

**Guidance Advisory Opinion
for the 2022 Wildfire
Mitigation Plans of Electric
Publicly Owned Utilities and
Rural Electric Cooperatives**





California Wildfire Safety Advisory Board Guidance Advisory Opinion for the 2022 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electrical Cooperatives

California Wildfire Safety Advisory Board

The Board is comprised of seven members with expertise in a variety of utility wildfire topics, appointed by the Governor and branches of the Legislature. Each board member brings a unique perspective and expertise to the state and to their review of the POU Wildfire Mitigation Plans (WMPs).¹ Additional information about the Board and its members can be found on its website: www.cpuc.ca.gov/WSAB. The Board members are²:

- Jessica Block, Chair
- Diane Fellman, Vice Chair
- Chris Porter
- Ralph Armstrong, Jr.
- John Mader
- Alexandra Syphard

Acknowledgements

The 2021 wildfire season in California has caused significant damage throughout California, particularly in the northern part of the State. A record amount of acreage burned, affecting community members, firefighters, civil service members throughout a plethora of agencies, utility workers, California's diverse flora and fauna, and many more to varying degrees. For the first time in California history, wildfires burned East across the top of the Sierra mountain range.

The California Wildfire Safety Advisory Board is responsible for reviewing the WMPs of the State's Electric Publicly Owned Utilities' and Cooperatives' (together, POUs) and providing advisory guidance about improvements to those WMPs. This document fulfills that responsibility for the POUs 2021 WMPs.

¹ The Board approves these recommendations, but each recommendation may not reflect the views of individual board members.

² There is one vacancy on the Board.



We appreciate the efforts that went into to developing these and the previous year's WMPs. The Board looks forward to continued collaboration with the POU community and their representatives on this document and future WMP reviews.

Over the past seven months the Board has relocated within State Government to the California Natural Resources Agency (CNRA) and hired new staff. We express our appreciation to the Office of Energy Infrastructure Safety's (OEIS) Director Caroline Thomas-Jacobs and Deputy Director Melissa Semcer, who made the transition as seamless as possible and assisted in hiring and other logistical aspects of the transition (OEIS has also transitioned from the Wildfire Safety organization at the California Public Utilities Commission to CNRA).

We want to particularly acknowledge the dedication, creativity and project management of our newly hired advisors and staff, Timothy Tutt and Teresa Graber, who hit the ground running at full speed.



TABLE OF CONTENTS

Introduction	1
Background.....	2
1. Plan Structure, Staffing, and Evaluations	5
A. Context Setting Information.....	5
B. General WMP Objectives	6
C. Staff Responsibilities and Approval Protocols.....	7
D. Metric Development and Evaluation.....	8
E. Independent Evaluations	9
2. Grid Design, System Hardening, Operations and Inspection	11
3. Risk Assessment and Mapping	13
4. Vegetation Management and Inspections	15
5. Community Communication, Outreach, Emergency Preparedness and Recovery	17
6. Conclusion	19
APPENDIX 1.....	A1-1
APPENDIX 2.....	A2-1
APPENDIX 3.....	A3-1
APPENDIX 4.....	A4-1

Introduction

Reviewing the publicly owned utilities POU's WMPs and providing advisory guidance on those plans are central responsibilities of the California Wildfire Safety Advisory Board (Board). In 2020, with no instructive precedent or guidance, we met our statutory responsibilities through the *Guidance Advisory Opinion on the 2021 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Cooperatives* (December 2021)³. In 2021, we continued to maintain the Board's independent voice in the face of moving to a new umbrella agency and its with new support and public interaction structures along with a completely new Board staff.

We want to again express our appreciation for the contribution and cooperation from the publicly owned utilities and electric cooperatives through their representative organizations: California Municipal Utilities Association, Southern California Public Power Authority, Northern California Power Agency, and the Golden State Power Cooperative. We view continued collaboration with these organizations as essential to allow the Board to meet its statutory responsibilities while being comprehensive, efficient, and respectful of the POU community's unique status.

This second round of WMP review has been a continuing education for us all. In this 2022 Guidance Advisory Opinion, we offer our recommendations for the next round of submittals, starting with the 2022 WMP updates, that will assist in clarifying information that we deem essential for assessing and managing wildfire threats and mitigation measures.

We also continue to acknowledge the distinctions among the POU entities that can permit refinement in WMP contents for the future, within the statutory requirements. The Board looks forward to receiving WMP updates that incorporate the guidance provided here and in our previous 2021 Guidance Advisory Opinion. We offer these recommendations to the POU community to achieve the most effective and appropriate wildfire mitigation measures and strategies for their service territories and customers.

Background

Assembly Bill (AB) 1054 (Holden, 2019) created the California Wildfire Safety Advisory Board (the Board or WSAB). Per AB 1054, which added Public Utilities Code Section 326.2(c), the Board is required to provide advisory opinions to Publicly Owned Electric Utilities and Rural Electrical Cooperatives (together, POUs) regarding their Wildfire Mitigation Plans (WMPs).

The Board emphasizes that its independent, advisory role is distinct from a regulatory role. Our expertise is to “guide” and “advise” POUs towards specific actions. Only the governing boards and councils can direct actions. Nevertheless, we take our responsibility seriously, and encourage POUs to also respect the expertise that leads to our guidance recommendations. Our shared goal is to appropriately minimize wildfire and related risks in the POU service areas and the State.

The following areas are the required elements of POU WMPs per PUC Code Section 8387(b), enumerated in AB1054². Our intent in reviewing WMPs in the context of these elements is to identify exemplary practices and to recommend essential additional information requested for future WMPsubmittals by the POUs.

Table 1: List of Statutory Responsibilities

A	Staff responsibilities	G	Community notification	L	Identify enterprise-wide risk
B	General objectives	H	Vegetation management	M	Restoration of service
C	Program descriptions	I	Infrastructure inspections	N(i)	Monitoring & auditing of WMPs
D	Evaluation metrics	J(i)	Grid design, construction & operation risks	N(ii)	Identifying and correcting deficiencies
E	Lessons learned, metrics application	J(ii)	Vegetation, topographic, & climate risks	N(iii)	Monitoring asset inspections
F	Protocols for reclosers, de-energization, and PSPS mitigation	K	Identification and expansion of higher wildfire threat areas		

The Board and staff reviewed the 2021 WMPs that were received from the 50 POUs listed in the following table, along with supplemental informational responses and

“change” filings received per the Board’s request from some, but not all POU’s. Individual observations and recommendations for each of the 50 POU’s that submitted 2021 WMPs can be found in Appendix 2.

List of Publicly Owned Utilities with 2021 WMPs Reviewed by the Board

Alameda Municipal Power	Lassen Municipal Utility District	Redding Electric Utility
Anaheim Public Utilities	Lathrop Irrigation District	Riverside Public Utilities
Anza Electric Cooperative	Lodi Electric Utility	Roseville Electric Utility
Azusa Light and Water	City of Lompoc	Sacramento Municipal Utility District
City of Banning	Los Angeles Department of Water and Power	San Francisco Public Utilities Commission
City of Biggs	Merced Irrigation District	City of Shasta Lake
Burbank Water and Power	Modesto Irrigation District	Silicon Valley Power (Santa Clara)
Cerritos Electric Utility	Moreno Valley Utility	Port of Stockton Utility
City of Colton Electric Department	City of Needles	Surprise Valley Electrification Corporation
City of Corona	Northern California Power Agency	Transmission Agency of Northern California
Eastside Power Authority	Port of Oakland	Trinity Public Utility District
Glendale Water and Power	Palo Alto Utilities	Truckee Donner Public Utility District
City of Gridley	Pasadena Water and Power Department	Turlock Irrigation District
Healdsburg Electric Department	Pittsburg Power Company	City of Ukiah
Imperial Irrigation District	Plumas-Sierra Rural Electric Cooperative	City of Vernon
Kirkwood Meadows Public Utility District	Power and Water Pooling Authority	City of Victorville
	Rancho Cucamonga Municipal Utility	

The Board's review of the second round of POU WMPs reinforced the striking differences among POUs, who have a variety of characteristics that affect their wildfire risk profile, at times dramatically. In its advisory and guidance role, the Board observed that service territory qualities may at some point allow different kinds of reporting in the WMPs. The Board notes that approximately half of the reporting POUs have a relatively low likelihood of seeing or causing catastrophic wildfires in their service areas; due to characteristics such as the small size of their service area (an attribute perhaps insufficient in itself to lower threat), a service territory that is mostly if not wholly urban with no HFTD areas within or abutting, assets that are wholly or primarily undergrounded, or a combination of these. Some POUs are surrounded by lower-threat agricultural or desert land areas or substantially abut bodies of water.

The Board expects to engage with the POUs, associations, and other stakeholders to tailor future WMP filings to be more appropriate in scope to the likelihood of wildfires in those areas, particularly for those POUs with lower probability. At the same time all POUs should take their WMP duties seriously and provide thoughtful descriptions and analysis of the risks that are present within their agency to help the Board better understand each utilities' situation. The Board notes from reviewing the 2021 WMPs that some POUs are not carefully writing or updating their WMPs, leaving text that makes little sense or clearly should have been updated, even if with a minor edit. In addition, situations are not always as clear as it may seem from the WMP. For example, consider a utility with undergrounded lines that uses external above-ground transformers (ground mounted boxes) and which is bordered by or mostly upwind of a HFTD in a neighboring utility's service territory. While this utility could be seen as having a low wildfire likelihood in their territory, that utility should consider the risk of its infrastructure failing and causing an ignition in the neighboring territory.

This 2022 Guidance Advisory Opinion is organized as follows. In the main body of the document there are the following sections containing thematic or general observations and recommendations:

- 1. Plan Structure, Staffing, and Evaluations**
- 2. Grid Design, System Hardening, Operations and Inspections**
- 3. Risk Assessment and Mapping, Risk Spend Efficiency**
- 4. Vegetation Management and Inspections**
- 5. Community Communication, Outreach, Emergency Preparedness and Recovery**
- 6. Conclusion**

Following those sections is a conclusion and several Appendices (with Appendix 2 containing the individual POU observations and recommendations).

1. Plan Structure, Staffing, and Evaluations

A. Context Setting Information

In the Board's 2021 Guidance Advisory Opinion, the Board recommended use of an upfront template containing key information about a utility's service area, including size, number of customers, type of customers, basic topography and weather data, asset mix (in terms of underground versus overhead lines), and interaction with High Fire Threat Districts (HFTD) and Public Safety Power Shutoffs (PSPS).

In 2021 WMPs and in informational responses to the Board's recommendations in the 2021 Guidance Advisory Opinion, many POUs, but not all, provided information in the Board's proposed template (see Appendix 3). In some cases, this template was integrated into the 2021 WMP at the beginning, as requested; in others it was included as an Appendix to the WMP or in a separate informational response.

The Board reiterates that future WMPs should have an increased level of transparency and information accessibility for public consumption, which includes providing information at the beginning of the WMP regarding each POUs risk profile. In addition, the Board recommends that WMP information, including any earlier WMPs, Independent Evaluation Reports, and supplemental filings, as appropriate, has a prominent and easily locatable web-based publication location. Per the 2021 Guidance Advisory Opinion and reiterated here: "Context setting is important." The Board believes the context information received has been very helpful for WMP review and welcomes any comments about template changes that would improve the information going forwards.

TANC's 2021 WMP and related information are comprehensive and prominently found on their website, including surrounding text and links to the historical 2020 WMP and the 2019 Independent Evaluation report, all clearly laid out and easy to find.

Many informational responses also included the Board-requested cross-reference table showing where each of the statutory requirements was covered in the utility's WMP. The number of POUs that also included such a cross-reference table within their 2021 WMPs increased from the 2020 filings. The Board appreciates such inclusion, with live links from table to section if appropriate.

Given the challenge of reviewing 50 or more POU WMPs and related filings and information, the Board would appreciate greater consistency amongst filings, providing a context template and statutory cross-reference table near the front of the WMPs, as opposed to separate filings or in WMP Appendices. This would seem to the

Board to be a simple request, not requiring substantial data-gathering or development work in general.

The Board recognizes that timing considerations may make this request somewhat problematic, as some POUs have already filed or have substantially developed their WMPs. In these cases, the Board would request revised WMPs or supplemental filings by July 1st, 2022, if necessary, but in future WMPs would like to see the requested information provided in an integrated fashion in the WMPs.

B. General WMP Objectives

PUC Section 8731 (b)(B) requires inclusion in the POU WMPs of a description of the objectives of the plan. Most POUs included two general objectives: 1) Minimizing Sources of Ignition; and 2) Improving the Resiliency of the Grid. The Board believes that these are valid objectives but that they could lead to constrained thinking about wildfire risks by the utility. Clearly, the focus of wildfire strategies for utilities is the grid assets in general, but the broader concern and broader objective is simply reducing the risk of catastrophic wildfires. This line of thinking may result in more strategic investment in what happens once a source starts a wildfire – how does the fire spread from that source and what are the societal damages caused. Even if ignition sources are minimized, remaining ignitions may still spread because there is abundant fuel available due to poorly maintained vegetation, low-moisture content in that vegetation, or both. There may also be more thought about reducing widespread damage even if a fire spreads, through building hardening and other strategies.

Glendale has done an outstanding job of describing the objectives in their WMPs, including an overall mission of minimizing the risk of catastrophic wildfire. Glendale's "wildfire = ignition X spread" approach places the focus of efforts on more than just utility-caused ignitions to include what happens after any ignition to potentially cause a catastrophic wildfire.

The Board encourages the POUs, particularly in the upcoming comprehensive WMP revisions, to question whether broader thought and strategies may be appropriate going forward. Once the appropriate source minimization actions are accomplished for a POU – strategic undergrounding, fuse replacement with non-expulsion fuses, pole replacements, replacement of standard lightning arrestors with CALFIRE approved equipment, ensuring fault duty capabilities of equipment exceeds fault amplitudes, elimination of tree attachment construction, etc. – attention must still be paid to ongoing vegetation management and how that is best accomplished and customer interactions to mitigate the impacts of any wildfire that yet gets triggered (in collaboration with and deference to existing emergency communication protocols).

The Board encourages the POUs, particularly in the upcoming comprehensive WMP revisions, to question whether broader thought and strategies may be appropriate going forward. Once the appropriate source minimization actions are accomplished for a POU – strategic undergrounding, fuse replacement with non-expulsion fuses, pole replacements, replacement of standard lightning arrestors with CALFIRE approved equipment, ensuring fault duty capabilities of equipment exceeds fault amplitudes, elimination of tree attachment construction, etc. – attention must still be paid to ongoing vegetation management and how that is best accomplished and customer interactions to mitigate the impacts of any wildfire that yet gets triggered (in collaboration with and deference to existing emergency communication protocols).

While the comprehensive revisions may be where these thoughts get full attention, the Board encourages POUs to start along this path as feasible in their 2022 WMP updates.

C. Staff Responsibilities and Approval Protocols

In the 2021 Guidance Advisory Opinion, the Board requested that future WMPs include a small amount of additional context information regarding public input and approval processes for each utility. PUC Section 8387(b)(3) states that the utilities must conduct a public process on the WMPs and verify compliance with the requisite legal requirements. The Board recognizes that POUs have various structures and approval processes but believes that a simple description of those should be feasible for all POUs. In addition, the Board expects that the approval process would generally incorporate budget or funding approval that is needed to complete any mitigation work described in a WMP, along with any costs for preparation of the WMPs themselves.

Many POUs included additional public process information in their 2021 WMPs or, in most cases, in the separate informational responses filed. The Board would appreciate short additional context-setting detail regarding how utilities approach WMP approval, consideration of public comment on WMPs, and budgetary protocols for mitigation and WMP tasks (which may likely be different than the WMP approval process itself). The Board recognizes that approval processes may differ among POUs, from Board to executive levels and again, only a small paragraph is requested.

Truckee Donner has a very clear and comprehensive description in the 2021 WMP of the adoption and public comment procedures followed as the WMP is developed and presented to Truckee Donner's Board.

The Board prefers that this information be integrated into the WMP itself, likely in the statutory staff responsibilities section, but again recognizes that timing considerations may make this request somewhat problematic, as some POUs have already filed or have substantially developed their WMPs. In these cases, the Board would request revised WMPs or supplemental filings by July 1st, 2022, if necessary, but in future WMPs would like to see the requested information provided in an integrated fashion in the WMPs.

D. Metric Development and Evaluation

Public Utilities Code Section 8387(b)(2)(D) directs POU to include in their WMPs -“a description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan’s performance and the assumptions made that underlie the use of those metrics.” The Board has observed a relatively common theme for this section of POU WMPs, in which the majority of POU WMPs state use of two basic metrics: 1) fire Ignitions; and 2) wires down.

The Board agrees that these are reasonable metrics in general, with fire ignitions being a “lagging” metric documenting fires that have occurred (though may or may not have resulted in a significant wildfire incident) while wires down can be thought of as a sort of “leading” metric – events that could lead to ignitions and thus wildfire incidents. The Board questions, however, whether individual POU, with the significant variation in circumstances they reflect, may have adopted these metrics in their WMPs without sufficient thought about what metrics may apply best in their service territories. For example, some POU with substantial, even 100%, undergrounded lines still include the “wires down” metric in their WMPs, which is clearly not relevant or applicable to their situation.

Some POU provided performance metrics in addition to “outcome” metrics like fires ignited and wires down. These, for example, tracked measures such as achieving system inspection and vegetation management goals for the year. These are clearly “leading” metrics in the sense that they track actions under POU control that precede and reduce

Anaheim has provided an excellent selection and description of comprehensive tracking metrics to assess progress on mitigation of wildfire risks, including seven “incident” metrics (reportable fire incidents comprise two of those) as well as 18 performance metrics (from training to vegetation management). Anaheim’s graphical presentation of metric results in 2020 is well done.

Burbank and Glendale also provided exemplary discussions of metrics in their WMPs. Glendale has a solid plan for evaluation of metric results, including questioning whether a metric is truly useful if it is achieved too easily.

The Board appreciated the excellent metrics presentation in SMUD’s WMP and the additional separate metrics filing, from SMUD.

Turlock and Trinity also developed excellent metrics and provided very well done metric writeups in their WMPs.

probability of outcomes such as fire ignitions. These are also metrics that can be used by POU's that have primarily or entirely underground assets where "wires down" makes no sense – these POU's still must inspect on a scheduled basis that must be tracked. In some cases, POU's proposed a relative multitude of performance metrics and additional outcome metrics that could be considered by others.

In general, the Board supports including performance metrics where appropriate for POU's. The Board also supports rethinking or revising metrics that lack much meaning because they are easily achievable without effort ("wires down" for a 100% underground utility may be an example). Metrics should measure something that is helpful for progress when met as expected, and when not meeting the metric creates tension for improvement.

It is also true that even well thought out metrics may not provide helpful insight towards improvement if they are not well tracked. The Board observes that many POU's did not provide significant information about tracking the metrics established in their 2020 WMPs (even as these metrics did not change in the 2021 WMPs). The Board encourages more comprehensive and consistent metric tracking by the POU's.

E. Independent Evaluations

The Board reiterates that IE Reports should serve as a helpful tool for POU's to improve wildfire mitigation planning. Fewer than 20% of the POU's provided IE Reports for the 2021 WMP cycle, with most resting on the laurels of the 2020 IE Reports. Many of these 2020 IE reports were simply a cursory review of whether a POU addressed the elements required by AB 1054, which provides little to no help with respect to improving wildfire mitigation planning. A few POU's appear to have not developed or contracted for an IE report for either the 2020 or the 2021 WMP cycle.

In the 2021 Guidance Advisory Opinion, the Board stated that in general IE Reports tended to be repetitive (across POU's) and general without fully addressing the specific POU's WMP. Again, the evaluator will not be providing additional benefit to the POU funding the evaluation unless the IE provides wildfire mitigation progress through a more robust analysis of each POU's specific plan. The Board believes it is beneficial, for review and wildfire mitigation progress, for IE Reports to address comparison to industry standards that are relevant and applicable to POU's and to make recommendations on how the POU should improve its WMP to robustly meet its statutory obligations. In future WMPs, and in particular for the upcoming comprehensive revisions, the Board recommends IEs perform a robust evaluation of the contents and substance of the POU's WMP, in comparison to relevant industry standards, and provides useful recommendations for wildfire mitigation Improvements where applicable.

It is also unclear in some cases whether the IE Reports had impact on or were intended to affect the WMP being evaluated or were considered evaluations pointing to wildfire mitigation revisions in future WMPs. The Board prefers that IE Reports be impactful for the WMP being reviewed, and encourages documentation of IE recommendations, WMP changes, and IE acceptance of those changes as adequate, as seen in some of the POU IEs and WMPs.

2. Grid Design, System Hardening, Operations and Inspection

In the 2021 Guidance Advisory Opinion the Board asked several questions to be answered in 2021 WMPs about system design and construction. Many POU's provided brief answers to these questions in their informational responses, rather than in the 2021 WMPs (as acknowledged, perhaps necessitated by timing). The Board still is interested in more detailed thought from the POU's on these questions, in the 2022 WMPs or the comprehensive revisions coming up. The specific questions are reiterated here for ease of reference:

BURBANK HAS PROVIDED AN EXCELLENT DESCRIPTION OF IMPLEMENTATION OF WILDFIRE MITIGATION STRATEGIES IN 2020, INCLUDING POLE, TRANSFORMER, AND FUSE REPLACEMENTS; COMPOSITE POLE INSTALLATION PILOTS; STEEL-REINFORCED ALUMINUM CONDUCTORS IN NEW CONSTRUCTION; AND ONGOING ENGINEERING STUDIES THAT WILL INFORM ADDITIONAL MEASURES SUCH AS RECLOSERS.

1. Are there design or construction issues related to the utility's specific topography or geographic location that the Board should be aware of?
2. How will the utility address risks associated with facilities requiring power that about a Tier 2 or Tier 3 HFTD?
3. How does the utility assess its risks associated with system design and construction?
4. In what areas does the utility consider going above and beyond G.O. 95 or other General Order standards related to design and construction?

In addition, the Board requested information about facilities that would not be directly subject to the protocols of the CPUC's G.O. 95 due to their construction prior to the G.O. first being adopted. The Board expects that the G.O. 95 protocols, or similar standards, are generally applied to these older lines, as they also present wildfire safety hazards in some areas. The Board is still looking for more

complete information about how POU's, some of which became utilities over 100 years ago and have assets that pre-date the adoption of G.O. 95, are including these older assets in their WMPs and safety protocols equivalently or in a different fashion to newer lines that would be subject to G.O. 95 protocols.

The Board observes that in general POU's state in their WMPs that they "meet or exceed" the inspection standards in the CPUC's General Order (G.O.) 95. What has not been clear for each POU is whether the individual POU is observing the minimum standards set in G.O. 95 or, if the wildfire circumstances merit it, exceeding those standards. A statement that the POU "... meets or exceeds ..." does not clearly

distinguish between these two cases. The Board generally expects that POU's are and will at least follow the standards in G.O. 95, so stating that provides little grist for the Board's review other than verification of that standard. What the Board would like to understand in future WMPs is whether any specific POU goes beyond the G.O. 95 minimum standards, and how and why they do so. The Board would also like information about any circumstances where the G.O. 95 standards are not followed, and what replaces them and why.

Finally, in the 2021 Guidance Advisory Opinion the Board encouraged the POU's to provide suggestions about plans or thoughts to design, build and maintain their systems to further mitigate wildfire risk in the future. The Board reiterates this request for suggestions and thoughts about future system structure and protocols, particularly considering the changing wildfire conditions in the State due to climate change, land-use change, or other change in

vegetation conditions. The Board would like to understand what new ideas or enhanced protocols POU's are considering. Many POU's are already primarily underground with their assets, or are considering further undergrounding of assets, particularly for new construction.

The Board would like to understand the POU rationale and circumstances that led to substantial undergrounding in the past and would like the POU's to think about how these and other standard practices may change in the future. Thoughts developed and presented in this arena may eventually lead to the CPUC modifying G.O. 95 to be consistent with changing conditions, system design, build, and maintenance practices.



SMUD REMAINS INNOVATIVE BY CONSIDERING DISTRIBUTED GENERATION AS AN ALTERNATIVE MITIGATION MEASURE REPLACING SOME GENERATION ASSET DISTRIBUTION CIRCUITS IN THE HFTD.

3. Risk Assessment and Mapping

Utilities generally have extensive historical experience with wind speeds by season, rainfall (and snow) and temperature conditions in their service territories. The Board appreciates the information on these service territory aspects in the 2021 WMPs and informational responses. The next step, in the Board's mind, is understanding in each service territory how these weather-related risk drivers will change in future scenarios given the impacts of climate change. The Board is looking for any individual utility or collaborative effort to better understand how these expected changing conditions may change the risks and hence the mitigation responses to wildfire.

POUs, IOUs, and others are adding significant situational awareness technologies that provide much better data on wind speeds and directions, temperatures, moisture contents, and other underlying area conditions, as well as actively monitoring for ignitions in new and more automated ways. These technologies include weather stations, cameras, drones, satellites, and other monitoring technologies.

Weather and other factors that control wildfire ignition and behavior vary geographically and may differ to a degree by service territory. However, these environmental factors do not typically stop at territory borders. This raises the importance of collaboration with neighboring utilities, nearby cities, state agencies, etc. to better understand weather-related risks that are broader than the territory or naturally move from territory to territory over some period. The Board encourages more information in future WMPs about the installation of and use of situational awareness technologies to better understand wildfire risk drivers, particularly through collaborative activities and shared data.

Glendale's WMP shows consideration of risk tradeoffs and risk costs versus mitigation benefits by suggesting that zero risk may not be possible or even desirable. The Board observes that POUs in general have opted not to apply their own PSPS procedures, indicating that the potential costs of shutting off

Glendale's WMPs do a good job of discussing increased risk due to climate change causing additional dry fuel risk. The Board also appreciates Glendale's acknowledgement that zero risk is not possible – this may be particularly true with climate change over time.

The Board believes that NCPA and TANC have clearly and logically laid out the wildfire risks they face and described extensive program efforts to reduce those risks.

Anaheim's 2021 WMP paid clear and direct attention to the impacts of climate change on wildfire risks. Anaheim's description of wildfire risk factors in general was exemplary, including the assigning of a "risk owner" to each risk.

power preemptively outweigh the wildfire risk reduction benefits. The Board encourages further development of consideration of the risks and benefits of mitigation measures, such as PSPS events, broadening the risk focus beyond just wildfires themselves. SCE, for example, has done a commendable job of accounting for the risk/benefit tradeoffs of PSPS events.

The proliferation of new technologies such as drones can also have a negative effect on wildfire risk by interfering with the safety of airborne response to a wildfire. It is conceivable that over-reliance on technology can increase risk if human observations are overly minimized or if the extent the technology being relied upon fails or provides inaccurate data. The Board encourages POUs to develop information on any potential negative impacts of new technologies and how those impacts may be mitigated.

4. Vegetation Management and Inspections

In the 2021 Guidance Advisory Opinion the Board requested that the POU describe their vegetation management practices and evaluate their impact on reducing wildfire related risk, as well as the ecological impact of the treatment options chosen. As stated previously, the Board believes that POUs are planning to follow at a minimum the CPUC's G.O. 95 standards, as often documented in 2020 and 2021 POU WMPs. In some cases, POUs described going beyond these minimum standards due to specific wildfire conditions, in other cases they may not be pertinent (such as with a 100% underground asset utility). For the 2022 WMPs, the Board expects clarity about meeting, exceeding, or substituting for G.O. 95 standards.

The Board is still interested in more detail on vegetation management practices among the POUs to understand how the individual practices fit the varying circumstances of each utility. POU WMPs should include descriptions of the variety of

LADWP has done an excellent job of describing their vegetation management practices in the 2021 WMP, The expansion of the program and the clear defining of this task as a utility priority is greatly encouraged by the Board. LADWP's WM:P states that the approximately 350,000 trees within LADWP's inventory are actively managed and mitigated through a professional arborist and line clearance professionals. The plan highlights LADWP's environmentally friendly approach to vegetation management, opting to prioritize "hands on "mechanical line clearance, branch removal, tree Removal, and brush clearing practices over use of herbicides, to avoid impacts on water contamination, biodiversity, and human health.

Palo Alto's proactive attention to consideration of pumping water uphill in preparation for a potential wildfire and/or PSPS event is commendable.

treatment methods each POU uses, such as tree or branch removal, trimming, pruning, mowing, goats to remove grass, use of mechanical tools to clear brush, surface fuel clearing during the dry season, and herbicide use. Description of herbicide use is necessary because herbicides generally kill vegetation indiscriminately and can have detrimental long-term ecologic and human health impacts and be opposed by community members.

Of course, the dead vegetation that remains after any treatment must be cleared or removed. When all vegetation is cleared from beneath or around an asset or for access purposes, particularly when dealing with evergreen shrublands, this can create opportunities for new plant growth, including especially the widespread invasive annual grasses that extend across the State. These grasses are highly flammable and fire-prone for much of the year and can often facilitate ignitions, whereas vegetation with higher fuel moisture content may help to

suppress wildfires (e.g. serve as “ember catchers”). The POUs should describe in their 2022 WMPs how they deal with flammable new growth – how they track and manage that to prevent increased wildfire risk. The POU vegetation management plans in the WMPs should focus on smarter, ecologically relevant, vegetation management, not simply greater clearances or standard vegetation management protocols (per G.O. 95 standards). As the Board stated in the 2021 Guidance Advisory Opinion, this means in part identifying native and other vegetation by species, considering the ignition risk of these species, and describing how treatment methods vary depending upon the type of species.

Vegetation management is not just clearing plants from ground underneath assets, removing limbs or plants that may encroach on assets causing a vegetation contact, or addressing problem trees that may fail and fall on lines, resulting in vegetation contacts and potential downed lines. The Board encourages consideration where appropriate of alternate management methods, such as replacing vegetation with less flammable native options and reducing the ignition chances of vegetation by strategically increasing moisture content.

The Board appreciated information provided in the 2021 WMPs and the informational responses regarding the qualifications of utility personnel and contractors developing and evaluating vegetation management plans and conducting vegetation management activities. Utilities have been conducting vegetation management around their assets for decades and generally have strong worker safety protocols in place. In some cases, vegetation management activities may have become more frequent or increased in scope due to increased State attention to wildfire prevention. But smarter vegetation management requires interaction with scientists or experts that understand the relative growing and regeneration patterns, species traits, flammability, and ecological role that vegetation plays relative to fire ignition and behavior. The Board appreciates information provided by some POUs about reliance on scientific expertise but is still interested more broadly in how this expertise and information from ongoing fire research is integrated into vegetation management planning.

5. Community Communication, Outreach, Emergency Preparedness and Recovery

The main point of WMPs and utility wildfire mitigation actions in general is to reduce the likelihood of wildfire ignitions caused by utility infrastructure. Secondly, if a wildfire does occur despite utility management plans and actions, the aim is to prevent spread of that fire and avoid a catastrophic wildfire. Customer and community communication is a key strategy for avoiding significant wildfire impacts on human life, structures, and sensitive areas. Impacts can be avoided if customers are quickly informed about wildfire starts and likely spread and are able to safely evacuate if necessary. Finally, rapid and supportive recovery and rebuilding as necessary can minimize long term community impacts. Utilities have a responsibility to go beyond managing their assets to provide information and assistance to their customers in these situations, working with and within the appropriate general emergency communication structures in place.

The Board appreciates the information that the POUs provided in informational responses and 2021 WMPs about the impacts of PSPS interactions with their service territories and impacts on their customers. The Board acknowledges that the POUs see PSPS events as an action of last resort for their customers given the impacts on vital city services, including first responders and water facilities critical for firefighting, as well as vulnerable customers.

Many if not most of the POUs have service territories that are unlikely to be affected by IOU (or other POU) PSPS events, and nearly all do not plan to initiate their own PSPS events as a significant wildfire mitigation strategy. The Board appreciates the PSPS information that came in informational responses in 2021 and encourages the answers in those to Board questions to be integrated within future WMPs as appropriate.

Anaheim developed and described excellent customer outreach and care programs for wildfire preparation. The Board appreciates the emergency notification and communication protocols in place at Anaheim, and particularly applauds the customer care programs that have been established, including providing back-up generation options to customers where appropriate and establishing rebate programs for fire-resistant attic insulation and attic vents.

The Board commends Plumas Sierra's practice of sharing costs if customers desire to underground service to the premises and replacing legacy tree attachments with free poles at customer request.

In a few cases the POUs indicated in 2021 WMPs that backup power existed to some extent for their customers, either through internal or nearby generation sources partially owned or controlled by the POU or by memorandums of understanding for generation to be provided as backup for an IOU PSPS cutoff by a local private generation facility. In general, the POUs have indicated that vital services and businesses have available backup generation on-site that is not owned by, supplied by, or controlled by the POU. The Board encourages additional attention to backup supplies, and coordination of those, in future WMPs for purposes of resiliency and wildfire recovery efforts, in addition to PSPS mitigation. Most existing backup generation is likely diesel-fired; examination of newer resiliency options like battery storage (as other utilities are doing) is encouraged for environmental and long-term resiliency reasons. While wildfire planning and mitigation efforts will generally affect broader utility resource planning, the Board is not asking POUs to engage in resource planning within WMPs. Rather, the Board wants to better understand the broader picture of resource availability and alternatives solely in the wildfire context.

6. Conclusion

Once again, the Board thanks the Electric Publicly Owned Utilities and Rural Electric Cooperatives for developing their second round of Wildfire Mitigation Plans pursuant to the direction provided by AB 1054. The Board looks forward to working with the POUs to further develop a framework to report and receive wildfire risk mitigation planning information in the spirit of the legislation in the 2022 plan updates and particularly in the 2023 major plan revision process.

The Board appreciates the efforts of the California Municipal Utilities Association, the Southern California Public Power Authority, the Northern California Power Agency, and the Golden State Power Cooperative to work with utilities and the Board to properly frame the next round of Wildfire Mitigation Plans through the remainder of 2022 and following years.

Public Utility Code Section 8387 (b)(2)¹⁵

A	An accounting of the responsibilities of the persons responsible for executing the plan.	
B	The objectives of the wildfire mitigation plan.	
C	Description of the preventative strategies and programs to be adopted by the publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	
D	A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions made that underlie the use of those metrics.	
E	A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	
F	Protocols for disabling reclosers and de-energizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	
G	Appropriate and feasible procedures for notifying a customer who may be impacted by the de-energizing of electric lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	
H	Plans for vegetation management.	
I	Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	
J	A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:	
	(i)	Risks and risk drivers associated with design, construction, operations, and maintenance of the local publicly owned electric utility or electrical cooperative's equipment and facilities.
	(ii)	Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned utility's or electrical cooperative's service territory.
K	Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is currently identified in a commission fire threat map, and identification of where the commission should expand the high fire threat district based on new information or changes to the environment.	



¹⁵ Please visit <http://leginfo.legislature.ca.gov/> for a complete and official copy of Public Utilities Code Section 8387.

L	A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.	
M	A statement of how the local publicly owned electric utility will restore service after a wildfire.	
N	A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:	
	(i)	Monitor and audit the wildfire mitigation plan.
	(ii)	Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.
	(iii)	Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, and other applicable statutes, or commission rules.

Guidance Advisory Opinion Specific to Each POU 2021 WMP Submittal

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
<p>Alameda Municipal Power</p>	<ul style="list-style-type: none"> • The Board appreciates Alameda providing an informational response to the Board's 2021 WMP Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response for this information. • The Board notes that the 2021 Guidance Advisory Opinion recommendations suggested that the WMP and related information should have a prominent and easily locatable website location. Alameda's 2021 WMP and related information meet this standard, but Information that has not been updated – such as the IE Report, is not easily found. The Board encourages Alameda to include previous WMPs and IE reports where feasible for easier public examination of progress. • The Board appreciates Alameda's submittal of a "redline" document to help guide Board review of their 2021 WMP. The redlines document shows that there were few, if any, material changes made from the 2020 WMP. Given the low wildfire risk in Alameda's service territory, the Board agrees that such annual updates are generally sufficient. The Board expects that for the 3-year "major" update, a more thorough re-examination will be performed, along with another IE Report. • The Board appreciates that, due to the low wildfire likelihood in Alameda's service territory, the utility appropriately does not have significant system hardening plans nor situational awareness protocols, although standard system construction practices are followed. • The Board appreciates the "best practices" customer notification protocols of Alameda, using Alameda County's "AC Alert" system where necessary to send voice, text, email, and FEMA wireless

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>alerts, as well as participating in the State's Standardized Emergency Management System.</p> <ul style="list-style-type: none"> The Board notes that Alameda owns or contracts with several generation resources outside its service territory, but it is unclear in Alameda's WMP if there are any wildfire risks associated with those resources that may be associated with Alameda in some way. The Board encourages Alameda to add statements regarding wildfire risks, if any, associated with these resources, along with implications to Alameda's customers should these resources be affected by wildfire.
<p>Anaheim Public Utilities</p>	<ul style="list-style-type: none"> The Board commends Anaheim for an extremely well-written and comprehensive WMP, which clearly and logically lays out Anaheim's wildfire risks and extensive program efforts to reduce those risks. The Board appreciates that Anaheim incorporated in its 2021 WMP much of the recommendations in the Board's 2021 Guidance Advisory Opinion – this is “best practice”, rather than providing a separate informational response. The Board encourages Anaheim to continue to include and update as needed the upfront template and statutory cross-reference tables and continue to proactively include Board advisory guidance in future WMPs where appropriate. The Board notes that the 2021 Guidance Advisory Opinion recommendations suggested that the WMP and related information should have a prominent and easily locatable website location. Anaheim's 2021 WMP and related information meet this standard, but Information that has not been updated – such as the IE Report, is not easily found. The Board encourages Anaheim to include previous WMPs and IE Reports where feasible for easier public examination of progress. The Board appreciates Anaheim's submittal of a “change” letter to help guide Board review of their 2021 WMP. The change letter makes clear that Anaheim incorporated significant changes in response to the Board's 2021 Guidance Advisory Opinion and made other material changes in the 2021 WMP.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates the exemplary job that Anaheim's 2021 WMP does of describing wildfire prevention plans and strategies, including vegetation management practices, inspection protocols, and situational awareness and system hardening status and projects. The Board looks forward to learning of progress made on a variety of projects in the 2022 WMP, as promised in the 2021 WMP. • The Board appreciates the direct and clear attention paid in Anaheim's 2021 WMP to the impacts of climate change on wildfire risks. Anaheim's description of wildfire risk factors in general was exemplary, including the assigning of a "risk owner" to each risk. • The Board applauds Anaheim's ongoing wildfire prevention projects, including undergrounding, replacement of expulsion fuses, use of covered lighting arrestors, replacement of wood poles, use of bird diversion devices, installation of fire cameras (interconnected to the regional network) and weather stations, and inspection and operational practices. The Board looks forward to progress updates on these programs in the 2022 and future WMPs. • The Board commends Anaheim for an excellent selection and description of comprehensive tracking metrics to assess progress on mitigation of wildfire risks, as well as the detailed reporting and auditing of metric data from past years. The Board looks forward to a continuation of well-crafted information about metrics and progress in Anaheim's future WMPs. • Anaheim has also provided an excellent description of its customer outreach and care programs for wildfire preparation. The Board appreciates the emergency notification and communication protocols in place at Anaheim, and particularly applauds the customer care programs that have been established, including providing back-up generation options to customers where appropriate and establishing rebate programs for fire-resistant attic insulation and attic vents. The Board looks forward to more information about these programs, including customer participation information.

Anza Electric Cooperative

- The Board appreciates Anza providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response.
- The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Anza has provided good information about adoption, public process, and budget procedures in their WMPs and informational response and the Board encourages Anza to continue in future WMPs.
- The Board appreciates Anza's clear and prominent website location for the 2021 WMP and informational response (or addendum). The Board also appreciates a continued link to the IE Report from 2020 and encourages Anza to continue to post robust WMP information prominently, including links to previous WMPs to allow public and Board tracking of WMP progress.
- While Anza did not submit a "change" document to the Board to focus review as requested, the Board can observe that there are a few substantive updates between Anza's 2020 and 2021 WMPs. The Board encourages Anza to incorporate appropriate informational response information as recommended above as well as changes in response to IE Report(s) and updates of ongoing projects as appropriate.
- The Board notes that many projects and activities described in the 2020 WMP, such as research with the U.S. Department of Energy on remote downed line sensors, a third fiber-connected recloser, research into 360-degree high resolution cameras, modification of the design manual to include circuit hardening, pole-loading software, outage database information, workforce training updates, and community collaborations were unchanged in the 2021 WMP. The Board encourages Anza to provide updates on progress on these efforts to mitigate and reduce wildfire risk.
- The Board appreciates Anza's description of distressed pole replacement with ductile iron poles and encourages continued assessment of strategies such as replacing non-exempt power line

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>components (including expulsion fuses), higher-strength conductors, and increased spacing. Anza's description of tree trimming results was good information.</p> <ul style="list-style-type: none"> The Board commends Anza's strong attention to situational awareness by installing weather stations and considering high resolution cameras, along with significant collaboration efforts.
<p>Azusa Light & Water, City of Azusa</p>	<ul style="list-style-type: none"> The Board appreciates Azusa updating their WMP to include as an Appendix the Board's upfront context template and updated cross-reference from statutory provisions to where responses can be found in the WMP. The Board considers inclusion of responses to its recommendations in WMPs themselves to be best practice (rather than as a separate "informational response"). In the 2022 WMPs and beyond, the Board encourages Azusa to move the context template to the front (or refer to the Appendix near the front) of the WMP and include other enhancements in response to the Board's advisory guidance in future WMPs where appropriate, eliminating the need for a separate informational request and response for this information. The Board appreciates that Azusa's website includes links pointing to the 2020 and 2021 WMPs, and the 2019 IE Report. The Board considers comprehensive WMP information on the website as "best practices". The Board encourages Azusa to prominently refer to the WMP information so that it can be clearly accessed without doing a "search" for easier public and Board examination of progress. The Board appreciates Azusa's submittal of a "change" letter to help guide Board review of their 2021 WMP. The change letter shows that there were few, if any, material changes made from the 2020 WMP (other than the context template and updated cross reference in Appendix D). The Board encourages Azusa to more thoroughly update their annual WMPs in response to risk changes, new information, and Board advisory guidance, particularly for the 3-year "major" update. With the submittal of the updated 2021 WMP Azusa has better articulated who they are, what customer base they serve and what their true risk profile looks like in their service territory. The Board appreciated the additional reference material that accompanied their WMP to help understand how they interact

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>with high fire threat zones. The provided maps and circuit diagrams helped the Board to understand the relatively low likelihood of wildfire in the Azusa utility area. The comprehensive description of its customer base, the load demand it must meet, and the description of its underground facilities was helpful. Due to 100% underground assets in high fire threat zones Azusa has a simpler WMP that has been written in a fashion that is easy to understand and visualize.</p> <ul style="list-style-type: none"> • The Board notes that Azusa's WMP does not address the unlikely risk of ground transformers as possible sources of wildfire ignition. Azusa possesses several ground-mounted (pad-mounted) transformers in the Tier 2 zones, even though the distribution wires in those zones are underground. The Board believes that explosive transformer failures, while rare, can be a viable source of ignition in the right circumstances and encourages Azusa to address this risk in future WMPS.

Banning, City of

- The Board appreciates many POU's providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a filing from Banning. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements that were generally included in 2021 POU informational responses should be included in the Banning's WMP itself where appropriate, avoiding the need for a separate informational request and response.
- The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Banning's WMPs are clearly adopted by the City Council per the website but the WMPs only say that they will be "presented" to the Council. The Board encourages Banning to provide a short paragraph in future WMPs that describes the adoption and public comment processes Banning followed for the WMP being submitted, including resolutions if applicable, along with information about budget processes for any potential or expected mitigation expenses.
- The Board appreciates Banning's clear and prominent website location for their WMP but notes that the WMP included on the web is the original version 1.0, not the adopted 2020 nor adopted 2021 WMP. The Board encourages Banning to update and include links to the most recent WMP as well as older plans to allow perusal of WMP history. While Banning's 2020 WMP states that an IE Report was developed and posted on the website, and a resolution about the IE Report can be found, the IE Report itself appears unavailable and was apparently not submitted previously to the Board. The Board encourages Banning to provide the IE Report on the WMP along with any future IE Reports. While Banning's 2021 WMP states that no further IE Reports are planned, the Board notes that other POU's have provided updated IE Reports and expects an IE Report for the required future comprehensive revision of Banning's WMP.
- While Banning did not submit a "change" document or "redline" document to the Board to focus our 2021 WMP review, the Board can observe that there were few changes between utility's 2020 and 2021 WMPs. The Board does appreciate the updated metrics and plan evaluation tables near the end of the 2021 WMP. The Board notes several minor errors and outdated leftover information included in Banning's 2021 WMP. For example, both the 2020 and the 2021 WMP have identical language about a "high priority"

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>development of protocols to deal with an SCE PSPS situation. The Board encourages Banning to carefully review and update their 2022 WMP, including incorporating the upfront template and cross-reference table and other appropriate information per the Board's 2021 Guidance Advisory Opinion.</p> <ul style="list-style-type: none"> • The Board appreciates Banning's descriptions of a variety of actions and plans to reduce wildfire risk, including pilot projects, eventually converting Gilman Street circuit to underground, hardening the Banning Canyon line, adding disconnect devices to Mias Canyon, developing a Key Accounts system, community wildfire discussion meetings (including climate change), better communication and evacuation methods, fire protectant wrap on utility poles, working with customers to underground service drops, and construction and operational changes. The Board looks forward to updates on Banning's mitigation progress in future WMPs, while noting that several of the projects proposed in the 2020 WMP appear not to have progressed in the 2021 WMP. • The Board appreciates Banning's mention of higher temperatures and dryer vegetation risks due to climate change. The Board encourages Banning to also consider the impacts of potential higher wind speeds and an earlier fire season (Banning's 2021 and 2020 WMPs state that fire season historically begins on September 1 each year). • The Board is curious about Banning's statement that the development of the open areas consisting of Gilman Ranch and Sunnyslope Cemetery will reduce wildfire risk in those areas. The Board encourages more complete analysis or description of the wildfire risk tradeoffs of development in HFTD areas.
Biggs, City of	<ul style="list-style-type: none"> • The Board appreciates many POU's providing an informational response to the Board's 2021 Guidance Advisory Opinion recommendations but did not receive such a submittal from Biggs. As a result, it is difficult to review Biggs's WMP as there is no clear information about high fire threat district interaction or undergrounding of circuits, for example. In Biggs's 2022 and subsequent WMPs, the utility should include the upfront template and table indicating where in the WMP statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Biggs has not provided much information here, other than stating that annual WMPs will be "presented" to the City Council. In future WMPs, Biggs should consider adding a short paragraph in its subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated. • The Board appreciated many POU's submittal of a "change" letter or "redline" document to help guide Board review of their 2021 WMP but received no such information from Biggs. Nevertheless, an examination of Biggs's 2020 versus 2021 WMPs indicates that very little, if anything, has changed between the two WMPs. The Board encourages Biggs to consider recommendations from the Board (and any independent evaluation) and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board notes that Biggs has apparently not engaged an IE for either the 2020 or 2021 WMPs. Biggs does not appear to have posted on their website or filed an IE Report with the Board for the 2020 or 2021 WMPs. Biggs's WMPs suggest that an Independent Evaluator will be engaged to review, but there is no evidence that this has happened. The Board has recommended that IEs perform a robust evaluation of the contents and substance of the WMPs and encourages Biggs to engage with a qualified Independent Evaluator for the 2022 and future WMPs. • The Board notes that Biggs's WMPs do not contain information about where they can be found on their website, and it appears that the WMPs are not easily, if at all, located on the Biggs website. The Board's 2021 Guidance Advisory Opinion recommended that WMPs and related information be posted in a prominent, easily located position on a utility's website. • The Board appreciates that Biggs includes a list of wildfire risks but notes that the statute requires description and prioritization of those risks in the WMP, such description appears to be lacking in Biggs' 2021 WMP. Although the Board recognizes that due to the central valley location of Bigg's primarily urban service territory, surrounded by farmland, that Biggs' wildfire likelihood appears tow; the Board

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>still encourages Biggs to provide more description of interaction with PG&E's surrounding electric infrastructure and potential for PSPS interactions there.</p>
<p>Burbank Water and Power</p>	<ul style="list-style-type: none"> • The Board appreciates Burbank providing an informational response to the Board's 2021 Guidance Advisory Opinion recommendations. In the 2022 WMPs and beyond, the upfront context template (in addition to Burbank's already good narrative and graphic description of their service area) and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. • The Board appreciates Burbank's description of the adoption and public comment processes for their WMPs. The Board encourages continued transparency here, including information such as adoption resolutions, as well as information about any necessary budget enhancements or processes for potential or expected mitigation expenses. • The Board appreciates Burbank's clear and prominent website location for the 2021 WMP and 2020 IE Report(s) but encourages Burbank to also include a link to allow perusal of WMP history, that is – public access to former WMPs, to allow easy tracking by the public and Board of WMP material over time. • The Board appreciates Burbank's submittal of a "change" document to focus the Board's 2021 WMP review. The Board can easily observe that there were appropriate and significant changes in many areas of the 2021 WMP and encourages Burbank to also incorporate appropriate informational response information as recommended above in future WMPs. • The Board appreciates Burbank's articulation of potential exposure to wildfire ignitions within its service territory. Burbank's historical fire frequency map and detailed circuit map and table in relation to the Tier 2 HFTD area within their service area are important tools to help evaluate fire mitigation programs and protocols. • The Board appreciates Burbank's WMP pointing out the hazard that an unfortunately placed ignition poses to feasible evacuation, because of narrow canyon roads in some residential areas that

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>dead end with inadequate turn around clearances. The Board looks forward to additional focus on mitigation and preparation for wildfires affecting these areas.</p> <ul style="list-style-type: none"> • The Board appreciates Burbank's plan to replace conventional (expulsion) fuses within their Tier 2 HFTD over the next few years. The wildfire prevention strategies and programs section of the WMP indicates BWP will upgrade its construction and maintenance standard beyond current GO.95 standards and operational practices to mitigate identifiable risk presented by both the topography and population growth within the at-risk zones. Burbank's pole replacement program identified that possible upgrading to stouter composite poles that will help with wind loading issues and aggressive wind patterns that can impact the foothills of Burbank's service territory and surrounding areas. • The Board notes that Burbank does not currently have a viable plan to utilize nor deploy PSPS actions and appreciates Burbank's stated plan to explore developing said protocols to enhance customer communication and community coordination planning. A PSPS may be the most prudent solution in an unanticipated weather event that exposes the utility to greater than anticipated risk. Burbank should also explore possible battery backup plans to minimize outages outside of the hazardous area. • The Board commends Burbank on an exemplary description of implementation of wildfire mitigation strategies in 2020, including pole, transformer, and fuse replacements; composite pole installation pilots; steel reinforced aluminum conductors in new construction; and ongoing engineering studies that will inform additional measures such as reclosers. The Board looks forward to continued updates in future WMPs of Burbank's wildfire mitigation activities and plans. • The Board commends Burbank for an excellent selection of and description of comprehensive tracking metrics to assess progress on mitigation of wildfire risks, as well as the detailed reporting and auditing of metric data from past years. The Board looks forward to a continuation of well-crafted information about metrics and progress in Burbank's future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
Cerritos Electric Utility, City of Cerritos	<ul style="list-style-type: none"> • The Board appreciates Cerritos providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board appreciates Cerritos including the adoption resolution, along with a sentence about budget processes in its informational response. • The Board appreciates Cerritos' clear and prominent website location of the IE Report for the previous WMP but encourages Cerritos to revise the link to point to the latest WMP, with connections to older WMPs and IE reports. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs.
Colton, City of - Colton Electric Department	<ul style="list-style-type: none"> • The Board appreciates Colton providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response for this information. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Colton to include an adoption resolution or similar approval documentation, along with a sentence or two about public participation and comment and about budget processes in future WMPs. • The Board appreciates Colton's clear and prominent website location of the previous WMP and Independent Evaluation Report but encourages Colton to revise the link to point to the latest WMP and IE Report, with connections to older WMPs and IE Reports. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> <li data-bbox="415 264 1490 495">• The Board commends Colton for drafting a well-organized and easy to follow 2021 WMP. In particular, the Board believes that Colton's description of system hardening and recloser and de-energization policy were crafted well. The Board recognizes that Colton has relatively low likelihood of catastrophic wildfire, particularly in the majority urban part of the service territory. <li data-bbox="415 537 1495 768">• The Board appreciates Colton providing an IE Report for the 2021 WMP in addition to the IE Report provided for the earlier 2020 WMP. The Board believes that regular IE Reports on WMPs will result in better WMPs and reduced wildfire risk. The Board is curious about the significant reduction in discussion in the 2021 WMP compared to the 2020 WMP. <li data-bbox="415 810 1468 1041">• The Board appreciates Colton's attention to updating evaluation metrics, adding vegetation contact as a metric in the 2021 plan and noting that the "ignitions" metric that is still included may not be useful, since Colton has seen zero instances historically. The Board agrees that a metric that is perhaps too easy to meet may not be truly helpful.
Corona, City of	<ul style="list-style-type: none"> <li data-bbox="415 1085 1484 1358">• The Board appreciates Corona providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. <li data-bbox="415 1400 1484 1673">• The Board's appreciates Corona's submittal of the staff report and resolution for adoption of the 2021 WMP, as recommended in the Board's 2021 Guidance Advisory Opinion. The Board encourages Corona to provide a short paragraph within future WMPs that describes the adoption and public comment processes Corona followed for the WMP, along with information about budget processes for any potential or expected mitigation expenses. <li data-bbox="415 1715 1484 1894">• The Board appreciates Corona pointing to its general website in the informational response to the Board's 2021 Guidance Advisory Opinion but found that the reference did not provide enough specificity or clarity to actually reach the 2020 or 2021 WMPs or the 2019 IE Report on Corona's website. The Board encourages

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>Corona to clarify these links to provide easily locatable WMP information, including the ability examine and understand WMP history, that is – public access to former WMPs and IE Reports,</p> <ul style="list-style-type: none"> • The Board appreciates Corona's submittal of a "redline" document to focus the Board's WMP review as requested and observes that there were few substantive changes between Corona's 2020 and 2021 WMPs. Other than the incorporation of appropriate informational response information as recommended above, the Board believes that minimal changes are reasonable given Corona's relatively low likelihood of catastrophic wildfire. • The Board notes that Corona's WMP does not address the unlikely risk of ground transformers as possible sources of wildfire ignition. Corona's WMP states that other than the short 3-pole line connecting to Southern California Edison's (SCE) system all their assets are underground. The Board is unclear, however, whether Corona employs any ground-mounted (pad-mounted) transformers or if the underground reference is pointing mainly to distribution lines. The Board believes that explosive transformer failures, while rare, can be a viable source of ignition in the right circumstances and encourages Corona to address this risk in future WMPs. • The Board notes that Corona has a low likelihood of catastrophic wildfire due to the complete service territory undergrounding of distribution infrastructure and its urbanized service area. The Board appreciates that Corona's WMP still addresses possible exposure to ignition through their short overhead interconnection to SCE 115 KV circuits as well as surrounding area. Corona's fairly simple WMP still communicates Corona's commitment to continue to monitor what if any new operational protocols can be implemented to further reduce wildfire risk. • The Board recommends that Corona explore the viability of battery storage to supplement possible PSPS issues caused by SCE. Independent generation including solar might be worth investigating as a stop gap for dealing with a surrounding utility's wildfire mitigation issues. The Board recommends that Corona address the need for supplemental power, even if it is a small possibility that a PSPS event will occur for their ratepayers. Hospitals,

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>essential services, water treatment, and communications depend on a well-prepared public utility.</p> <ul style="list-style-type: none"> • The Board appreciates the exhibits at the end of Corona's WMP that show pictures of Corona's service territory and assets but notes that more explanation of what is shown in each picture and the relevance to wildfire mitigation would be useful.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
Eastside Power Authority	<ul style="list-style-type: none"> • The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive one from Eastside. In the 2022 WMPs and beyond, the Board encourages Eastside to include the requested upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Eastside to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses. • The Board's 2021 Guidance Advisory Opinion requested that POUs provide clear and prominent website information regarding their wildfire mitigation plans and reports. Eastside's rudimentary website does not contain any WMP information, other than a resolution adopting the initial WMP and referencing the IE by the Strathmore Fire Protection District (which is difficult to locate). Given Eastside's lack of distribution assets, small size, and low likelihood of causing catastrophic wildfire, this may be appropriate, but the Board encourages Eastside to upgrade the WMP information and consider engaging in a certified independent auditor for future WMPs. • While Eastside did not submit a "change" document or "redline" document to focus the Board's review of the 2021 WMP as requested, the Board can observe that, Eastside, in fact, resubmitted the 2020 WMP as their 2021 WMP with no updates whatsoever, not even changing the internal date of the WMP. Again, given Eastside's size, lack of relevant assets, and low-likelihood wildfire location this may be reasonable, but the Board encourages Eastside to develop a more relevant update and comprehensive revision in future WMPs.
Glendale Water & Power	<ul style="list-style-type: none"> • The Board appreciates Glendale providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>WMP itself where appropriate, eliminating the need for a separate informational request and response.</p> <ul style="list-style-type: none"> • The Board appreciates inclusion of information about the adoption and public comment aspects of Glendale's WMPs, including adoption resolutions, consistent with the Board's 2021 Guidance Advisory Opinion. The Board also appreciates information about Glendale's budgeting for wildfire mitigation activities. • The Board commends Glendale's clear and prominent website location for wildfire information, including a prominent WMP link. The wildfire information is useful for the public and appropriate for the level of wildfire risk in Glendale's area. The Board notes that the WMP link on the website is for the original 2020 WMP, not the current 2021 WMP and encourages Glendale to update the link while also continuing to include a link to the original WMP to allow perusal of WMP history. • The Board appreciates Glendale's submittal of "change" document that clearly indicates where alterations were made between the 2020 and 2021 WMPs, including the "version history" information in the WMPs themselves. The Board encourages Glendale to also incorporate appropriate informational response information as recommended above in future WMPs. • The Board commends Glendale for the overarching risk orientation in their WMPs, including an overall mission of minimizing the risk of catastrophic wildfire. Glendale's "wildfire = ignition X spread" approach places the focus of efforts on more than just utility-caused ignitions to include what happens after any ignition to turn that event catastrophic. Here, Glendale discusses increased risk due to climate change causing increased dry fuel risk. The Board encourages Glendale to expand consideration of increased climate change risk to include wind event and hotter temperature risks. The Board appreciates Glendale's acknowledgement with their risk focus that zero risk is not possible – this may be particularly true with climate change over time. The Board commends Glendale for an exemplary analysis and description of historical, utility-related fires in their service area and excellent enterprise-wide risk analysis section of their WMP.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates but looks forward to additional explanation regarding Glendale’s prioritization of assets, starting with the extensive Tier 2 and 3 HFTD areas in their service territory then prioritizing to areas where there GWP assets are present and finally prioritizing to areas where GWP assets are within 100 ft of private structures. The substantial reduction in apparent focus derived from this process – to just 0.032% of service territory – raises the possibility that some crucial assets in Tier 2 or 3 HFT areas may not receive adequate attention. • The Board appreciates Glendale’s comprehensive consideration of a variety of wildfire mitigation strategies, including the addition of animal intrusion covers and replacement of expulsion fuses in the 2021 WMP, studying non-grounded capacitor banks, and considering adding weather stations and HD cameras on top of a long list of standard practices. The Board also appreciates the explicit recognition that additional staffing is necessary to implement additional mitigation practices. The Board looks forward to an update on the engineering contract to examine all assets and establish an asset baseline, originally scheduled in early 2020 and then moved to mid-2021. • The Board commends Glendale on an exemplary discussion of WMP metrics – more than just “ignitions and wires down” and a solid plan for evaluation of metric results, including questioning whether a metric is truly useful if it is achieved too easily.
Gridley, City of	<ul style="list-style-type: none"> • The Board appreciates many POU’s providing an informational response to the Board’s 2021 Guidance Advisory Opinion but did not receive such a submittal from Gridley. As a result, it is difficult to review Gridley’s WMP as there is no clear information about HFTD interaction or undergrounding of circuits, for example. In Gridley’s 2022 and subsequent WMPs, the utility should include the upfront template and cross-reference table indicating where in the WMP statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. • The Board’s 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Gridley has not provided much information here, other than stating that annual WMPs will be “presented” to the City Council. Gridley should consider adding a short paragraph in its

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated, as recommended in the Board's 2021 Guidance Advisory Opinion.</p> <ul style="list-style-type: none"> • The Board appreciated many POU's submittal of a "change" letter or "redline" document to help guide Board review of their 2021 WMP but received no such information from Gridley. Nevertheless, an examination of Gridley's 2020 versus 2021 WMPs indicates that very little, if anything, has changed between the two WMPs. The Board encourages Gridley to consider recommendations from the Board and any IE Report and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board notes that Gridley has apparently not engaged an IE for either the 2020 or 2021 WMPs – none appears to have been posted on their website or filed with the Board for the 2020 or 2021 WMPs although Gridley's WMPs suggest that an IE will be done. The Board has recommended that IEs perform a robust evaluation of the contents and substance of the WMPs and encourages Gridley to engage with a qualified IE for the 2022 and future WMPs. • The Board notes that Gridley's WMPs do not contain information about where they can be found on Gridley's website, and it appears that the WMPs are not easily, if at all, located on the Gridley website. The Board's 2021 Guidance Advisory Opinion recommended that WMPs and related information be posted in a prominent, easily located position on a utility's website. • The Board appreciates that Gridley's 2021 WMP includes a list of wildfire risks but notes that the statute requires description and prioritization of those risks in the WMP, such description appears to be lacking in Gridley's 2021 WMP. Although the Board recognizes that wildfire likelihood appears low in Gridley due to their central valley location and primarily urban service territory, surrounded by farmland, the Board still encourages Gridley to provide more description of interaction with PG&E's surrounding electric infrastructure and potential for PSPS interactions there.
Healdsburg, City of Electric Department	<ul style="list-style-type: none"> • The Board appreciates Healdsburg providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (with links), and other enhancements included in the

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response.</p> <ul style="list-style-type: none"> • The Board appreciated many POUs submittal of a “change” letter or “redline” document to help guide Board review of their 2021 WMP but received no such information from Healdsburg. Nevertheless, an examination of Healdsburg’s 2020 versus 2021 WMPs indicates that very little has changed between the two WMPs. It would appear that even the changes recommended in the 2020 IE Report have not been included in Healdsburg’s 2021 WMP. The Board encourages Healdsburg to consider recommendations from the Board and the IE and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board’s 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Healdsburg has not provided much information here, other than stating that the WMP will be presented to the City Council. Healdsburg should consider adding a short paragraph in its subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated, as recommended in the Board’s 2021 Guidance Advisory Opinion. • The Board appreciates Healdsburg’s clear and prominent website location of WMP information but notes that the website refers to the older 2020 WMP and 2020 IE Report. The Board encourages Healdsburg to update and continue to provide that public-facing information for all aspects of the WMP process, including current as well as previous versions of the WMP and IE Reports, and ancillary documents such as the informational response submitted in 2021. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs. • The Board appreciates and commends Healdsburg’s vegetation management practices, going beyond the minimum requirements of G.O. 95. The Board looks forward to continued updates in future WMPs concerning any additional vegetation management practices undertaken based on learning from past metrics and understanding of changing conditions, such as from climate change. The Board notes that Healdsburg’s WMP does not spend

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p data-bbox="459 264 1422 338">much time or text discussing the impact of climate change on mitigation practices.</p> <ul data-bbox="412 384 1479 768" style="list-style-type: none"> <li data-bbox="412 384 1479 768">• The Board notes that Healdsburg has examined alternative grid equipment such as covered conductors and steel poles and has provided interesting rationale as to why those strategies are not currently planned to be employed by Healdsburg. The Board appreciates the sentiment of being open to ways to reduce wildfire risk and encourages Healdsburg to continue to explore alternative mitigation practices, such as strategic irrigation to increase fuel moisture content, further undergrounding of conductors, and customer programs to achieve defensible space and building hardening.

**Imperial
Irrigation
District**

- The Board appreciates Imperial providing a comprehensive informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response.
- The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board commends Imperial's extensive description of the WMP review, adoption and public comment processes within the 2020 WMP, as supplemented by the informational response.
- The Board's 2021 Guidance Advisory Opinion indicated that POUs should include WMP reports and information in a clear and prominent place on their websites. The Board notes that Imperial's WMP information can be found through a search but that there is no clear link the public or the Board can follow to access the information on a prominent page. The Board encourages an update here, so that the Board and public have clear access to current and past WMP information.
- The Board appreciates Imperial providing a "change" document to focus the Board's review as requested and commends Imperial on a comprehensive description of progress in WMP strategies in their submitted WMP Progress Summary Report. Imperial's interpretation of their WMP responsibility, involving an initial 2020-2022 comprehensive WMP with a 2021 "progress report" is unique, but serves the process well. In the next comprehensive WMP for Imperial, the Board encourages incorporation of appropriate informational response information as recommended above.
- The Board commends Imperial on an exemplary treatment of the effects of climate change on wildfire risks in their service territory. Imperial's treatment was comprehensive and based on appropriate research results, reaching the conclusion that wildfire risks would not be greatly increased despite higher projected temperatures.
- The Board appreciates Imperial's metrics going beyond fire ignitions and wires down to also include imminent threats violations, encroachment violations, and infrastructure developments in HFTD

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>areas, with clear goals for all metrics and good tracking information. The Board looks forward to future metric results updates.</p> <ul style="list-style-type: none"> The Board commends Imperial for comprehensive and serious engagement with an IE process. The IE Report and the separate Service Territory Report provide valuable recommendations for improvements in Imperial's system. The Board looks forward to updates on these issues and their impact on reducing wildfire risk in future WMPs.
Industry, City of	<ul style="list-style-type: none"> The Board appreciates Industry providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (with links), and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. The Board appreciates Industry's submittal of a "change" letter to help guide Board review of their 2021 WMP. That letter indicates that there were few if any changes in the 2021 WMP versus the 2020 WMP. It is not clear to the Board that that even the recommendations in the 2019 IE Report have not been included in Industry's 2020 or 2021 WMP. The Board appreciates Industry's submittal of the official minutes indicating the Industry Public Utility Commission's adoption of the 2021 WMP. Industry should consider incorporating this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated, avoiding the need for a separate submittal document. The Board appreciates Industry's clear and prominent website location of 2021 WMP information, including the submitted informational response. The Board encourages Industry to continue to provide public-facing information for all aspects of the WMP process, including previous versions of the WMP and IE Reports. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> The Board commends Industry for, as a utility unlikely to experience catastrophic wildfire, covering that risk succinctly in the 2021 WMP and continuing to look for mitigation strategies, such as increased inspection protocols, better underground cable, installation of AMI, and relay protection coordination studies. The Board encourages Industry to update the status of these mitigation strategies in future WMPs and looks forward to that updated information.
Kirkwood Meadows Public Utility District	<ul style="list-style-type: none"> The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Kirkwood Meadows. In Kirkwood Meadow's 2022 and subsequent WMPs, the utility should include the upfront template and cross-reference table indicating where in the WMP responses to statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. The Board appreciated many POUs submittal of a "change" letter or redlines-document to help guide Board review of their 2021 WMP but received no such information from Kirkwood Meadows. Nevertheless, an examination of Kirkwood Meadow's 2020 versus 2021 WMPs indicates that significant changes were made throughout the 2021 WMP compared to the 2020 WMP. Some of these changes were recommended by the Board's 2021 Guidance Advisory Opinion, others by the 2021 IE Report. The Board encourages Kirkwood Meadows to continue relevant updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. The Board's 2021 Guidance Advisory Opinion requests a short paragraph about the approval process and public comment process for WMPs. The Board notes that Kirkwood Meadows's 2021 WMP does not really describe that adoption or public participation in that process. Kirkwood Meadows should consider incorporating this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated. The Board's 2021 Guidance Advisory Opinion recommends utilities post WMP information prominently on their websites and include a paragraph in the WMP itself pointing to the website location. Kirkwood Meadow's does not appear to have such a prominent

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>posting site, making it difficult for the Board and public to find WMP information. The Board encourages Kirkwood Meadows to provide public-facing information for all aspects of the WMP process, including current as well as previous versions of the WMP, IE Reports, and other WMP information as appropriate, placed on the website in a prominent location. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs.</p> <ul style="list-style-type: none"> The Board notes that Kirkwood Meadows's WMPs have very little information about changing risks due to climate change. The Board encourages Kirkwood Meadows to consider the impacts of climate change on the fire season and other fire risks in future WMPs.
<p>Lassen Municipal Utility District</p>	<ul style="list-style-type: none"> The Board appreciates Lassen providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (with links), and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. The Board appreciates Lassen's submittal of a "change" letter to help guide Board review of their 2021 WMP. That letter indicates that there were only a few changes in the 2021 WMP versus the 2020 WMP. The Board encourages Lassen to continue to provide revision information to guide the Board's and the public's review and understanding of the most recent WMP. The Board's 2021 Guidance Advisory Opinion requests a short paragraph about the approval process and public comment process for WMPs. The Board notes that Lassen's WMP implies that the WMP will be approved by the Board of Directors when discussing the approval and auditing process but does not really describe that adoption or public participation in that process, particularly for the 2021 WMP for which there was not a separate Independent Evaluation Report developed. Lassen should consider incorporating this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates Lassen's website posting of WMP information but notes that placement under "News" and then "Public Notices" was not an obvious path and that the information posted refers to the 2020 WMP and IE report, not the 2021 WMP. The Board encourages Lassen to continue to provide public-facing information for all aspects of the WMP process, including current as well as previous versions of the WMP, IE Reports, and other WMP information as appropriate, placed on the website in a more obvious location. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs. • The Board notes that Lassen's WMPs have very little information about changing risks due to climate change. The Board encourages Lassen to consider the impacts of climate change on the fire season and other fire risks in future WMPs. • The Board appreciates Lassen's description of PSPS impacts focusing on the "islanding" agreement with the local biomass plant which allows continued service to Lassen's customers during PG&E PSPS events in most circumstances, including service to critical water facilities. • The Board notes an apparent contradiction in Lassen's 2021 WMP where on page 9 the WMP states that there were no fires or ignitions in 2020 while on page 19 the WMP describes an ignition in a Tier 2 HFTD area in 2020 due to Lassen's infrastructure. • The Board appreciates Lassen's consideration of non-expulsion fuses and similar equipment, enhanced inspections using drones and expanded right of way clearance activities to reduce wildfire risk. As a utility with relatively significant territory and surrounding area in the Tier 2 fire risk category, the Board encourages Lassen to continue enhanced and innovative investments to reduce wildfire risk.
Lathrop Irrigation District	<ul style="list-style-type: none"> • The Board appreciates many POU's providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Lathrop. In Lathrop's 2022 and subsequent WMPs, the utility should include the upfront template and cross-reference table indicating where in the WMP responses

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>to statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate.</p> <ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Lathrop does a good job of discussing opportunities for public comment but is not 100% clear on adoption of their WMPs, stating only that annual WMPs will be “presented” to the utility’s Board of Directors, not mentioning their adoption of such. Lathrop should consider adding to the description of utility Board presentation and adoption in its subsequent WMPs, as recommended in the Board’s 2021 Guidance Advisory Opinion. • The Board appreciated many POUs submittal of a “change” letter or “redline” document to help guide Board review of their 2021 WMP but received no such information from Lathrop. Nevertheless, an examination of Lathrop’s 2020 versus 2021 WMPs indicates that very little, if anything, has changed between the two WMPs. The Board encourages Lathrop to consider recommendations from the Board and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board appreciates the information in the Lathrop 2021 WMP regarding review of the plan for acceptable fire risk by the Lathrop/Manteca Fire District. Given the low likelihood of wildfire for Lathrop, this may be sufficient, but In future WMPs, Lathrop should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: OEIS : Case Log. • The Board appreciates Lathrop’s inclusion in their WMPs of a website link that prominently displays the WMP and other wildfire information. However, the link appears to point to the older 2020 WMP, not the most recent version (which is little changed). The Board encourages Lathrop to point to the most recent WMP on the website and include information about previous WMPs and IR Reports so that the Board and public can more easily gauge Lathrop’s wildfire status and progress. • The Board notes that Lathrop’s WMPs have very little, if any, information about changing risks due to climate change. For example, changing climate conditions are frequently described as

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>increasing the length of California's fire season but Lathrop appears to have not considered adjusting the May 1st to October 1st fire season listed in their WMPs. The Board encourages Lathrop to consider the impacts of climate change on the fire season and other fire risks in future WMPs.</p> <ul style="list-style-type: none"> The Board appreciates that Lathrop has provided a comprehensive and detailed 2021 WMP even though due to Lathrop's central valley location and significant undergrounding of lines their likelihood of catastrophic wildfire is very low. The Board still encourages Lathrop to provide a more complete description of their interaction with and dependency on PG&E's surrounding electric infrastructure and potential for a PG&E initiated PSPS affecting their customers. One question would be whether there is any backup power owned by or available to Lathrop in the case of an impact by a PG&E PSPS.
<p>Lodi Electric Utility, City of Lodi</p>	<ul style="list-style-type: none"> The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Lodi. In Lodi's 2022 and subsequent WMPs, the utility should include the upfront template and cross-reference table indicating where in the WMP statutory requirements can be found at the front of the WMP and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. The Board's 2021 Guidance Advisory Opinion requested information about public comment and adoption processes for the WMP. The Board encourages Lodi to include a short paragraph describing this process in future WMPs, including the adopting resolution for Lodi's WMPs if available. The Board appreciates Lodi's submittal of a "change" document to help guide Board review of their 2021 WMP and believes that the "Revision Log" approach to this is most helpful, including providing that Revision Log within the WMP itself, making a separate submittal unnecessary. The Board encourages Lodi to continue to reflect updates in this manner, particularly as to progress on proposed wildfire mitigation measures and metrics. The Board's 2021 Guidance Advisory Opinion recommended that WMP's include an indication as to where the WMP and related

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>material can be found on the utility website. It does not appear that WMP information is readily available on Lodi's web site. The Board recommends that Lodi include a statement about where the WMP can be found in future WMPs and revise the web site to make a clear path to the WMP information.</p> <ul style="list-style-type: none"> The Board commends Lodi for engaging in a variety of wildfire mitigation strategies, despite having a low likelihood of catastrophic wildfire. These include bushing covers and covered leads to reduce contacts with energized parts, dead-front transformers, high-flash point natural ester transformer and switch fluids and undergrounding for new customers. The Board encourages Lodi to continue considering new strategies to reduce already low wildfire risks and looks forward to descriptions of those efforts in future WMPs.
Lompoc, City of	<ul style="list-style-type: none"> The Board appreciates Lompoc providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, eliminating the need for a separate informational request and response. The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Lompoc to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with a sentence about budget processes for any potential or expected mitigation expenses. The Board appreciates Lompoc's clear and prominent website location for the 2021 WMP and 2020 IE Report but encourages utility to also include a link to allow perusal of WMP history, that is – public access to former WMPs, The Board appreciates Lompoc's submittal of a "change" document as requested and the document makes clear that there were few if any changes between Lompoc's 2020 and 2021 WMPs. Other than the incorporation of appropriate informational response information as recommended above, the Board believes that

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>minimal changes are reasonable given Lompoc’s relatively low likelihood of catastrophic wildfire. The Board notes that the 2021 WMP still includes a leftover-from-the 2020 WMP suggesting that the revision is the “first iteration” of Lompoc’s WMP.</p> <ul style="list-style-type: none"> • The Board appreciates Lompoc’s proactive implementation and further examination of wildfire mitigation strategies in the somewhat limited HFTD area, such as replacement of high-voltage mechanical connections, installing non-expulsion fuses, over insulation, installation of wildlife protection equipment, looking at arc suppression components, undergrounding, wire-break sensors and arc detection technology, undergrounding, and steel poles to replace wood poles at end of useful life. The Board looks forward to updates in future WMPs about Lompoc’s progress in these activities. • The Board notes that Lompoc’s 2021 WMP does not provide much discussion of increased risks and consequent altered mitigation strategies due to climate change and encourages greater attention to this important risk driver in future WMPs.
<p>Los Angeles Department of Water and Power</p>	<ul style="list-style-type: none"> • The Board appreciates that LADWP provided an informational response to the Board’s 2021 Guidance Advisory Opinion. In future WMPs, the Board encourages LADWP to include the upfront template, and cross-reference tables, and other guidance recommendations as appropriate within the WMP itself, avoiding the need for a separate informational response. • The Board notes that the 2021 Guidance Advisory Opinion suggested that the WMP and related information should have a prominent and easily locatable website location. LADWP’s website meets this standard, including not only the 2021 WMP but also links to previous WMPs and IE Reports. The Board encourages LADWP to continue to provide comprehensive WMP and IE Reports on its website for easier public and Board examination of progress. • The Board appreciates LADWP’s submittal of a “change” letter to help guide Board review of their 2021 WMP. It makes clear that LADWP is taking annual updates seriously, making substantive changes and adding relevant information in several places in the 2021 WMP. The Board encourages LADWP to continue to

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>substantively update annual WMPs as appropriate in response to changing conditions and to Board advisory guidance.</p> <ul style="list-style-type: none"> • The Board appreciates and commends LADWPs updated description of vegetation management practices in the 2021 WMP, the expansion of the program and the clear defining of this task as a utility priority is greatly encouraged by the Board. LADWPs WMP states that the approximately 350,000 trees within LADWP's inventory are actively managed and mitigated through a professional arborist and line clearance professionals. The plan highlights LADWP's environmentally friendly approach to vegetation management, opting to prioritize "hands on" mechanical line clearance, branch removal, tree Removal, and brush clearing practices over use of herbicides, to avoid impacts on water contamination, biodiversity, and human health. • The Board appreciates LADWP's updated asset information which gives a fuller and more accurate assessment of its risk profile. Separate identification of circuits within the Owens Valley service territory allows for better deployment of protocols for blocking essential reclosers and replacing conventional fuses with non-expulsion fuses where they are the most effective. • The Board is impressed by LADWP's workforce training protocols, where LADWP has implemented training within its workforce to specifically address the issue of wildfire risk and mitigation of such risk. This training has included Identification of what high fire conditions look like and potential sources of ignition associated with LADWP infrastructure. • The Board notes that within the arena of community outreach and public awareness LADWP appears to express the bare minimum to meet what the Board would consider a responsible utility protocol. The narrative provided within the 2021 update is not expansive enough to perform a viable examination and reliably evaluate communication metrics. The Board is not requesting a wordy explanation of LADWP's protocols, just enough salient tidbits to get a clearer picture of how they have prepared their customers and themselves for the possibility of a significant wildfire within their territory. Questions left to be answered are whether there are community resources available for displaced customers in the event of an evacuation and what is the status of resource centers

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>and logistical planning for such during a PSPS event. The Board views LADWP as a proficient POU but believes that in the 2021 WMP they have missed the opportunity to articulate their full capabilities in this area.</p>
<p>Merced Irrigation District</p>	<ul style="list-style-type: none"> • The Board appreciates Merced providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Merced to include an adoption resolution or similar approval documentation, along with a sentence or two about public participation and comment and about budget processes in future WMPs. • The Board appreciates Merced's clear and prominent website location of the previous WMP and IE Report but encourages Merced to revise the link to point to the latest WMP and IE Report and other more recent WMP information, while continuing to include links to older WMPs and IE Reports. The Board also encourages a paragraph describing where that information may be found on the website within future WMPs. • The Board appreciates Merced's submittal of a "change" letter to help guide Board review of their 2021 WMP. The letter notes that no actual changes were made to the 2020 WMP to create the 2021 WMP, but describes additional information supplied in the supplemental response. The Board encourages Merced to update within actual future WMPs appropriate responses to Board advisory guidance. The Board also encourages updating of results metrics from year to year, as recommended in Merced's 2019 IE Report. • The Board recognizes that, due to its location outside of high fire threat areas and substantial undergrounding, Merced has a very low likelihood of experiencing catastrophic wildfire in general. As a result, the Board understands the relatively minimal and formulaic WMP and encourages Merced to consider any innovations and updates that make sense for their area in future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> The Board would like to better understand Merced's relationship to and/or reliance on Turlock Irrigation District, including as Merced's balancing authority. Turlock has indicated PSPS events in their service territory and the Board desires a better understanding about alternative power supplies available to Merced and why Turlock has not indicated to Merced a risk of PSPS affecting their service territory.
Modesto Irrigation District	<ul style="list-style-type: none"> The Board appreciates Modesto providing an informational response to the Board's 2021 Guidance Advisory Opinion, and particularly including the relevant additional information from the informational response in Modesto's 2021 WMP – a “best practice” which avoids the need for a separate informational request and response. The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Modesto's WMP states that Modesto's Board approves the WMP but does not have much detail on the process or public comment accommodation. The Board encourages Modesto to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses. The Board appreciates Modesto's clear and prominent website location for the 2021 WMP but encourages utility to also include a link to allow perusal of WMP history, that is – public access to former WMPs and IE Reports. The Board also appreciates the inclusion of a link to the WMP information in the 2021 WMP itself. The Board appreciates Modesto providing a “change” document as requested to help focus Board review of the 2021 WMP, and it is clear from the change document that Modesto took the update seriously and incorporated Board advisory guidance recommendations. The Board encourages Modesto to continue to materially update future WMPs. The Board encourages Modesto to include more information about the potential impacts of climate change on wildfire risks in future

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>WMPS, noting that some of Modesto's "expanded" territory (also served by PG&E) abuts Tier 2 HFTD area.</p> <ul style="list-style-type: none"> <li data-bbox="412 384 1487 653">• The Board appreciates Modesto's mitigation actions, even with a relatively low likelihood of catastrophic wildfire, and looks forward to further updates and additional information about programs such as replacing wood poles with composite poles, replacing older copper conductor, adding new exempt fuses and replacing older expulsion fuses, adding avian protection features, replacing oil circuit breakers, and avoiding reclosers within HFTD areas. <li data-bbox="412 695 1487 963">• The Board desires a better understanding why Modesto does not believe they will be impacted by an IOU PSPS or other power supply failure and how they as a utility manage such impacts. While Modesto appears to have determined that planning for a self-initiated PSPS is not an overall benefit to their customers it is not clear to the Board that they will not be subject to a PSPS event initiated outside their territory.

Moreno Valley Utility

- The Board appreciates Moreno Valley providing an informational response to the Board's 2021 Guidance Advisory Opinion and Moreno Valley's integration of some aspects of the informational response in the 2021 WMP, including the upfront context template. The Board notes that a more complete integration was possible, for example including the statutory cross-reference from the informational response. The Board also notes that the context information in the 2021 WMP appears inconsistent with the fire threat and Calfire maps added to the 2021 WMP (which the Board appreciates) as well as the context template in the informational response. In the 2022 WMPs and beyond, the Board encourages Moreno Valley to more completely integrate the informational response information.
- The Board's appreciates Moreno Valley's inclusion of adoption and budget information in the 2021 MWP as recommended in the Board's 2021 Guidance Advisory Opinion. Requested information about the adoption and public comment processes for WMPs.
- The Board's 2021 Guidance Advisory Opinion requests that WMP information be posted in a clear and prominent website location. Moreno Valley's links to WMP information are difficult to find on their website. The Board encourages Moreno Valley to more clearly link to not only the 2021 and subsequent WMPs but also to former WMPs and IE Reports to allow tracking of WMP progress by the public (and notes that the link to the IE report in the informational response does not work).
- The Board appreciates Moreno Valley's submittal of a "change" document to the Board to focus review as requested. The Board can observe some significant changes, including integrating part of the informational response information, and believes that the level of changes are reasonable in an "update year" given Moreno Valley's relatively low likelihood of causing catastrophic wildfire (due to undergrounding, despite significant HFTD areas within the service territory).
- The Board appreciates Moreno's IE of the 2020 WMP by the Moreno Valley Fire Department. Given the relatively low likelihood of catastrophic wildfire for Moreno Valley, this may be sufficient, but In future WMPs, Moreno Valley should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: [OEIS : Case Log](#).

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal

Needles, City of

- The Board appreciates Needles providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response.
- The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. While Needles included adoption information in the 2020 WMP, including the adoption resolution, that was not included for the 2021 WMP. The Board encourages Needles to include adoption information in future WMPs that describes the adoption and public comment processes Needles followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses.
- The Board's 2021 Guidance Advisory Opinion suggests that utilities link to WMP information in a clear and prominent website location and Needles' informational response indicates that has happened or will happen, but the Board can find no evidence of website presence for the WMP information. The Board encourages Needles to provide a clear and prominent WMP page that includes older as well as current information to allow perusal of WMP history, that is – public access to former WMPs and IE Reports,
- The Board appreciates Needles' IE of the 2020 WMP by the San Bernadino Fire Protection District. Given the relatively low likelihood of catastrophic wildfire for Needles, this may be sufficient, but In future WMPs, Needles should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: [OEIS : Case Log](#).
- While Needles did not submit a "change" document to the Board to focus review as requested, the Board can observe that there were few if any substantive changes between Needles' 2020 and 2021 WMPs. Other than the incorporation of appropriate informational response information as recommended above, the Board believes that minimal changes are reasonable given Needles' low likelihood of catastrophic wildfire.
- The Board appreciates Needles providing metric results for 2019

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>and 2020 in the 2021 WMP and encourages Needles to also include results of inspections and maintenance work in the last year as metrics of operational performance to reduce risks.</p>
<p>Northern California Power Agency</p>	<ul style="list-style-type: none"> • The Board commends NCPA for a well-written and comprehensive WMP, which clearly and logically lays out NCPA's wildfire risks and extensive program efforts to reduce those risks. • The Board appreciates NCPA's incorporation of the 2021 Guidance Advisory Opinion recommendations within the 2021 WMP and consideration of such in the 2021 Independent Evaluation Report. With this "best practice" treatment, no separate informational response was necessary. The Board encourages similar treatment in NCPA's 2022 and subsequent WMPs, • The Board's 2021 Guidance Advisory Opinion recommended that the WMP and related information should have a prominent and easily locatable website location. NCPA's 2021 WMP meets this standard but historical information (other than included in the 2021 WMP) is not found. The Board encourages NCPA to include links to the historical 2020 WMP and the 2019 Independent Evaluation report in the website information, and a paragraph or line in the WMP itself that describes the website location of this information. • The Board appreciates NCPA's submittal of a "change" letter to help guide Board review of their 2021 WMP. The change letter makes clear that NCPA incorporated significant changes in the 2021 WMP in response to the Board's guidance recommendations and the Independent Evaluations performed, and the Board encourages NCPA to continue to make future WMPs living document with up-to-date information about wildfire risks and reduction strategies. • The Board appreciates the direct and clear attention paid in NCPA's 2021 WMP to the impacts of climate change on wildfire risks and encourages NCPA to continue tracking impacts of climate change and related wildfire risks to consider how those changes may affect mitigation responses.
<p>Oakland, Port of</p>	<ul style="list-style-type: none"> • The Board appreciates the Port of Oakland providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template,

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>cross-reference table (with links), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response.</p> <ul style="list-style-type: none"> • While the Port of Oakland's WMPs do not go beyond statutory requirements nor document any significant new initiatives to reduce wildfire risk beyond normal vegetation management and system inspection work, the Board believes that this path is reasonable given the Port of Oakland's very low likelihood of catastrophic wildfire. • The Board appreciated many POUs submittal of a "change" letter or "redline" document to help guide Board review of their 2021 WMP but received no such information from the Port of Oakland. Nevertheless, an examination of the Port of Oakland's 2020 versus 2021 WMPs indicates that very little has changed between the two WMPs. In fact, both WMPs include the statements that ... "This is the first year of a Port WMP. Therefore, there are no previous metrics." It would also appear that no changes in response to the Board's 2021 Guidance Advisory Opinion were made for the 2021 WMP. While the Port of Oakland has very low likelihood of catastrophic wildfire, the Board nevertheless encourages the Port of Oakland to consider recommendations from the Board and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board notes that the 2021 WMP states that the 2020 WMP was submitted to the Board of Port Commissioners but not approved and was then posted in draft form on the website. The Board is unclear about the approval and public comment procedures expected by the Port of Oakland for their WMPs and encourages the Port of Oakland to clarify and incorporate this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated. • The Board appreciates the Port of Oakland's clear pointer to WMP information on the utilities page of the website but notes that apparently the 2021 WMP and any information about the 2019 IE Report are not present there – rather, only the initial, draft WMP is found. The Board encourages the Port of Oakland to continue to provide public-facing information for all aspects of the WMP

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>process, including the current version of the WMP, historical WMPs, and IE Reports.</p> <ul style="list-style-type: none"> The Board notes that the Port of Oakland has apparently not submitted any information about an IE Report nor posted such information on the website, leaving that information difficult if not impossible to access. The Board also encourages closer attention to public and Board access to IE information, and a paragraph describing where that information may be found on the website within future WMPs.
Palo Alto, City of	<ul style="list-style-type: none"> The Board appreciates the comprehensiveness and detail in Palo Alto's 2021 WMP, although the WMP is little changed from 2020. The WMP gives clear and detailed descriptions of staffing and responsibilities for wildfire mitigation. In particular, the Foothills Fire Management Plan component exhibits best practice planning and collaboration. The Board appreciates Palo Alto providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements (such as the WMP adoption process description) included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. The Board appreciates the submittal of a redline document showing changes between the 2020 and 2021 WMPs, though there were not significant changes. The Board recommends that the practice of submitting redline or changes documents to aide review continue in future WMP update cycles and possibly for the 3-year major revisions. The Board notes that it makes little sense for a 2021 document to discuss plans and projects described as 2019 and 2020 initiatives in prospective terms, as if they have not been completed. The Board would appreciate a more comprehensive update of the WMP to enable the Board to clearly track progress and be able to provide more relevant guidance. The Board appreciates reference in the informational response linking to the website location of the 2019 independent evaluation. However, the Board's recommendation was actually that the WMP itself have a prominent place on the website. Palo Alto's WMP

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>information on the website is not clearly found without a search. Future WMPs should include web location information directly to aid the public and the Board. Palo Alto should consider creating a more direct link to WMPs on the webpage.</p> <ul style="list-style-type: none"> • The Board encourages Palo Alto to provide additional detail about updates to the WMP over time, particularly in the 2023 comprehensive revision. It is unclear to the Board exactly how much progress has been made on vegetation management, situational awareness, and grid hardening projects without more comprehensive and updated information about what has been accomplished in the past annual cycle. The brief updates found in Appendix F do not provide enough detail to understand the current wildfire safety status of the utility. • While it is clear to the Board that Palo Alto takes wildfire mitigation seriously and considers and at times implements significant mitigation measures over time, there is not much discussion of how changes in climate or vegetation conditions may alter risk nor of innovative practices, such as building hardening or strategic irrigation to reduce ignition risk where appropriate. Other utilities have had success with drone inspections; Palo Alto has suggested that the technology does not work for them, and the Board encourages revisiting this technology or explaining in more detail why it is inappropriate in this case. • The Board appreciates and commends Palo Alto's proactive attention to consideration of pumping water uphill in preparation for a potential wildfire and/or PSPS event.
<p>Pasadena Water and Power Department</p>	<ul style="list-style-type: none"> • The Board appreciates Pasadena providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Pasadena to provide a short paragraph in future WMPs that describes the adoption and public

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>comment processes that Pasadena followed for submittal of the WMP. Pasadena has provided a descriptive sentence about City Council adoption in the informational response which could be embellished slightly and included in future WMPs along with progress related to the budget information added to the 2021 WMP.</p> <ul style="list-style-type: none"> • The Board cannot find information on Pasadena's website about any aspect of wildfire mitigation. The Board encourages Pasadena to include a link to WMP information, including the 2020 and 2021 WMPs as well as ancillary documents like IE reports and separate submittals to the Board. Pasadena appears not to have contracted for an independent evaluation of its 2020 or 2021 WMPs, and the Board encourages that delayed step to be taken. Of course, the 2022 WMP when available should also be posted to provide for Board and public review of progress. • The Board appreciates Pasadena's submittal of a "change" document to focus the Board's review and notes in particular the new risk section, information about assets in Tier 2 and Tier 3 HFTD, and new wildfire mitigation budget information. Again, the Board encourages information as appropriate from the informational response to be included in the WMP itself and looks forward to updates in future WMPs about progress on the Capital Improvement Project and master plan. • The Board appreciates Pasadena's listing of wildfire mitigation design requirements, including installing covered conductors in some cases, replacing low voltage open wire with covered triplex conductor, installing more robust higher wind loading poles, increased conductor spacing, and undergrounding of primary system assets in the Tier 3 HFTD.
Pittsburg Power Co (Island Energy)	<ul style="list-style-type: none"> • The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Pittsburg. In Pittsburg's 2022 and subsequent WMPs, the utility should include the upfront template and table indicating where in the WMP statutory requirements can be found and add other information pursuant to the December Guidance document as appropriate.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates inclusion of the adopting resolution for Pittsburgh’s 2021 WMP. Pittsburgh should consider adding a short paragraph in its subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated, as recommended in the Board’s 2021 Guidance Advisory Opinion. • The Board appreciates Pittsburgh’s submittal of a “change” letter to help guide Board review of their 2021 WMP but is surprised that the letter indicates no changes were necessary except for the date. Pittsburgh’s 2020 WMP mentioned activities that would occur in 2020, such as implementation of an “Everbridge” email and text notification system to communicate power shutoff and other wildfire related messages to customers and, Pittsburgh’s informational response indicates the Everbridge system is being used, but this is not reflected in the “unchanged” 2021 WMP. The Board believes that the annual WMPs filed should be updated to reflect the status of promised projects such as this. The Board encourages Pittsburgh to reflect updates to critical wildfire mitigation measures and communication protocols in the 2022 and subsequent WMPs. • The Board notes that the Independent Evaluation submitted for the 2021 WMP is in fact the initial WMP IE written in 2019, which minimally covers the 2020 WMP’s compliance with the provisions of PUC 8387(b). The Board has recommended that IEs perform a robust evaluation of the contents and substance of the WMPs and encourages Pittsburgh to engage with a qualified IE for the 2022 and future WMPs. • The Board notes that the 2019 IE report mentions a brush fire caused by downed power lines due to a sabotaged pole. Pittsburgh’s WMP suggests that such incidents will be included as a supplemental narrative description to the “wires down” metric but has not done so in this case. The Board asks that Pittsburgh include such incidents in future WMPs or explain why it has not. • The Board appreciates that Pittsburgh’s WMP includes a list of wildfire risks but notes that the statute requires description and prioritization of those risks in the WMP, such description appears to be lacking in Pittsburgh’s 2021 WMP. Although the Board recognizes that due to location and substantial undergrounding of circuits

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>Pittsburg's wildfire risk appears low, the Board encourages Pittsburg to describe wildfire risks in more detail.</p> <ul style="list-style-type: none"> • Pittsburg's WMP states that the POU has "self-performed" in determining areas that are at an elevated risk of power line wildfire but there is no description of what that process included. The Board encourages Pittsburg to include additional detail about their wildfire risk determination process, including whether any inclusion of changing conditions due to climate change or other developments over time are considered. • Pittsburg's WMP states that their system is designed to industry standards but contains little to no detail about any grid hardening measures or other grid construction preventative strategies. The Board would appreciate additional information about whether Pittsburg is engaged in or considering measures such as further undergrounding, updating from expulsion fuses, etc.
<p>Plumas-Sierra Rural Electric Co-Op</p>	<ul style="list-style-type: none"> • The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Plumas-Sierra. In Plumas-Sierra's 2022 and subsequent WMPs, the utility should include the upfront template and table indicating where in the WMP responses to statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. • The Board appreciated many POUs submittal of a "change" letter or "redline" document to help guide Board review of their 2021 WMP but received no such information from Plumas-Sierra. Nevertheless, an examination of Plumas-Sierra's 2020 versus 2021 WMPs indicates that fairly little was changed in the 2021 WMP compared to the 2020 WMP. The Board notes some additional words about the impacts of climate change and some additional description of the Plumas-Sierra service territory and conditions, amounting to about a page more in the 35-page WMP. The Board encourages Plumas-Sierra to reflect relevant updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision, and particularly in response to the Board's 2021 Guidance Advisory Opinion and subsequent recommendations and any Independent Evaluation recommendations.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requests a short paragraph about the approval process and public comment process for WMPs. The Board notes that Plumas-Sierra's 2021 WMP does not really describe that adoption or public participation in that process. Plumas-Sierra should consider incorporating this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated. • The Board's 2021 Guidance Advisory Opinion recommends that utilities post WMP information prominently on their websites and include a paragraph in the WMP itself pointing to the website location. Plumas-Sierra's does not appear to have such a prominent posting site, making it difficult for the Board and public to find WMP information. The Board encourages Plumas-Sierra to provide public-facing information for all aspects of the WMP process, including current as well as previous versions of the WMP, IE Reports, and other WMP information as appropriate, placed on the website in an obvious location. The Board also encourages a paragraph within future WMPs describing where that information may be found on the website. • The Board cannot see any evidence that an Independent Evaluation was developed and presented to Plumas-Sierra's Board or posted on the website, for either the 2020 or the 2021 WMPs, and the Board encourages Plumas-Sierra to either follow through on this obligation or point the Board to evidence that it has occurred. • The Board notes that Plumas-Sierra's WMPs have very little information about changing risks due to climate change. The Board encourages Plumas-Sierra to consider the impacts of climate change on the fire season and other fire risks in future WMPs. • The Board appreciates Plumas-Sierra's information about wildfire mitigation programs and practices in the 2021 WMP, including descriptions of heavy loading construction standards, protection zone management, reclaiming rights of way for better access, unmanned drone inspections, new service required to be undergrounded, and use of FR3 insulating oil. The Board is looking forward to additional progress on the evaluation of legacy tree attachments. The Board commends the practice of sharing costs if customers desire to underground service to the premises and replacing legacy tree attachments with free poles at customer

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>request. The Board looks forward to updated information about Plumas-Sierra mitigation programs and understanding of relative risks, including risks of de-energization versus fire danger in more detail.</p> <ul style="list-style-type: none"> The Board notes that Plumas-Sierra suggests that their WMP only applies to the relatively low percentage of assets in the extreme or Tier 3 Fire Threat area but appears to have written the WMP more broadly to apply to the entire system. The Board looks forward to clarification on this point in future WMPs.
<p>Power and Water Resource Pooling Authority</p>	<ul style="list-style-type: none"> The Board appreciates PWRPA providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and table indicating where in the WMP statutory requirements can be found should be included in the WMP itself, avoiding the need for a separate informational request and response. The Board appreciates the submittal of a redline document showing changes between the 2020 and 2021 WMPs, though there were not significant changes. The Board recommends that this practice continue to aid future Board reviews of WMPs. The Board appreciates reference in the informational response showing the website location of the WMP. Future WMPs should include this reference directly to aid the public and the Board. PWRPA should consider creating a more direct link to WMPs on the webpage. The Board appreciates the information in the WMP regarding review of the plan for acceptable fire risk by the Hamilton and Sacramento fire chiefs. Given the low likelihood of catastrophic wildfire for PWRPA, this may be sufficient, but In future WMPs, PWRPA should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: OEIS : Case Log. The Board appreciates the description included in the informational response about PWRPA customer notification procedures and potential for being affected by PSPS from PG&E. The Board recommends that this information be included in future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> The Board recommends that PWRPA provide further information, if available, about the potential impact of power shutoffs on water pumping customers of its members, particularly if any water that may be used to fight wildfire may be affected. The Board appreciates the site-specific information cards included in PWRPA's WMP, this information is helpful for our review.
Rancho Cucamonga Municipal Utility	<ul style="list-style-type: none"> The Board commends Rancho Cucamonga for including an informational response to the Board's 2021 Guidance Advisory Opinion within the 2021 WMP. This "best practice" avoids the need for a separate informational request and response for this information. The Board appreciates Rancho Cucamonga's clear and prominent website location for WMP information but notes that the link is only to the initial 2020 WMP (which includes an independent evaluation). The Board encourages Rancho Cucamonga to also include the 2021 WMP in this website information to allow perusal of WMP history and Rancho Cucamonga's informational response (which is included in the 2021 WMP). The Board appreciates Rancho Cucamonga's provision of a "change" document to focus the Board review of the 2021 WMP. The change document indicates there were few substantive changes between utility's 2020 and 2021 WMPs other than the incorporation of appropriate informational response information. The Board believes that minimal changes are reasonable given Rancho Cucamonga's low likelihood of catastrophic wildfire. The Board appreciates the information in Rancho Cucamonga's WMP (2020) regarding review of the plan for acceptable fire risk by the local Fire District. Given the low likelihood of catastrophic wildfire for Rancho Cucamonga this may be sufficient, but In future WMPs, Rancho Cucamonga should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: OEIS : Case Log.
Redding Electric Utility,	<ul style="list-style-type: none"> The Board appreciates Redding providing an informational response to the Board's 2021 Guidance Advisory Opinion as an Appendix to the 2021 WMP. In the 2022 WMPs and beyond, the

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
<p>City of Redding</p>	<p>upfront template, cross-reference table, and other enhancements included in the informational response should be incorporated in the appropriate sections of the WMP itself, preventing the need to look at both the WMP and the Appendix to get a full response picture.</p> <ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Redding's Informational Response in Appendix G contains a good description of the City Council adoption actions but does not discuss public comment to any degree. The Board greatly appreciates Redding's provision of detailed budget information for their wildfire mitigation strategies. The Board encourages Redding to provide a short paragraph in future WMPs that describes the adoption, public comment, and any altered budget processes within the WMP itself. • The Board appreciates Redding's clear and prominent website location WMP information and applauds the detail and variety of documents available on that page. The Board encourages Redding to also include a link to allow perusal of WMP history, that is – public access to former WMPs, rather than pointing prominently to the new 2022 WMP. The Board appreciates the separate 2021 Auditing document and believes that will be useful for review of the 2022 WMP information in the latter half of the year. • The Board appreciates Redding's submittal of a “change” document including an explanation of changes and a redlined version of the WMP, as well as a “version history” section in the WMP itself – this was very helpful for review. Between utility's 2020 and 2021 WMPs. The Board looks forward to future WMPs including the informational response integrated into the WMP itself rather than as a separate appendix. • The Board applauds Redding's comprehensive description of wildfire mitigation strategies. The Board believes that Redding's multitude of current and future expected strategies seems appropriate for a utility that has significant Tier 2 and Tier 3 HFTD areas within their service territory. The Board looks forward to updates and progress reports on these strategies in future WMPs and associated information.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • One wildfire question that the Board encourages Redding to discuss more in future WMPs is the impact of climate change on wildfire risks and potential mitigation actions to address those increased risks. • The Board appreciates Redding's discussion of lack of impact from an IOU PSPS event, being interconnected to BANC and having their own generation as a backup power supply rather than sole or significant reliance on an IOU network. One further question the Board has is whether there are similar wildfire-related reliability concerns deriving from sources and systems such as the Western Area Power Authority and the U.S. Bureau of Reclamation that have significant footprints in the area around Redding.

**Riverside
Public Utilities
Department**

- The Board commends Riverside for not only providing an informational response to the Board's 2021 Guidance Advisory Opinion but also integrating many changes from that response into their updated 2021 WMP. This "best practice" avoids the need for a separate request and submittal of this information, simplifying review of the 2021 and future WMPs.
- The Board appreciates Riverside including a clear additional paragraph in their 2021 WMP that describes the adoption and public comment processes Riverside follows in the process of preparing and posting WMPs. The Board encourages Riverside to include some information about budget processes for any potential or expected mitigation expenses in future WMPs.
- The Board appreciates Riverside's relatively clear website location for the 2021 WMP and informational response but encourages Riverside to also include a link to allow perusal of WMP history, that is – public access to former WMPs and IE reports. The Board notes that Riverside has apparently not yet contracted for, received, or posted an IE Report for either the 2020 or 2021 WMPs and looks forward to an IE Report in the near future and for recommendations from that report to be incorporated in future Riverside WMPs.
- The Board appreciates Riverside's submittal of a "change" letter to the Board as requested and the Board can observe that significant thoughtful changes were incorporated in the 2021 WMP. The Board appreciates the rewritten wildfire risks and strategies portions of the WMP with additional maps and PSPS discussion. The Board also appreciates the comprehensive description of 2020 progress on wildfire mitigation strategies progress; including updating older substation automation protocols and adding three new weather, three new cameras, and a video network; as well as a comprehensive description of 2020 metric results.
- The Board commends Riverside's attention to the increased risks from climate change in the 2021 WMP including risks from dryer vegetation and hotter temperatures and from increased vegetation derived from wetter patterns at times. The Board encourages Riverside to also consider higher wind speeds and to connect these increased risks to appropriate wildfire mitigation strategies.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board commends Riverside for several good additional maps showing the interaction of high fire threat areas and wildland urban interface areas with the utility's service territory and mapped grid assets. • The Board appreciates the excellent new section describing the interaction and communication with SCE regarding wildfire risks and PSPS potential events. • The Board expects that the new weather stations and cameras will assist in Riverside's weather monitoring strategies and particularly appreciates the description of "big data" strategies, where outage assessment data can better inform risk assessment, predictive analysis, and equipment and upgrade decisions and looks forward to reporting on progress in this area in future WMPs. The Board is curious as to why Riverside only uses two weather operating conditions – normal and Red Flag – in comparison to other utilities that use additional conditions between normal and Red Flag. • The Board appreciates Riverside's inclusion of a new fuse policy section in the 2021 WMP but is curious about the lack of mention in the RFP of consideration of replacements of conventional expulsion fuses to reduce wildfire risk.
Roseville Electric Utility, City of Roseville	<ul style="list-style-type: none"> • The Board appreciates Roseville providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. The Board commends Roseville for including the upfront template and cross reference table in the recently filed 2022 WMP. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages utility to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with a sentence about budget processes for any potential or expected mitigation expenses.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates Roseville’s clear and prominent website location for WMP information. This page currently and appropriately shows the recent 2022 WMP and associated IE Report and the Board encourages Roseville to also include links to allow perusal of WMP history, that is – public access to former WMPs and IE reports, • The Board appreciates Roseville submitting a “change” document to focus the Board’s review of the 2021 WMP and understands that timing considerations prevented incorporation of changes derived from the December 2021 Guidance Advisory Opinion (e.g. -- changes now incorporated in the 2022 WMP) as requested. The Board can observe that there were not many substantive changes between utility’s 2020 and 2021 WMPs, which the Board believes is reasonable given Roseville’s relatively low likelihood of catastrophic wildfire. • The Board appreciates Roseville identifying “open space” as a potential area of wildfire risk in their service territory, which does not have any HFTD or areas per the CPUC map. The Board looks forward to more information about the open space being targeted in Roseville and the wildfire risks and mitigation strategies being applied in future WMPs. • While Roseville has indicated that their customers are unlikely to experience an IOU-related PSPS event. However, the Board would like a better understanding about where Redding’s generation and transmission comes from and whether there might be any wildfire-related planned or forced outage risks associated with those sources, along with Redding’s plans, if any, to address and mitigate these risks.
Sacramento Municipal Utility District	<ul style="list-style-type: none"> • The Board appreciates SMUD providing an informational response to the Board’s 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the Board encourages the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. • The Board’s 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board appreciates SMUD’s submittal of adoption

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>resolutions for the 2021 WMP but the Board encourages SMUD to provide a short paragraph in future WMPs that describes the adoption and public comment processes Utility followed for the WMP being submitted (including resolutions if feasible), along with information about budget processes for any potential or expected mitigation expenses.</p> <ul style="list-style-type: none"> • The Board appreciates SMUD's wildfire safety information page and 2021 WMP on the website but found the path to that page not that easy or intuitive. The Board encourages SMUD to have an easier to find wildfire safety link and to include additional wildfire safety information at that link, including not just the 2021 (or current) WMP but also include links to allow perusal of WMP history, that is – public access to former WMPs, IE reports, and any supplemental filings. The Board notes that SMUD's current link to the IE Report from 2019 does not appear to work. • The Board appreciates SMUD's submittal of a comprehensive "change" letter to focus the Board's review of SMUD's 2021 WMP. It is clear that SMUD takes the annual WMP updates seriously and has made many significant changes from the initial 2020 WMP. The Board encourages SMUD to continue to include appropriate changes that reflect changing programs, changing conditions, and changing risks, as well as incorporate changes recommended by the Board and any IE Report where feasible. For example, while SMUD provides an excellent narrative description of its service area, the Board would appreciate the inclusion of the up-front template developed in the Board's 2021 Guidance Advisory Opinion in future WMPs. • The Board commends SMUD for an exemplary description of comprehensive wildfire mitigation strategies in the 2021 WMP. The Board appreciates SMUD's many strategies in common with other POU's, including switching to non-expulsion fuses, replacing copper conductors where appropriate, and considering covered conductors and ductile iron poles. SMUD is also piloting unique and innovative mitigation strategies, such as AI equipment that may yield daily inspection information, new fire monitoring cameras on transmission towers, high-definition AI drone pictures, and consideration of distributed generation as an option to replace 4 KV lines in SMUD's HFTD hydro facilities. The Board looks forward to updates on these innovative strategies in future WMPs.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> The Board commends SMUD's extensive set of metrics for evaluating their WMP, including those in the 2021 WMP and the separate extensive metrics filing. The Board looks forward to substantive information on SMUD's progress by these metrics in future WMPs.
San Francisco Public Utilities Commission	<ul style="list-style-type: none"> The Board appreciates SFPUC providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. The Board notes that the 2021 Guidance Advisory Opinion suggested that the WMP and related information should have a prominent and easily locatable website location. SFPUC's 2021 WMP and related information meet this standard, but Information that has not been updated – such as the IE Report, is not easily found. The Board encourages SFPUC to include previous WMPs and IE Reports where feasible for easier public examination of progress. The Board appreciates SFPUC's submittal of a “change” letter to help guide Board review of their 2021 WMP. The change letter describes generally in what sections changes have been made or material added and makes it clear that material changes were made from the 2020 WMP. The Board encourages SFPUC to provide a bit more detail, perhaps a redline of the section, to help focus the Board's review. The Board appreciates the exemplary job that SFPUC's 2021 WMP does of describing wildfire prevention plans and strategies, including vegetation management practices, inspection protocols, and situational awareness and system hardening status and projects. The Board looks forward to learning of progress made on a variety of projects in the 2022 WMP, as promised in the 2021 WMP. The Board appreciates SFPUC's description of wildfire risk factors in their service territory and around their assets outside the service

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>territory. The 2021 WMP promises an update in 2022, and the Board looks forward to additional information and detail in this area.</p> <ul style="list-style-type: none"> The Board appreciates the clear and comprehensive description in the 2021 WMP of the process for public comment on SFPUC's WMP and the adoption process for the document.
Shasta Lake, City of	<ul style="list-style-type: none"> The Board appreciates Shasta Lake providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP), and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response. The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Shasta Lake to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses. The Board appreciates Shasta Lake's wildfire information on their website but notes that the information was not prominently located. The most recent, 2021 WMP is apparently not available at the site, which points to the older 2020 WMP and the 2019 IE report. The Board encourages Shasta Lake to develop a clear and prominent WMP page that includes the current WMP as well as older information, to allow the Board and public to track progress on wildfire mitigation. The Board appreciates Shasta Lake's submittal of a "change" letter and the significant updates to the 2020 WMP in the areas of wildfire risk descriptions and preventative strategies, as well as incorporation of the previously separate inspection plan and vegetation management plan as appendices. The Board encourages and looks forward to continued updates as appropriate in future WMPs. The Board notes that it would help the reviewer if the vegetation and inspection plan appendices were referred to in the appropriate sections in the main WMP and points

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>out that the 2021 WMP still has a reference to the WMP being the “first iteration.”</p> <ul style="list-style-type: none"> <li data-bbox="412 380 1495 730">• The Board is interested in more information about Shasta Lake’s contention that the Forest Service constrains their vegetation management plans based on aesthetic and environmental concerns and encourages Shasta Lake to consider alternatives to herbicide use and work with the Forest Service to resolve concerns. The Board is also interested in hearing more about Shasta Lake’s plans to shore up water supply during emergencies such as during the Carr fire, where hydrants may have lost ability to fight fires with a longer outage. <li data-bbox="412 772 1468 1041">• The Board would appreciate more information from Shasta Lake regarding the risk of generation or balancing authority supplies being interrupted by wildfire. Shasta Lake’s IE Report indicated a couple of PSPS events affecting a limited number of their customers and the Board believes Shasta Lake’s WMPs should better describe this risk and the mitigation actions the utility is considering or taking to address them.
<p>Silicon Valley Power, City of Santa Clara</p>	<ul style="list-style-type: none"> <li data-bbox="412 1085 1495 1354">• The Board appreciates many POU’s providing an informational response to the Board’s 2021 Guidance Advisory Opinion but did not receive such a submittal from SVP. In SVP’s 2022 and subsequent WMPs, the utility should include the upfront template and table indicating where in the WMP statutory requirements can be found and add other information pursuant to the December Guidance document as appropriate. <li data-bbox="412 1396 1503 1705">• The Board’s 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. SVP has not provided much information here, other than stating that annual WMPs will be “presented” to the City Council. SVP should consider adding a short paragraph in its subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated, as recommended in the Board’s 2021 Guidance Advisory Opinion. <li data-bbox="412 1747 1495 1894">• The Board appreciates SVP’s submittal of a “change” letter to help guide Board review of their 2021 WMP but the letter minimally describes changes, making it still difficult to see what has been altered. The Board encourages SVP to reflect updates more

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>completely in the 2022 and subsequent WMPs, particularly in the 2023 major revision.</p> <ul style="list-style-type: none"> • The Board notes that SVP has apparently not engaged an IE for either the 2020 or 2021 WMPs. SVP does not appear to have posted on their website or filed an IE Report with the Board for the 2020 or 2021 WMPs. SVP's WMPs suggest that an IE will be engaged to review, but there is no evidence that this has happened. The Board has recommended that IEs perform a robust evaluation of the contents and substance of the WMPs and encourages SVP to engage with a qualified IE for the 2022 and future WMPs. • The Board notes that SVP's WMPs do not contain information about where they can be found on SVP's website, and it appears that the WMPs are not easily, if at all, located on the SVP website. The Board's 2021 Guidance Advisory Opinion recommended that WMPs be posted in a prominent, easily located position on a utility's website. • The Board appreciates that SVP's WMP includes a list of wildfire risks, but notes that the statute requires description and prioritization of those risks in the WMP, such description appears to be lacking in SVP's 2021 WMP. Although the Board recognizes that due to the urban location of SVP's service territory and circumstances around SVP's remote transmission assets that SVP's likelihood of encountering catastrophic wildfire issues appears low, the Board still encourages SVP to describe wildfire risks related to the remote transmission assets in more detail and provide more description of interaction with PG&E's surrounding electric infrastructure assets. • The Board's 2021 Guidance Advisory Opinion requested information be included in WMPs related to supply shortages. SVP has indicated that the generation assets served by their remote transmission assets may not be available in some wildfire situations, and the Board recommends more detail about substitute assets, plans for continuing to supply power with those substitute assets, and any wildfire risks associated with that substitution. • The Board notes that descriptions of grid hardening and other mitigation measures are relatively sparse in SVPs WMP. The Board

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>requests information about any consideration of typical or innovative grid alterations, such as replacement of expulsion fuses, installing covered conductors, undergrounding, etc., particularly for SVP's assets in or near HFTD areas.</p>
<p>Stockton Utility, Port of Stockton</p>	<ul style="list-style-type: none"> • The Board appreciates many POU's providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from the Port of Stockton. In Stockton's 2022 and subsequent WMPs, the utility should include the upfront template and cross-reference table indicating where in the WMP statutory requirements can be found and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. • While the Port of Stockton's WMPs do not go beyond statutory requirements nor document any significant new initiatives to reduce wildfire risk beyond normal vegetation management and system inspection work, the Board believes that this path is reasonable given the Port of Stockton's low likelihood of catastrophic wildfire. • The Board appreciated many POU's submittal of a "change" letter or redlines document to help guide Board review of their 2021 WMP but received no such information from the Port of Stockton. Nevertheless, an examination of the Port of Stockton's 2020 versus 2021 WMPs indicates that very little has changed between the two WMPs, other than updating the ignition and lines down metrics to reflect zero instance in each case in 2020. The Board notes that no changes in response to the Board's 2021 Guidance Advisory Opinion were made for the 2021 WMP. While the Port of Stockton has low likelihood of catastrophic wildfire, the Board nevertheless encourages the Port of Stockton to consider recommendations from the Board and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. • The Board appreciates the inclusion of the adopting resolution for the Port of Stockton's 2021 WMP. The Board encourages the Port of Stockton to continue to incorporate this information within subsequent WMPs, describing the WMP adoption process and how public review and comment is accommodated.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> The Board appreciates the Port of Stockton's posting of the 2021 WMP on their website, and while it could be more prominent believes that the current structure is adequate. The Board notes that apparently the 2020 WMP and any information about the earlier IE Report are not present. The Board encourages the Port of Stockton to continue to provide public-facing information for all aspects of the WMP process, including the current version of the WMP, historical WMPs, and IE Reports. The Board appreciates the information in the WMP regarding review of the plan for acceptable fire risk by the Port of Stockton's Fire Marshall. Given the low likelihood of catastrophic wildfire for the Port of Stockton, this may be sufficient, but In future WMPs, the Port of Stockton should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: OEIS : Case Log.
Surprise Valley Electrification Corporation	<ul style="list-style-type: none"> The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Surprise Valley. Surprise Valley did include a cross-reference table indicating where in the WMP responses to statutory requirements can be found, In Surprise Valley's 2022 and subsequent WMPs, the utility should include the upfront template and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. The Board appreciated many POUs submittal of a "change" letter or "redline" document to help guide Board review of their 2021 WMP but received no such information from Surprise Valley. Nevertheless, an examination of Surprise Valley's 2020 versus 2021 WMPs indicates that very little, if anything, has changed between the two WMPs. The Board notes that no changes in response to the Board's 2021 Guidance Advisory Opinion were made for the 2021 WMP. The Board encourages Surprise Valley to review and incorporate recommendations from the Board and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision. The Board notes that while Surprise Valley's 2021 WMP states that the WMP and IE Report will be posted on the website but it appears that the WMP information is not easily, if at all, located on the Surprise Valley website. The Board's 2021 Guidance Advisory

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>Opinion recommended that WMPs and IEs be posted in a prominent, easily located position on a utility’s website.</p> <ul style="list-style-type: none"> • The Board appreciates the direct and clear attention paid in Surprise Valley’s 2021 WMP about climate change. The Board encourages Surprise Valley to continue to track the question of climate change and take the next step to consider how the changing climate may directly affect wildfire risks and potential mitigation strategies. For example, climate change could lead to longer fire seasons, higher wind speeds, and lower moisture content in vegetation, implying changes in wildfire strategies. • The Board commends Surprise Valley for a good description of its service area in the 2021 WMP as well as descriptions of wildfire mitigation strategies such as replacing expulsion fuses, considering drone inspections with IR, raptor nest relocations, restrictions on staff smoking during fire season, and a pilot GIS mapping project. The Board looks forward to updates on these strategies and consideration of additional strategies in subsequent WMPs. • The Board appreciates information about the opportunity for public comment on WMPs and the description of the Surprise Valley Board adoption process. However, the information seems left incomplete in both the 2020 and 2021 WMPs, as both state that minutes and public comments will be added in specific, blank areas of the documents, but those sections are still blank.
<p>Transmission Agency of Northern California</p>	<ul style="list-style-type: none"> • In general, the Board commends TANC for an extremely well-written and comprehensive WMP, which clearly and logically lays out TANC’s wildfire risks and extensive program efforts to reduce those risks. • The Board appreciates many POU’s providing an informational response to the Board’s 2021 Guidance Advisory Opinion but apparently did not receive such a submittal from TANC. In TANC’s 2022 and subsequent WMPs, the utility should include the upfront template and add other information pursuant to the 2021 Guidance Advisory Opinion as appropriate. • The Board notes that the 2021 Guidance Advisory Opinion suggested that the WMP and related information should have a prominent and easily locatable website location. TANC’s 2021

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>WMP and related information meet the highest interpretation of this standard by including surrounding text and links to the historical 2020 WMP and the 2019 Independent Evaluation report, all clearly laid out and easy to find. The Board encourages TANC to continue this exemplary practice in future WMPs.</p> <ul style="list-style-type: none"> • The Board appreciates TANC's submittal of a "change" letter to help guide Board review of their 2021 WMP. The change letter makes clear that TANC incorporated significant changes in the 2021 WMP, particularly in describing wildfire mitigation strategy progress and plans on an ongoing basis. • The Board appreciates the exemplary job that TANC's 2021 WMP does of describing wildfire prevention plans and strategies, including adding inspection personnel, new and innovative technology-aided inspection techniques, enhanced vegetation management practices, collaboration activities, and continued research into additional strategies. The Board looks forward to learning of progress made on a variety of projects in the 2022 and subsequent WMPs. • The Board appreciates the direct and clear attention paid in TANC's 2021 WMP to the impacts of climate change on wildfire risks. TANC's description of wildfire risk factors in was exemplary, including the assigning of a "risk owner" to each risk.
Trinity Public Utility District	<ul style="list-style-type: none"> • The Board appreciates many POUs providing an informational response to the Board's 2021 Guidance Advisory Opinion but did not receive such a submittal from Trinity. In Trinity's 2022 and subsequent WMPs, the utility should include the upfront template and add other information pursuant to the 2021 Guidance Advisory Opinion. • The Board appreciates the submittal of a "redline" document showing changes between Trinity's 2020 and 2021 WMPs and notes some significant changes but believes that a more complete update could have been submitted. For example, on page 75 of the WMP, Trinity promises an annual IE review – this does not appear to have been done. Similarly, on page 81, Trinity suggests that 2019 Board adoption minutes will be added, and this does not appear to have happened. In addition, it is not clear whether the conclusion recommendations of the 2019 IE have been addressed.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<ul style="list-style-type: none"> • The Board appreciates Trinity's adoption of innovative wildfire mitigation techniques such as drone inspections. From the 2021 WMP update, it appears, but is not 100% clear, that Trinity has expanded its drone resources. The Board encourages clarification here and continued examination of innovative techniques in future WMPs. • The Board appreciates Trinity's longstanding commitment and attention to wildfire prevention, which is apparent in the comprehensive Trinity WMP filing. Trinity also addresses changing conditions due to climate change and other factors and the Board encourages continuation of this practice. One question is whether Trinity's definition of the wildfire season on page 39 of the WMP may be extended in consideration of climate change. • The Board commends Trinity for dynamic consideration of advanced equipment and revised protocols to continue to reduce wildfire risk. For example, Trinity suggests that they are investigating radio-controlled reclosers rather than relying on manual reclosers, have incorporated LiDAR technology in their inspection protocols, are considering moving away from mineral oil transformer fluid use, and are moving away from expulsion fuses and tree attachments. The Board looks forward to additional information about progress in these areas in Trinity's future WMPs. The Board cautions Trinity to be careful reducing vegetation management practices as they move away from expulsion fuses. • The Board appreciates Trinity's treatment of defensible space information and protocols in the 2021 WMP but does not see any information about building hardening and construction to minimize ignition risk. The Board encourages Trinity to research and inform customers about these techniques. • The Board again appreciates Trinity's continual consideration of advancements and looks forward to more information in future WMPs about the WRAP program, the Outage Management System, SCADA adoption, and the Advanced Radio Communications programs being considered. • Trinity's WMP does a commendable job of describing metrics to be used to evaluate wildfire risk reduction programs and progress.

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>However, the WMP notes that section 8387(b)(2)(E) requires a discussion of how previously applied metrics have informed the WMP and promises that discussion in the 2021 update, which has apparently not occurred. The Board encourages Trinity to include historical results of metric tracking and discuss how they inform the current WMP. The Board is also curious about the reduction of the sub-transmission IR inspection metric to 25% and would appreciate inclusion of rationale for such significant changes in metrics.</p>
<p>Truckee Donner Public Utility District</p>	<ul style="list-style-type: none"> • The Board notes that Truckee Donner has significant Tier 3 and Tier 2 HFTD acreage in their service territory and believes it appropriate to treat the entire service area as if it is in a Tier 3 HFTD area, as stated in Truckee Donner’s 2021 WMP. • The Board appreciates that Truckee Donner provided a comprehensive informational response to the Board’s 2021 Guidance Advisory Opinion. The Board encourages Truckee Donner to continue to include and update as needed the upfront template and cross-reference tables at the beginning of future WMPs and include within future WMPs responses as appropriate to the Board’s recommendations, avoiding the need for a separate informational response. • The Board notes that the 2021 Guidance Advisory Opinion suggested that the WMP and related information should have a prominent and easily locatable website location. Truckee Donner’s 2021 WMP and related information meet this standard and the Board encourages Truckee Donner to include previous WMPs and IE Reports where feasible for easier public examination of progress. • The Board commends Truckee Donner’s clear and comprehensive description in the 2021 WMP of the adoption and public comment procedures followed as the WMP is developed and presented to Truckee Donner’s Board and encourages continuation of such description. • The Board appreciates Truckee Donner’s submittal of a “change” letter to help guide Board review of their 2021 WMP. The change letter makes clear that Truckee Donner incorporated significant changes in the 2021 WMP in comparison to the 2020 WMP and the

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>Board commends and appreciates this proactive updating of the annual WMP information.</p> <ul style="list-style-type: none"> • The Board appreciates the exemplary job that Truckee Donner's 2021 WMP does of describing wildfire prevention plans and strategies, including vegetation management practices, inspection protocols, and situational awareness and system hardening status and projects. The Board looks forward to learning of progress made on a variety of projects in the 2022 WMP, as promised in the 2021 WMP. • The Board appreciates the direct and clear attention paid in Truckee Donner's 2021 WMP to the impacts of climate change on wildfire risks and encourages Truckee Donner to continue to update future WMPs as ongoing climate change results in changed wildfire risks and mitigation practices. The Board wonders if Truckee Donner's consideration of "fire season" may extend in time beyond the June-December timeframe mentioned in the 2021 WMP. • The Board applauds Truckee Donner's ongoing wildfire prevention projects, including undergrounding all new construction, undergrounding of existing service drops with panel replacements, replacement of expulsion fuses over the next three years, installation of AMI and use of GIS Outage Management software, a robust SCADA system, use of FR3 insulating fluid, and use of covered primary jumper wire. The Board looks forward to progress updates on these programs and others, including consideration of remote recloser management systems, in the 2022 and future WMPs • The Board is particularly impressed with Truckee Donner's GIS-based, ranked re-energization of circuits after a de-energizing event and descriptions of customer and stakeholder communications in light of the new potential for safety power shutoffs from Nevada Power.
Turlock Irrigation District	<ul style="list-style-type: none"> • The Board appreciates Turlock providing an informational response to the Board's 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>WMP itself where appropriate, avoiding the need for a separate informational request and response for this information.</p> <ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board appreciates Turlock filing the adoption resolution for the 2021 WMP, however there is little information about public comment in the resolution or the WMP itself. The Board encourages Turlock to provide a short paragraph in future WMPs that describes the adoption and public comment processes utility followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses. • The Board appreciates Turlock's clear and prominent website location for the 2021 WMP but encourages Turlock to also include links to allow perusal of WMP history, that is – public access to former WMPs, IE reports, and other filings. • The Board appreciates Turlock's submittal of a "change" document to the WSAB to focus the Board's review of Turlock's 2021 WMP. It is clear from the change document that Turlock takes the annual updates seriously and intends to keep the Board and public abreast of progress towards wildfire mitigation activities. The Board looks forward to such "change" information in future Turlock WMPs. • The Board appreciates the discussion of climate change in Turlock's 2021 WMP, pointing out that longer fire seasons, longer droughts, and higher temperatures are likely over time. The Board encourages Turlock to take the next step and consider how such changes may affect wildfire mitigation activities. For example, would the likelihood of higher winds lead to changes in wind loading calculations for new construction and retrofits. • The Board was impressed by Turlock's inclusion of comprehensive vegetation, slope, and fire history maps. The maps brought clarity and useful information to the Board's understanding of wildfire risk in Turlock's service area. • The Board appreciates the excellent summary of 2019, 2020, and future mitigation plans in Turlock's 2021 WMP, including increased

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>frequency of inspections in fire zones, replacement of expulsion fuses, removal of lightning arrestors, installation of wire guards, pilot testing of drone IR inspections, trial use of steel or fiberglass poles in place of wood poles, replacement of copper conductors with lower hazard steel and aluminum conductors, increased wire clearance and installation of animal guards, FR3 fluids in transformers, and consideration of undergrounding, tree wire, new weather stations, and failing wire sensors. The Board looks forward to updates on these activities as well as any new concepts developed in Turlock’s future WMPs.</p> <ul style="list-style-type: none"> • The Board appreciates Turlock’s description of recent real-world experience with the SCU Complex fire, including the PSPS for affected customers, rerouting of a damaged distribution line, and replacing of damaged wood poles with fiberglass poles. The Board would appreciate further information about whether Turlock considered, or installed, an underground circuit for the rerouted line. • The Board commends Turlock on a comprehensive and clear description of metrics for evaluation of the WMP and mitigation strategies and looks forward to seeing progress based on these metrics.
Ukiah, City of	<ul style="list-style-type: none"> • The Board appreciates Ukiah providing an informational response to the Board’s 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template and other enhancements included in the informational response should be included in the WMP itself where appropriate, avoiding the need for a separate informational request and response for this information. • The Board’s 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Ukiah has not provided much information here, other than stating that annual WMPs will be “presented” to the City Council. Ukiah should consider adding a short paragraph in its subsequent WMPs describing the WMP adoption process and how public review and comment is accommodated, as recommended in the Board’s 2021 Guidance Advisory Opinion. • The Board appreciated many POU’s submittal of a “change” letter or “redline” document to help guide Board review of their 2021

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>WMP but received no such information from Ukiah. Nevertheless, other than the addition of Appendix A describing in more detail the promised “Wildfire Prevention Program”, which the Board appreciates, very little else has changed between the 2020 and the 2021 WMP. The changes recommended in the 2020 IE Report apparently were not included in Ukiah’s 2021 WMP. The Board encourages Ukiah to consider recommendations from the Board and the IE and make updates in the 2022 and subsequent WMPs, particularly in the 2023 major revision.</p> <ul style="list-style-type: none"> • The Board appreciates Ukiah’s clear and prominent website location of their 2021 WMP information, including the informational response as well as the WMP. The Board encourages Ukiah to continue to provide that public-facing information for all aspects of the WMP process, including previous versions of the WMP and IE Reports, and encourages a paragraph describing where that information may be found on the website within future WMPs. • The Board appreciates the number and description of strategies in the WMP and the promise of innovation and new wildfire risk reduction strategies apparent there. The Board encourages Ukiah to pursue the innovative strategies such as the Wildfire Prevention Program, undergrounding where there is prevalence of legacy trees, use of drones with IR and use of LiDAR inspection protocols, communication system upgrading, remote-controlled reclosers, and replacement of expulsion fuses, among others. The Board looks forward to updates on these and other wildfire prevention efforts in upcoming WMPs. • The Board looks forward to actual data on the metrics of ignitions caused and lines down in future WMPs. There may have been few if any instances of incidents relevant to these metrics in early years, but even including zeros and narrative descriptions of unusual events provides valuable information for the Board’s review and advisory guidance.
Vernon Public Utility, City of Vernon	<ul style="list-style-type: none"> • The Board appreciates Vernon providing an informational response to the Board’s 2021 Guidance Advisory Opinion. In the 2022 WMPs and beyond, the upfront template, cross-reference table (at the beginning of the WMP, and other enhancements included in the informational response should be included in the WMP itself where

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>appropriate, avoiding the need for a separate informational request and response for this information.</p> <ul style="list-style-type: none"> • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. The Board encourages Vernon to provide a short paragraph in future WMPs that describes the adoption and public comment processes Vernon followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses. • The Board appreciates Vernon's clear and prominent website location for the 2021 WMP, as well as the older 2020 WMP, which allows Board and public perusal of WMP history. However, the Board notes that Vernon's link to the IE Report from 2019 appears to be to just a cover letter, not the entire IE Report, and encourages Vernon to be more transparent about the IE Report of WMPs. • While Vernon did not submit a "change" document or "redline" document to the WSAB as requested, the Board can observe that there were few if any changes between Vernon's 2020 and 2021 WMPs. Other than the incorporation of appropriate informational response information as recommended above, the Board believes that minimal changes are reasonable given Vernon's relatively low likelihood of catastrophic wildfire.
<p>Victorville Municipal Utility Services</p>	<ul style="list-style-type: none"> • The Board appreciates Victorville providing an informational response to the Board's 2021 Guidance Advisory Opinion as an Appendix to their 2012 WMP. In the 2022 WMPs and beyond, the upfront template, cross-reference table at the beginning of the WMP, and other enhancements included in the informational response should be integrated within the appropriate sections of the WMP itself to ease review. • The Board's 2021 Guidance Advisory Opinion requested information about the adoption and public comment processes for WMPs. Victorville's WMP states that the WMP will be presented to the City Council but is silent on adoption and public comment. The Board encourages Victorville to provide a short paragraph in future WMPs that describes the adoption and public comment processes Victorville followed for the WMP being submitted, along

POU	WSAB Advisory Guidance for Each POU 2021 WMP Submittal
	<p>with information about budget processes for any potential or expected mitigation expenses.</p> <ul style="list-style-type: none"> <li data-bbox="412 384 1500 688">• The Board appreciates Victorville’s clear and prominent website location for the 2021 WMP (with informational response as an appendix) and the 2020 WMP (including the independent evaluation by the Fire Department). Providing historical WMPs and information on the website allows easier Board and public tracking of WMP efforts over time. The Board encourages continued inclusion of historical WMP information on the prominent wildfire web page. <li data-bbox="412 730 1500 1003">• While Victorville did not submit a “change” letter or “redline” document to the Board as requested, the Board can observe that there were few if any changes between Victorville’s 2020 and 2021 WMPs. Other than the incorporation of appropriate informational response information as recommended above, the Board believes that minimal changes are reasonable given Victorville’s relatively low likelihood of catastrophic wildfires. <li data-bbox="412 1045 1500 1312">• The Board appreciates the information in the Victorville 2020 WMP regarding review of the plan for acceptable fire risk by the local Fire Department. Given the low likelihood of catastrophic wildfire for Victorville, this may be sufficient, but In future WMPs, Victorville should consider augmenting review by engaging with a certified Independent Evaluator from the OEIS list, found at: OEIS : Case Log.

Utility Name	
Size in Square Miles	square miles
Assets	<input type="checkbox"/> Transmission <input type="checkbox"/> Distribution <input type="checkbox"/> Generation
Number of Customers Served	Customers
Customer Classes	<input type="checkbox"/> Residential <input type="checkbox"/> Government <input type="checkbox"/> Agricultural <input type="checkbox"/> Small/Medium Business <input type="checkbox"/> Commercial/Industrial
Location/Topography	<input type="checkbox"/> Urban <input type="checkbox"/> Wildland Urban Interface <input type="checkbox"/> Rural/Forest <input type="checkbox"/> Rural/Desert <input type="checkbox"/> Rural/Agriculture
Percent Territory in CPUC High Fire Threat Districts	<input type="checkbox"/> Includes maps % in Tier 2 % in Tier 3
CAL FIRE FRAP Map Fire Threat Zones	<input type="checkbox"/> Includes maps % Extreme % Very High % High
Existing Grid Hardening Measures	<input type="checkbox"/> Describes hardened & non-hardened infrastructure
Utility Fire Threat Risk Level	<input type="checkbox"/> High <input type="checkbox"/> Low <input type="checkbox"/> Mixed
Impacted by another utility's PSPS?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Mitigates impact of another utility's PSPS?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Expects to initiate its own PSPS?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Prevailing wind directions & speeds by season	<input type="checkbox"/> Includes maps <input type="checkbox"/> Includes a description

Comment-Response Table for 2022 POU Guidance Advisory Opinion

Commenting Entity	Comment	WSAB Comment Response
<p>Anaheim</p>	<ul style="list-style-type: none"> Notes that Board document seeks to learn of progress in Anaheim's mitigation plans; promises to provide updates in 2022 WMP Agree with Board comment that WMP information should be clear on website to allow easy public tracking of progress. 	<ul style="list-style-type: none"> The Board appreciates Anaheim's recognition of the request and promise to include material in their 2022 WMP. No change to document. The Board appreciates Anaheim's recognition of the Board's request and updating of the web site in response to add WMP material. No change to document.
<p>Burbank</p>	<ul style="list-style-type: none"> Agrees with Joint Association comments Will continue to review recommendations and incorporate where appropriate in future WMPs. 	<ul style="list-style-type: none"> The Board appreciates the agreement with JA comments. No change to document. The Board appreciates Burbank's promise to reflect where appropriate changes in future WMPs. No change to document.
<p>Joint Associations</p>	<ul style="list-style-type: none"> Development and adoption timing for WMPs may prevent some POUs from incorporating guidance in 2022; may be postponed to 2023 WMPs. WMPs are not the proper forum for describing or developing emergency communication protocols. 	<ul style="list-style-type: none"> The Board has indicated understanding of the timing issue given the varying timeframes for POU development and adoption of 2022 WMPs, and potential for inclusion in 2023 WMPs. No change to document. The Board understands and agrees that emergency communications are best left to the emergency structures in place. The Board only wishes to understand better the utility role

Commenting Entity	Comment	WSAB Comment Response
	<ul style="list-style-type: none"> • Resource adequacy is not a topic that the WMPs should address and is not the typical expertise of WSAB members. • POU's have discretion in choice of Independent Evaluators and those entities serve a different function for POU's than for IOUs. Hence, an entity on the OEIS list of certified evaluators is not necessarily best and the list itself is small and potentially limiting. Local fire chiefs/departments may have the best expertise to evaluate. • Where a POU has not adopted a PSPS protocol or developed plans to order PSPS events battery backup systems are not within the 	<p>in those instances, particularly with respect to power shutoffs to their customers. Document clarified to acknowledge primacy of standard emergency communications.</p> <ul style="list-style-type: none"> • The Board is not attempting to engage in resource adequacy or integrated resource planning but wishes to understand how POU's think about and plan for the impact on customers, and potential risks, when a wildfire causes loss of power or a PSPS occurs. Document clarified to indicate that the Board is not requesting resource planning within WMPs. • The Board agrees that POU's have discretion and that the OEIS list may not provide sufficient alternatives for POU IEs. Nevertheless, the Board encourages robust Independent Evaluation Reports that cover the issues of utility interaction with wildfires. The Board is unsure that all local fire departments have this expertise, so continues to encourage augmentation of POU IE efforts relying on these entities. No change to Document. • The Board agrees that there are many reasons for customer installation of battery backup systems that are unrelated to wildfires or PSPS events.

Commenting Entity	Comment	WSAB Comment Response
	<p>scope of a WMP and should not be a required element of an WMP.</p> <ul style="list-style-type: none"> • Transparency should be balanced against clarity and customer confusion. Only the most current WMPs should be easily accessible on POU websites. The Board could use redline documents to track progress. • POU, particularly smaller POU, are not fire scientists nor do they have the resources generally to employ technical experts in these areas. POU would welcome organized expertise here from the 	<p>Nevertheless, within WMPs the Board wishes to understand whether a POU has plans to develop, encourage, or rely on backup generation (not just batteries on-site) in wildfire conditions. Wildfire risks can be avoided or exacerbated in power shutoff situations, and the Board encourages POU to consider these questions in their WMPs. PSPS events in neighboring utilities should also be part of the picture. No change to Document.</p> <ul style="list-style-type: none"> • The Board agrees that the most current WMP is the most important to feature on a POU website and that redline information to the Board helps focus review. The Board disagrees that including links to older WMPs or to supplemental filings is potentially confusing to customers if described well. A POU's customers should have the option of tracking progress even more so than the Board if they so are inclined. No change to Document. • The Board agrees that POU have differential resources to bring to bear in the fire science arena. Nevertheless, the Board believes that fire and climate science expertise is highly important and increasing in importance. The Board is happy to work with the POU community

Commenting Entity	Comment	WSAB Comment Response
	Board or in webinars or workshops.	to better inform and distribute fire science expertise. No change to Document.
LADWP	<ul style="list-style-type: none"> IOUs and POUs differ greatly and so benefit from evaluation to differing appropriate standards. When referring to IEs, please add "... that are relevant and applicable to [POUs] after the words "... industry standards ..." 	<ul style="list-style-type: none"> The Board understands the significant differences that exist amongst POUs and between the POUs and IOUs in general. Phrases added to reflect POU-relevant standards.
SMUD	<ul style="list-style-type: none"> SMUD will integrate the context setting template at the beginning of the 2022 WMP. SMUD will include budget information in Chapter 10 of the 2022 WMP. SMUD is reviewing and revising its WMP webpage to make links to background and historical material more accessible. SMUD will provide a "plan to plan" summary of changes as a new appendix to the 2022 WMP. SMUD made a couple of other comments that signal WMP and metric changes as appropriate and which do not require a Board response. 	<ul style="list-style-type: none"> The Board appreciates SMUD's response to the Board's request. No change to Document. The Board appreciates SMUD's response to the Board's request. No change to Document. The Board appreciates SMUD's response to the Board's request. No change to Document. The Board appreciates SMUD's proposed inclusion of a "plan to plan" appendix. No change to Document.