other public safety partners[70] by building risk into, and updating more often, existing Community Wildfire Prevention Plans (CWPP), local hazard mitigation plans, and by sharing information regarding specific wildfire mitigation programs in each county and with local governments.

Pursuing additional utility wildfire research and development priorities in coordination with the California Energy Commission (CEC), the California Air Resources Board (CARB), CAL FIRE, and research institutions (e.g., universities, national labs), and initiating collaborative projects to test new utility wildfire risk reduction technology and solutions independently, or with independent verification.

Driving further environmental sustainability and fuel management activities in collaboration with the Forest Management Task Force, the California Natural Resources Agency (CNRA), and the Governor's Office of Planning and Research (OPR). This could include coordinated local and state level planning to better connect utility projects to other efforts and potentially create a single source of truth for this work (e.g., GIS-supported database).

In addition to coordinating ongoing activities, the WSD is positioned to drive more formal collaboration of statewide utility-related wildfire policy and strategy. Collaboration is critical to plan for the longer term and discuss trade-offs between near-term and long-term needs. The WSD will need to collaborate with leaders from other agencies – including CAL FIRE, Cal OES, and the CNRA – to align the direction of their utility wildfire mitigation efforts with others.

Local Coordination and Community Engagement

Communities play a critical role in assessing local risk and implementing solutions. When

[6] WSD will transition to OEIS in July 2021 and will continue to collaborate with the CPUC.

[70] "Public Safety Partners" include first / emergency responders at the local, state, and federal level; water, wastewater, and communication service providers; affected community choice aggregators and publicly owned utilities/electrical cooperatives; the CPUC; Cal OES; and CAL FIRE.

communities are prepared, residents can coordinate prevention activities during a fire, effectively shelter in place in designated areas, evacuate quickly, and be prepared with the supplies to keep themselves safe during wildfires and PSPS events. Potential utility engagement with local communities, including ~~vulnerable~~access and functional needs and marginalized communities, government organizations, and tribal organizations is especially critical in two areas:

Improving community resilience by engaging communities better and more often, especially related to ongoing mitigation efforts, and reacting to, and preparing for, potential PSPS events.

Assisting with ongoing emergency preparedness efforts by better supporting the development of ingress and egress routes, incorporating local emergency plans into mitigation activity planning, and providing input into local emergency plans, local hazard mitigation plans and other existing local emergency response systems and processes.

Local leaders involved in resilience, such as Fire Safe Council leaders or Watershed Coordinators,[71] could also benefit from a standardized 'Fire Safety Toolkit' that brings together current practices, programs, and public safety recommendations from Cal OES, CAL FIRE, and others. The WSD and utilities could contribute to such a toolkit that could be developed in coordination with CAL FIRE and Cal OES, be available in multiple languages, and have five components:

1. Overall best practices for engaging communities in prevention, mitigation, and emergency preparedness activities
2. Detailed Community Wildfire Prevention Plan outline, including risk considerations and process to prioritize assets, as well as additional context for what a plan should entail
3. An example plan to better engage communities in wildfire mitigation activities
4. Outline of existing, potential funding sources for fuel management and emergency preparedness activities (e.g., CAL FIRE Fire Prevention grants,[72] local disaster resilience grants,[73] Fire Management Assistance Grants)[74]
5. Process outline for executing best practice fuel management and emergency preparedness programs, with additional information on likely barriers and resources for leaders (e.g., Listos California)[75]

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[71] Watershed Coordinators lead watershed management efforts in local communities
[72] CAL FIRE. "Fire Prevention Grants Program." https://www.fire.ca.gov/grants/fire-prevention-grants/.
[73] Cal OES. "California Disaster Assistance Act (CDAA)." https://www.caloes.ca.gov/cal-oes-divisions/recovery/public-assistance/california-disaster-assistance-act.
[74] Cal OES. "Fire Management Assistance Grant (FMAG)." https://www.caloes.ca.gov/cal-oes-divisions/recovery/public-assistance/firemanagement-assistance-grant.
[75] Listos California, https://www.listoscalifornia.org/.

Culture and Behavior

It is important for utilities to develop a culture that ensures actions build toward a single vision for utility wildfire mitigation. The actions below focus on ways to shift utility culture away from a culture focused solely on compliance, towards one that encompasses public safety and risk management. Actions to build a longer-term, sustainable public safety cultures in utilities include:

Developing a safety culture assessment and initiating a comprehensive review of wildfire-related safety programs within utilities, led by the WSD per statutory requirements, with accountability to ensure all utilities improve their broader public safety culture.

Exploring options for performance-based incentives such as an incentive structure called the F-Factor scheme that is used in Australia, detailed in Appendix 1. Already, IOUs must demonstrate a link between executive compensation and public safety performance to receive a safety certification ~~that grants access to the Wildfire Fund~~ established in AB 1054[76] and AB111.[77]

Pursuing additional actions to drive overall utility culture change, including using the WMP and other regulatory mechanisms to initiate a shift from a focus on near-term individual crisis management towards a long-term focus on public safety, improving preparedness with advanced planning and training, and a continued overall focus on prevention.

Applied Science, Technology, and Data

Continued investment in technology and innovation is also important to enable long-term utility wildfire mitigation activities. To set the foundation for resilience, the WSD and utilities could:

Pursue more advanced grid innovations by supporting efforts to test and design a modern, resilient electric system to power California not just today, but for the foreseeable future to reduce the risk of wildfires. Utility investment could build upon R&D programs such as the CPUC Electric Program Investment Charge (EPIC), while further research is also needed related to biomass-fueled generation, mini-grids serving remote communities (drawing upon work by Lawrence Berkeley National Laboratory[78]), micro-grids powered by renewable resources, and other less mature innovations.

Invest in WSD data and analytic capabilities using a data governance framework that connects the existing WSD and utility investments in data and analytics, while coordinating with other stakeholders such as CAL FIRE and Cal OES. This can avoid redundancy and support the development of more advanced technological capabilities. Such software tools coordinate activities and provide essential

[76] Assembly Bill 1054 (Holden, Chapter 79, Statutes of 2019), (AB 1054).
[77] Assembly Bill 111 (Committee on Budget, Chapter 81, Statutes of 2019), (AB 111).
[78] Hartvigsson, Elias, Stadler, Michael, and Cardoso, Gonçalo. "Rural electrification and capacity expansion with an integrated modeling approach." *Lawrence Berkeley National Laboratory*, January 2018. http://eta-publications.lbl.gov/sites/default/files/pdf_11.pdf.

information to leaders dealing with emergency response, fuel management, and other prevention activities.

Advance fire science, participate in current ongoing statewide research efforts, and ~~and~~ create a scientific research plan for wildfire mitigation. As additional WSD and utility data becomes available related to the success of mitigation activities, this could provide the backbone for new fire science research. Specific areas of interest are best practices in the face of changing climate, a better understanding of forest health and resilience, new WUI building standards, advanced utility technology, and research to support resilient communities.

Workforce Development

To support execution of the many activities laid out in this report, skills and expertise must be developed at every level – from the WSD and utility leadership to local communities:

Train additional personnel to meet current demands, as the utilities, the CNRA, and local communities have each cited the lack of skilled workers as a constraint on executing vegetation and fuel management projects. Utilities need to support programs to train personnel to design and execute fuel management programs, foresters, and Certified Arborists need to be developed or scaled further.

Increase expertise to support utility wildfire mitigation efforts. The WSD should enhance its wildfire safety capabilities and oversight capacity including: wildfire mitigation expertise to better evaluate WMPs; data and analytical skills to interpret data and drive advanced analytics; understanding the requirements to drive safety culture improvements; and advanced project management skills to engage and drive coordination across a broader set of stakeholders.

Other Critical Collaboration Areas

In addition to actions the WSD and utilities should take to collaborate with others in the four areas outlined in this section, the WSD is also responsible for implementing existing and future legislative priorities. This includes the evolution of the Wildfire Mitigation Plans, and a continued focus on proactively reducing utility-related wildfire risk. Changes to other legislation and regulation governing utility wildfire mitigation, as well as funding available for prevention and mitigation initiatives, will also direct WSD efforts.

The CPUC also has several open proceedings and has issued guidance on topics including Microgrids and Resiliency,[79] De-Energization,[80] and Wildfire Mitigation Plans,[81] that will inform future evolutions of the utility wildfire mitigation strategy.

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[79] California Public Utilities Commission. *Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339*. September 19, 2019. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M314/K274/314274617.PDF.; California Public Utilities Commission.
[80] *CPUC Proposes Additional PSPS Guidelines for Utilities and Orders PG&E to Resume and Augment Corrective Action Reports.* January 30, 2020. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M326/K268/326268463.PDF.;
[81] California Public Utilities Commission. *RESOLUTION WSD-001 to Establish Procedures for the Wildfire Safety Division's Review of 2020 Wildfire Mitigation Plans Pursuant to Public Utilities Code Sections 8386 and 8386.3*. January 16, 2020. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M324/K966/324966978.PDF.

5

Conclusion

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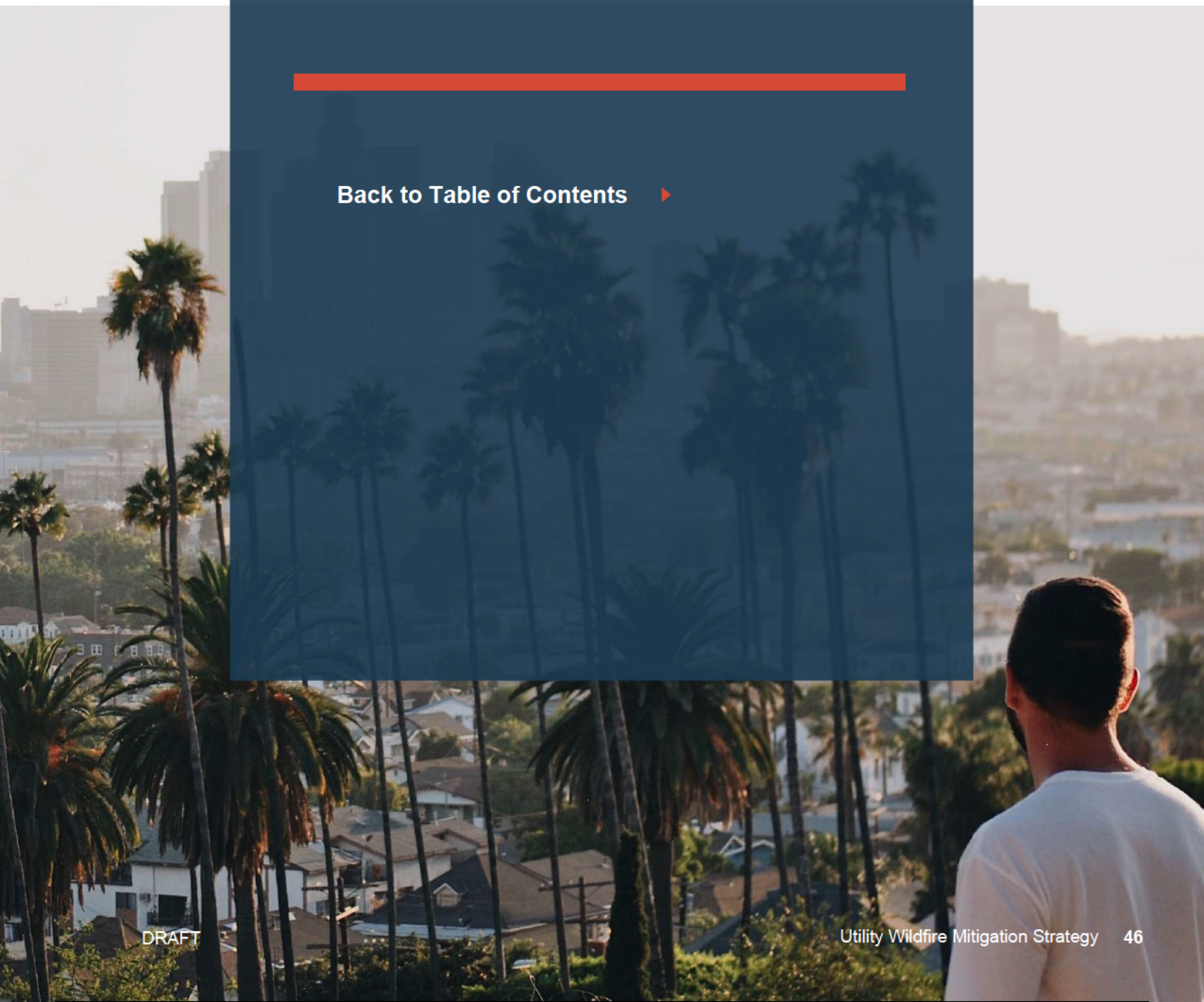


5 Conclusion

California is one of the areas most threatened by catastrophic utility-related wildfires today, as it faces unprecedented threats exacerbated by climate change. While it is a global leader in the effort to combat these costly and often deadly blazes, work remains given the recent string of severe wildfires. This presents an enormous opportunity for the WSD, along with the utilities whose WMPs the WSD is charged with reviewing and approving or denying, to formulate a best-in-class utility-related wildfire risk management strategy. Given the scale and the complexity of the problem, the task ahead will not be simple. However, solving California's utility-related wildfire challenge is certainly doable, and it will take a set of continued action, as suggested in this report, to address both immediate and long-term needs.

To start, this report proposes a comprehensive vision statement for the WSD: **a sustainable California, with no catastrophic utility-related wildfires, that has access to safe, affordable, and reliable electricity.**

Moving towards a sustainable future with no catastrophic wildfires related to electric infrastructure is a challenge, yet it can be achieved. What is needed is a clear path for action, one that takes into consideration both crucial short-term steps and a coherent plan for the long-term with the WSD and utilities driving towards common objectives. A roadmap outlining the potential path forward is laid out in Figure 7. It shows how the four principles—effective collaboration, local perspective, long-term resilience, and data-supported decision-making—could build over time with actions being taken by the WSD and utilities by the end of 2020, during the next WMP cycle (2020-2022), and in the longer-term (2023+).

To meet this ambitious vision and rise to the challenge, utilities need to continue to transform the way they operate. They need to use advanced, predictive data analytics, more accurate metrics and establish cultures that stress collaboration and public safety. In working towards these efforts, four ongoing WSD actions are aiming to drive near-term results:

1. **Revising the Utility Wildfire Mitigation Plan framework**, including a new utility Wildfire Mitigation Maturity Model
2. **Establishing outcome and progress metrics** to enable continuous improvement
3. Conducting a **detailed risk assessment** of utility infrastructure
4. Developing an **advanced data and analytics strategy**

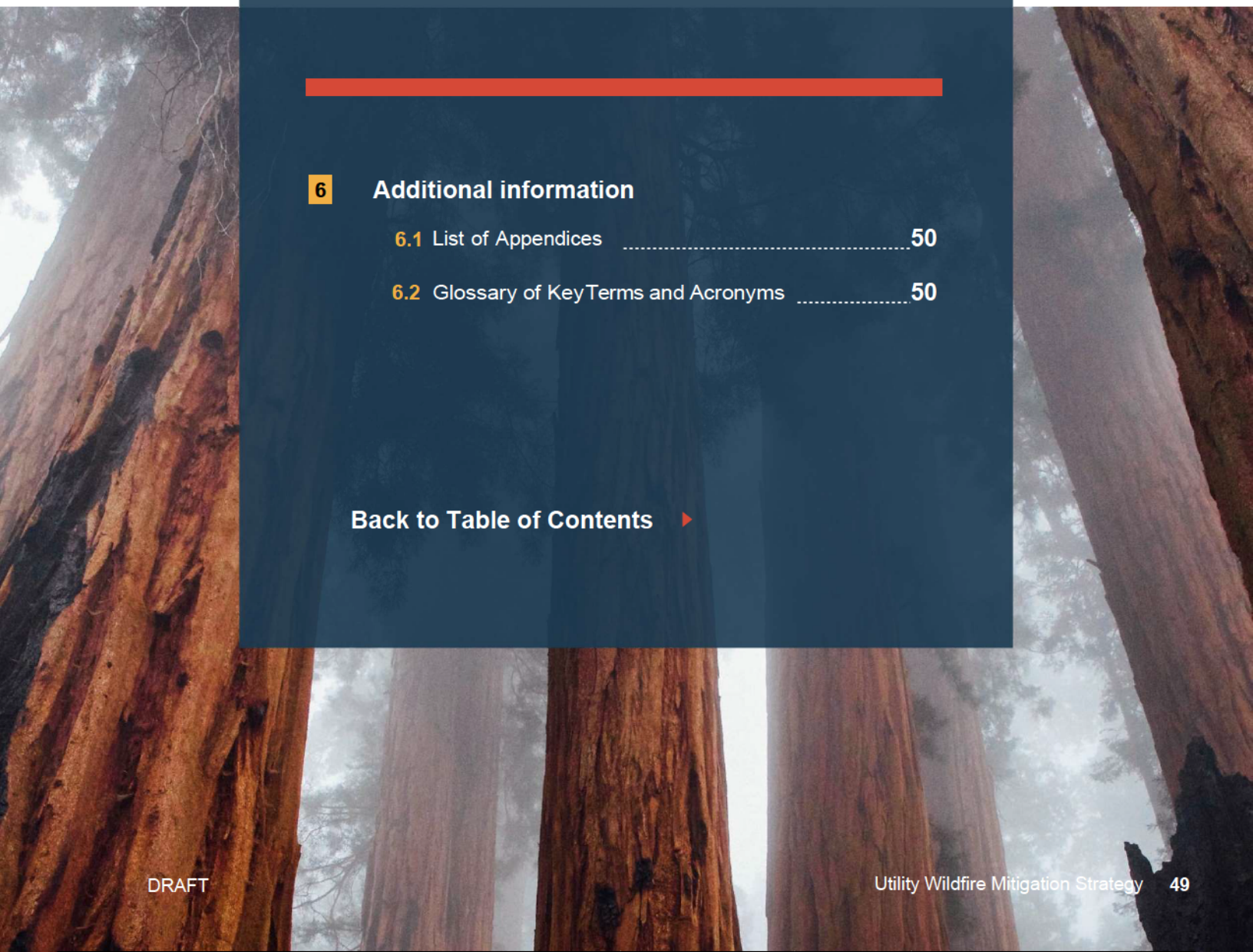
These activities are only sustainable in the long-term if the WSD and utilities collaborate with others to build longer-term resilience. To that end, four critical areas for collaboration were identified: (1) governance and coordination; (2) culture and behavior; (3) applied science, technology, and data; and (4) workforce development.

By pursuing these activities, the WSD can achieve its objectives and ensure utilities reduce utility wildfire risk, while leading innovations in global utility-related wildfire mitigation efforts. Before the next fire season, in the next three years, and in the next ten years, communities can become more resilient. It will take continued action from everyone involved, but focused activities, informed by data and coordinated together, can lead to a safer and more sustainable California.

Figure 7 Suggested high-level roadmap

6

Additional Information



6 Additional information

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6 Additional Information

6.1 List of Appendices

1. Global Strategies for Utility Wildfire Mitigation
2. WSD Wildfire Vision and Objectives
3. Utility Wildfire Mitigation Data Strategy

6.2 Glossary of Key Terms and Acronyms

Acronyms

CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
CARB	California Air Resources Board
CEC	California Energy Commission
CNRA	California Natural Resources Administration
CPUC	California Public Utilities Commission
CWPP	Community Wildfire Protection Plan
FMTF	Forest Management Task Force
GRC	General Rate Case
IOU	Investor owned utility
ITO	Independent transmission operator
OEIS	Office of Energy Infrastructure Safety
PG&E	Pacific Gas & Electric
PSPS	Public Safety Power Shutoff
REFCL	Rapid Earth Fault Current Limiter
SAIDI	System Average Interruption Duration Index
SAWTI	Santa Ana Wildfire Threat Index
SCE	Southern California Edison
SDG&E	San Diego Gas & Electric
SMJU	Small-and-multi jurisdictional utilities
USFS	United States Forest Service
WMP	Wildfire Mitigation Plan
WSAB	Wildfire Safety Advisory Board
WSD	Wildfire Safety Division of the California Public Utilities Commission
WUI	Wildland-urban interface

Key Terms

Bureau of Land Management (BLM): An agency of the United States Department of Interior that manages 15 million acres of land in California[82]

Bushfire Committee: A municipal-level non-government organization in Australia, comprised of a mix of residents, elected officials, and state fire professionals, tasked with assessing wildfire risks and developing plans for risk mitigation and wildfire response

California Air Resources Board (CARB): Agency of the California Environmental Protection Agency (Cal EPA) charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change[83]

California Department of Forestry and Fire Protection (CAL FIRE): Department of the CNRA responsible for fire protection in State Responsibility Areas[84]

California Energy Commission (CEC): State's primary energy policy and planning agency, responsible for promoting innovation, permitting energy generation plants, and administering the RPS with the CPUC (among other responsibilities)[85]

California Natural Resources Agency (CNRA): State department responsible for protecting historical, natural, and cultural sites, and monitoring and controlling state lands

California Governor's Office of Emergency Services (Cal OES): State agency responsible for overseeing and coordinating emergency preparedness, response, recovery

California Public Utilities Commission: State commission empowered to oversee activities of utilities

Catastrophic wildfire: As defined in Section 2 of this report, a fire that either causes at least one death, damages over 500 structures, or burns over 140,000 acres of land

Community Wildfire Protection Plan (CWPP): Plan that guides a community's wildfire response, hazard mitigation, preparedness, and/or structure protection[86]

Defensible space: Area around a building that is cleared of vegetation, in order to slow or stop the spread of a fire

Egress: Ability to evacuate in the event of an oncoming wildfire

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[82] Bureau of Land Management. "What We Manage – California." https://www.blm.gov/about/what-we-manage/california.
[83] The California Air Resources Board. https://ww2.arb.ca.gov/about.
[84] California Energy Commission. "Core Responsibility Fact Sheets." https://www.energy.ca.gov/about/core-responsibility-fact-sheets.
[85] California Forest Management Task Force. *"Restoring Health and Reducing Wildfire Threat to California's Forests."* https://fmtf.fire.ca.gov/.
[86] Forests and Rangelands. *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities.* USDA, March 2004. https://www.forestsandrangelands.gov/documents/resources/communities/cwpphandbook.pdf.

Federal Emergency Management Agency (FEMA): Agency of the United States Department of Homeland Security focused on domestic disaster preparedness, response, and recovery

Fire season: Period(s) of the year during which wildland fires are likely to occur, spread, and affect resource values sufficient to warrant organized fire management activities[87]

Fire Safe Council: A community association focused on educating residents, and funding and leading measures to reduce local wildfire risk

Fuel: Combustible wildland vegetative materials, living or dead

Fuel density: Mass of fuel (vegetation) per area which could combust in a wildfire[88]

Fuel management: Removing or thinning vegetation to reduce the potential rate of propagation or intensity of wildfires

Fuel moisture content: Amount of water in local biomass, divided into live fuels (living vegetation) and dead fuels (vegetation with no living cells)[89]

General Rate Case (GRC): Regulatory proceedings that authorize the amounts utilities can charge their customers for the cost to own, operate, and maintain their facilities[90]

Governor's Forest Management Task Force (FMTF): Task force focused the state's investments in forest health by increasing the rate of forest treatments and expanding state wood product markets through innovation, assistance, and investment

Governor's Office of Planning and Research (OPR): Statewide long-range planning agency

Governor's Strike Force: Group created in early 2019 to coordinate California's efforts relating to the safety, reliability, sustainability, and affordability of its energy supply, which issued recommendations in April 2019[91]

High Fire Threat District (HFTD): Per D.17-01-009, areas of the State designated by the CPUC and CAL FIRE to have elevated wildfire risk, indicating where utilities must take additional action (per GO 95, GO 165, and GO 166) to mitigate wildfire risk

Ignition probability: The relative possibility that an ignition will occur, probability is quantified as a number between 0% and 100% (where 0% indicates impossibility and 100% indicates certainty). The higher the probability of an event, the more certainty there is that the event will occur. (Often informally referred to as likelihood or chance)

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[87] United State Forest Service. "Fire Terminology." https://www.fs.fed.us/nwacfire/home/terminology.html.
[88] United State Forest Service. "Fire Terminology."
[89] United State Forest Service. "Fire Terminology."
[90] California Public Utilities Commission. "Electric Utilities Rates & Costs." https://www.cpuc.ca.gov/General.aspx?id=6276.
[91] Office of the Governor of California. *Wildfires and Climate Change: California's Energy Future*.

Lagging indicator: An indicator whose movement follows that of the principal risk (e.g., an increase in a lagging indicator follows an increase in wildfire risk)

Leading indicator: An indicator whose movement anticipates that of the principal risk

Office of Energy Infrastructure Safety (OEIS): An office that will be established as of July 1, 2021 ~~within~~ under the CNRA, per Assembly ~~S~~Bill 111 and Assembly Bill 1054, and will be formed ~~from~~ out of the ~~current~~ Wildfire Safety Division currently within the CPUC.

Prevention: Actions and strategies to reduce the risk of a utility-related wildfire

Propagation: Fire spread after ignition

Public Safety Power Shutoff (PSPS): Pre-emptive de-energization of utility circuits

Recovery: Community and housing recovery following a wildfire, including rebuilding of critical infrastructure and economic development

Renewables Portfolio Standard (RPS): The percentage of electricity procured by a utility that comes from generation other than nuclear, hydroelectricity, and combustion (non-cogeneration, above 30 MW)[92]

Response: Detection of a wildfire, as well as activities to suppress the wildfire and protect lives, structures, and economic and environmental assets

Risk-maturity: Sophistication with which stakeholders diagnose and mitigate risks, as well as the stakeholders' effectiveness in reducing the overall risk level

Santa Ana Wildfire Threat index (SAWTI): A relative metric predicting the intensity of Santa Ana winds in Southern California and the probability that they will lead to a wildfire

Situational awareness: Ability to anticipate, detect, and forecast wildfire propagation

Small and Multi-Jurisdictional Utilities (SMJUs): Regulated utilities other than PG&E, SCE, and SDG&E, many of which are also regulated in other states

State Responsibility Areas (SRA): Lands exclusive of cities and federal lands regardless of ownership, in which the primary financial responsibility for preventing and suppressing fires is that of the state, and which is not desert land,[93] totaling 31 million acres[94]

Suppression: Extinguishing or containing a fire, beginning with its discovery[95]

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[92] Crume Christina and Lynette Green. *Renewables Portfolio Standard Eligibility*. California Energy Commission, January 2017. https://efiling.energy.ca.gov/getdocument.aspx?tn=217317.
[93] California Department of Forestry and Fire Protection. "Wildfire Hazard Real Estate Disclosure." https://frap.fire.ca.gov/frap-projects/wildfire-hazard-real-estate-disclosure/.
[94] California Department of Forestry and Fire Protection. *CAL FIRE at a Glance*. September 2018. https://www.fire.ca.gov/media/4922/glance.pdf.
[95] United States Forest Service. "Fire Terminology."

System Average Interruption Duration Index (SAIDI): System-wide total number of minutes per year of sustained outage per customer served[96]

System hardening: Upgrading utility equipment to reduce the chance that it ignites a wildfire

United States Forest Service (USFS): An agency of the United States Department of Agriculture that manages 20 million acres of land in California[97]

Utility-related wildfire: Wildfires caused by utility infrastructure, including all wildfires determined by the Authority Having Jurisdiction (AHJ) investigation to originate from ignition caused by utility infrastructure

Utility Wildfire Mitigation Maturity Assessment: A tool to assess maturity of utility wildfire mitigation capabilities and practices, to establish a baseline, track development over time, and identify best practices

Vegetation management: Trimming and clearance of trees, branches, and other vegetation that poses the risk of contact with electric equipment

Wildfire: A fire that ignites and spreads over undeveloped (wildland) terrain

Wildfire Mitigation Plan (WMP): A filing by utilities with the CPUC outlining planned investments and operational activities to mitigate wildfire risk

Wildfire risk: The potential for the occurrence of a wildfire event expressed in terms of a combination of various outcomes of the wildfire and their associated probabilities

Wildfire Safety Advisory Board (WSAB): Committee advising the WSD on wildfire safety and mitigation performance, including plans written by utilities, so they can develop an appropriate scope and process for assessing the safety culture of an electric utility[98]

Wildfire Safety Division (WSD): A new division of the CPUC focused on regulating utilities' mitigation of their wildfire risk

Wildland-urban interface (WUI): Any area where humans and their development meet or intermix with wildland fuel[99]

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[96] Pacific Gas and Electric. "Electric Reliability Reports." 2019. https://www.pge.com/en_U.S./residential/outages/planning-andpreparedness/safety-and-preparedness/grid-reliability/electric-reliability-reports/electric-reliability-reports.page.
[97] United States Forest Service. "Ecological Restoration and Partnerships—Our California Story." https://www.fs.usda.gov/detail/r5/landmanagement/?cid=stelprdb5412095.
[98] Office of Governor Gavin Newsom. *Governor Newsom Announces California Wildfire Safety Advisory Board and California Catastrophe Response Council Members.* October 30, 2019. https://www.gov.ca.gov/2019/10/30/governor-newsom-announces-californiawildfire-safety-advisory-board-and-california-catastrophe-response-council-members/.
[99] Stein, Susan, et al. *Wildfire, Wildlands, and People: Understanding and Preparing for Wildfire in the Wildland-Urban Interface.* USDA, January 2013. https://www.fs.fed.us/openspace/fote/reports/GTR-299.pdf.

Attachment 13:

Malinda Dickenson Resume

Malinda R. Dickenson

4452 Park Boulevard #202 ▪ San Diego, CA 92116
malinda@protectourcommunities.org ▪ (858) 521-8492

PROFESSIONAL HISTORY

General Counsel: The Protect Our Communities Foundation 11/2019 – present
Direct all legal work and strategy. Represent the interests of San Diego and Southern California residential utility ratepayers in proceedings before the Public Utilities Commission, other regulatory bodies and the courts. Advocate for cleaner, sustainable and effective energy and environmental solutions; for just and reasonable rates; and for fair, reasonable, and responsible energy practices, policies, rules, and laws. Support and advance local power and the San Diego region's clean energy future.

Principal: Law Office of Malinda R. Dickenson 11/2010 – 11/2019
Managed all aspects of law practice focused on land use, environmental, real estate, civil rights, and consumer protection matters. Advocated before administrative, legislative, and judicial decision-makers. Secured judgments, writs of mandate. Handled successful climate change CEQA case from administrative process through trial court proceedings, appeal, and answer to petition for review. Negotiated settlement agreements and resolved various lawsuits in both state and federal courts via alternative dispute resolution processes. Prepared documents for presentation to clients, mediators, experts, courts, public officials. Consulted on real estate and land use matters.

Attorney: Andersen Mann Hilbert & Parker, LLP 6/2009 – 11/2010
Primary responsibility for handling litigation matters in predominantly real estate and insurance defense practice. Analyzed, prosecuted, and defended numerous title and escrow disputes. Defended coordinated class actions. Advised affordable housing developer regarding development impact fees and special taxes.

Deputy City Attorney: City of San Diego 6/2006 – 6/2009
Land Use Litigation Unit, Civil Litigation Division:
Defended and prosecuted real property, land use, environmental, and related civil litigation, from inception of lawsuit through trial. Secured dismissals and judgments. Negotiated, prepared, sought approval for, and enforced settlement agreements. Provided legal advice and recommendations on litigation specific issues. Prepared memoranda, reports, resolutions, and supporting materials for presentation at meetings and public hearings. Engaged various stakeholders and community groups to build consensus and facilitate dispute resolution.
General Trial Unit, Criminal Division: Prosecuted misdemeanors.

Attorney: Worden Williams, APC 6/2000 – 6/2006
Transactional and litigation practice involved public agency, land use, real estate, and environmental matters. Argued successful petition for writ of administrative mandamus upholding citizens' initiative measures. Prepared comment letters and testified at administrative hearings on issues such as conditional use permits, zoning amendments, general and specific plan amendments, development agreements and other entitlements, environmental impacts, and endangered species. Provided transactional advice on matters including commercial and residential leases, licenses, easement agreements, and purchase and sale agreements. Clerked during law school and promoted to attorney upon admission to the bar.

Malinda R. Dickenson
4452 Park Boulevard #202 ▪ San Diego, CA 92116
malinda@protectourcommunities.org ▪ (858) 521-8492

EDUCATION

University of San Diego School of Law, Juris Doctor, May 2002
University of California at Santa Barbara, B.A., English, June 1999
Prof. Robert-Delores Simmons Award for Excellence in Environmental Law Practice, 2002
Highest Grade, *Environmental Law Clinic*, Fall 2000, Spring 2001, Fall 2001
Honors, *Lawyering Skills Legal Research & Writing,* 1999; *Lawyering Skills Oral Advocacy,* 2000
President, *Environmental Law Society*, USD, 2000-2001
Summer Intern, Natural Resources Defense Council, 2001.

ADMISSIONS

Supreme Court of the State of California, admitted December 4, 2002
United States District Court, Southern District of California
United States District Court, Central District of California
United States District Court, Northern District of California
United States Court of Appeals for the Ninth Circuit
United States Court of Appeals for the Federal Circuit

Attachment 14:

Julia Severson Resume

Julia Severson

(858) 922-1133 | julia@protectourcommunities.org
www.linkedin.com/in/juliaseverson

. EDUCATION .

University of Redlands 2018 - 2020

Bachelor of Arts in Philosophy with minor in Spanish GPA: 3.781

- Advanced Seminar in Philosophy Thesis: "Language, Representationalism, and Non-Human Animals' Beliefs"
- Concentration in biomedical ethics, environmental ethics, and animal welfare ethics and policy.
- Dean's List Fall 2018, Spring 2019, Spring 2020
- Omicron Delta Kappa National Leadership Honor Society March 2019 – December 2020
- National Society of Leadership and Success September 2020 – December 2020

University of Oregon 2016 – 2018 GPA: 3.55

- Dean's List Winter 2018

. EMPLOYMENT .

Protect Our Communities Foundation June 2020 - Present

Advocate San Diego, CA

- Actively participate in proceedings at the California Public Utilities Commission (CPUC) by compiling data to be utilized in filings, tracking deadlines and relevant rules, and attending workshops and Commission meetings.
- Assists participation in legal proceedings and court cases by conducting legal research, reviewing legal citations, managing documents and exhibits, and providing support with filings.
- Write research memos to inform team members' work in CPUC proceedings.
- Analyze decisions and fulfill intervenor compensation requests to be submitted to the CPUC.
- Provide public comment at City Council, Committee, and Board meetings.

. LEGAL EXPERIENCE .

Summer Pre-Law Intern June 2019 – August 2019

Center for Public Interest Law (CPIL) University of San Diego School of Law

- Researched and analyzed proposed and approved state legislation that affected the Bureau for Private Postsecondary Education.
- Drafted a report on Vertical Enforcement practices in the Medical Board of California for CPIL attorneys to utilize in correspondence by tracking changes in legislation and enforcement statistics and analyzing enforcement program summaries presented in board and committee meetings.
- Edited the *California Regulatory Law Reporter* and other pieces for publication.
- Drafted a report on the Department of Business Oversight for law students that work with the center about proposed legislation that affected them and what they regulate.
- Researched grants for the CPIL office to apply for to gain funds for advocacy efforts.

Summer Intern June 2018 - August 2018

Aguirre & Severson LLP San Diego, CA

- Conducted legal research of cases and statute using LexisNexis.
- Collaborated with lawyers and clerks about the significance of research findings to aid in the development of motions.
- Prepared files and evidence from fact investigation for use at hearings and client meetings.
- Developed a new website platform for the firm in order to promote easier methods of contact and expose relevant media.

. PUBLICATIONS .

Editorial Assistant

- Robert C. Fellmeth, R. (Spring 2019). *California Regulatory Law Reporter*. San Diego, CA. Center for Public Interest Law University of San Diego School of Law.

. LEADERSHIP EXPERIENCE .

Associated Students of the University of Redlands (ASUR) Redlands, CA

Judicial Chair April 2019 – April 2020

- Lead the Judicial Council to actively interpret and revise the ASUR constitution to ensure it best represented the student body.
- Acted as the Director of the Clubs and Organizations Advisory Board (COAB) to guide the creation of new organizations, present and approve new club constitutions with ASUR Senate, and regulate funds distributed to all clubs and organizations on campus.
- Organized annual presidential and senatorial elections through advertising, facilitating a presidential debate, hosting information sessions, and implementing an online voting platform for all University students.
- Organized the annual COAB Awards and the bi-annual event for clubs regarding funding, programming, and site management.
- Constructed the first ASUR Judicial Chair Annual Report and made it available to the University student body, faculty, and administration.

Presidential Cabinet Member April 2019 – April 2020

- Actively worked alongside the ASUR President Elect and other cabinet members to resolve issues on campus regarding diversity, inclusion, sustainability, and more.
- Advised the ASUR President on financial, academic, social, and administrative issues.
- Represented student interests to University administration, faculty, and staff regarding academics, social life, student life, and University policies.
- Planned campus projects that have included renovations of spaces, investments into mental health initiatives, and sustainable practices with the University food provider.

Judicial Council Member September 2018 - March 2019

- Reviewed and revised the Presidential and Senatorial Elections Code of the ASUR Constitution with regards to advertising and engagement.
- Assisted in the presidential debate by developing debate topics and setting up the event.
- Advertised presidential and senatorial elections through tabling and media distribution.

Club and Organization Advisory Board (COAB) Member September 2018 - March 2019

- Aided in organizing the annual COAB Awards Banquet to honor students, advisors, and organizations through researching and selecting qualified candidates across the campus.
- Proposed revisions of prospective organizations' constitutions with the Judicial Chair and other members of COAB.
- Reviewed applications for club funding and voted on clubs and organizations' operational budgets.

University of Redlands Women's Club Soccer September 2018 – April 2020

Head of Fundraising, Defender

- Coordinated fundraisers with vendors to raise funds for uniforms, referees, and travel.
- Advertised fundraisers to the community on and off campus to attract the greatest possible attendance.

. SKILLS .

- Moderate proficiency in reading, writing, and speaking Spanish.
- Proficient in Microsoft Office, including Excel, PowerPoint, and Word.
- Have public speaking experience in front of crowds exceeding 200 attendees.
- Strong writer of informational and persuasive pieces.

Attachment 15:

Time Sheet and Categorization

The Protect Our Communities Foundation
Request for Intervenor Compensation for Contribution to
Resolution WSD-011 and Resolution WSD-012

Issue	%	Description
C	40%	Compliance
S	25%	Statutory Requirements
H	25%	Historical Context
G	10%	General Participation
	100%	
IC	N/A	Intervenor Compensation

Person	Date	Issue	Total	Description
Malinda Dickenson	2020-06-09	CSHG	3.00	Review WSAB draft 2021 recommendations; outline comments
Malinda Dickenson	2020-06-11	CSHG	4.00	Draft comments on WSAB 2021 recommendations
Malinda Dickenson	2020-06-11	CSHG	1.00	Review WSD's proposed strategic roadmap
Malinda Dickenson	2020-06-12	CSHG	5.30	Continue drafting comments on WSAB 2021 recommendations
Malinda Dickenson	2020-06-14	CSHG	1.50	Continue drafting comments on WSAB 2021 recommendations
Malinda Dickenson	2020-06-15	CSHG	8.00	Continue drafting comments on WSAB 2021 recommendations
Malinda Dickenson	2020-06-29	CSHG	6.80	Outline comment letter; draft comments on WSD's strategic roadmap
Malinda Dickenson	2020-06-30	CSHG	8.60	Continue drafting comments on WSD's strategic roadmap
Malinda Dickenson	2020-07-29	CSHG	1.00	Analyze sufficiency of SDG&E Remedial Compliance Plan
Malinda Dickenson	2020-08-05	GP	0.50	Phone call with Public Advocates Office
Malinda Dickenson	2020-08-09	CSHG	2.00	Draft comments on SDG&E's Remedial Compliance Plan
Malinda Dickenson	2020-08-10	CSHG	5.00	Continue drafting comments on SDG&E's Remedial Compliance Plan
Malinda Dickenson	2020-08-25	CSHG	2.50	Analyze staff report proposal, safety culture proposal, WSAB proposal
Malinda Dickenson	2020-08-25	CSHG	4.00	Draft comments on staff proposal, safety culture proposal, WSAB proposal
Malinda Dickenson	2020-08-26	CSHG	7.00	Continue drafting comments; incorporate edits
Malinda Dickenson	2020-09-14	CSHG	0.10	Review WSD enforcement division notice of workshop
Malinda Dickenson	2020-09-17	CSHG	0.10	Review email, voice message from Christopher Meyer of WSD compliance division
Malinda Dickenson	2020-09-18	CSHG	1.00	Phone calls with Bill and Loretta; phone call with Christopher Meyers of WSD; notes re same
Malinda Dickenson	2020-09-18	CSHG	1.00	Analyze WSD proposal and related statutes
Malinda Dickenson	2020-09-21	CSHG	0.30	Strategy call with team re workshop; email to Christopher Meyers confirming attendance
Malinda Dickenson	2020-09-26	CSHG	1.20	Prepare for workshop
Malinda Dickenson	2020-09-27	CSHG	2.00	Prepare for workshop
Malinda Dickenson	2020-09-28	CSHG	0.50	Phone call with Christopher Meyer
Malinda Dickenson	2020-09-28	CSHG	2.50	Prepare for workshop
Malinda Dickenson	2020-09-29	CSHG	1.50	Prepare for workshop
Malinda Dickenson	2020-09-29	CSHG	1.50	Attend workshop
Malinda Dickenson	2020-10-02	CSHG	3.50	Draft and revise comments on compliance process
Malinda Dickenson	2020-10-25	CSHG	2.50	Review draft resolutions WSD-011 and WSD-012
Malinda Dickenson	2020-10-26	CSHG	0.30	Review email re opportunity to present at CPUC Wildfire Meeting and email to team

Malinda Dickenson	2020-11-01	CSHG	1.00	Continue analysis of and draft comments to Draft Resolution WSD-012
Malinda Dickenson	2020-11-01	CSHG	4.50	Continue analysis of and draft comments to Draft Resolution WSD-011
Malinda Dickenson	2020-11-02	CSHG	9.00	Continue analyzing and drafting comments to Draft Resolution WSD-011
Malinda Dickenson	2020-11-03	CSHG	4.00	Continue analyzing and drafting comments to Draft Resolution WSD-012
		Total	96.70	

Person	Date	Issue	Total	Description: Prepare Intervenor Comp. Application
Julia Severson	1/6/2021	IC	2.10	Review resolutions, drafts, comments, and other documents related to claim
Julia Severson	1/7/2021	IC	2.20	Continue analyzing documents; outline substantial contribution section, update claim information
Julia Severson	1/13/2021	IC	8.20	Draft claim
Julia Severson	1/20/2021	IC	1.50	Revise draft substantial contribution section
Julia Severson	1/21/2021	IC	2.50	Continue revising draft substantial contrinbution section
		Total	16.50	

Person	Date	Issue	Total	Description: Prepare Intervenor Comp. Application
Malinda Dickenson	2021-01-21	IC	0.40	Email correspondence with Icomp coordinator re process for WSD related claims; phone call with Maria Vengerova re filing in R.18-10-007
Malinda Dickenson	1/22/201	IC	4.00	Edit claim
		Total	4.40	