MERCED IRRIGATION DISTRICT

WILDFIRE MITIGATION PLAN

2021 INFORMATIONAL RESPONSE

RESPONSES TO WILDFIRE SAFETY ADVISORY BOARD'S 2021 GUIDANCE ADVISORY OPINION

June 16, 2021

I. PURPOSE OF THIS 2021 INFORMATIONAL RESPONSE

The California Wildfire Safety Advisory Board (WSAB) issued the *Guidance Advisory Opinion for the 2021 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Cooperatives* ("2021 WSAB Guidance Advisory Opinion") on December 15, 2020. Merced Irrigation District (MEID) provides this document to the WSAB in order to respond to each of the recommendations included in the 2021 WSAB Guidance Advisory Opinion. POUs will provide a narrative response and/or a cross reference to the location in MEID's Wildfire Mitigation Plan (WMP) where the topic is addressed. Where the recommendation is not applicable to MEID, the response will provide a brief description supporting this conclusion.

II. CONTEXT SETTING INFORMATION

WSAB requested that POUs provide an informational table to assist the Staff and Board member in understanding the unique characteristics of each POU.

Table 1: Context-Setting Information

Utility Name	**Merced Irrigation District**	
Service Territory Size	258 square miles	
Owned Assets	☒ Transmission ☒ Distribution ☒ Generation	
Number of Customers Served	~13,000 customer accounts	
Population Within Service Territory	184,853 people	
Customer Class Makeup	*Number of Accounts*	*Share of Total Load (MWh)*
	86.8% Residential; 1.6% Government; 0.7% Agricultural; 10.8% Commercial; 0.1% Industrial	14.79% Residential; 10.91% Government; 0.82% Agricultural; 33.26% Commercial; 40.22% Industrial
Service Territory Location/Topography[1]	75.01% Agriculture 0.02% Barren/Other 0.00% Conifer Forest 0.00% Conifer Woodland 0.00% Desert	

[1] This data shall be based on the California Department of Forestry and Fire Protection, California Multi-Source Vegetation Layer Map, depicting WHR13 Types (Wildlife Habitat Relationship classes grouped into 13 major land cover types) *available at*: https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3.

	0.00% Hardwood Forest 0.15% Hardwood Woodland 12.05% Herbaceous 0.00% Shrub 12.09% Urban 0.68% Water
Service Territory Wildland Urban Interface[2] (based on total area)	4% Wildland Urban Interface; 1% Wildland Urban Intermix;
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	☒ Includes maps Tier 2: 0% Tier 3: 0%
Prevailing Wind Directions & Speeds by Season	Year 2020: Spring 6.31, Summer 7.23, Fall 4.20, Winter 3.89 (mph); source: www.wunderground.com
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 71 miles Overhead Trans.: 35.6 miles Underground Dist.: 405 miles Underground Trans.: 0 miles
Percent of Owned Lines in CPUC High Fire Threat Districts	*Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)*
	Tier 2: 0% Tier 3: 0%
	Overhead Transmission Lines as % of Total Transmission System (Inside and Outside Service Territory)
	Tier 2: 0% Tier 3: 0%
Customers have ever lost service due to an IOU PSPS event?	☐ Yes ☒ No
Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?	☐ Yes ☒ No
Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?	☐ Yes ☒ No

[2] This data shall be based on the definitions and maps maintained by the United States Department of Agriculture, as most recently assembled in *The 2010 Wildland-Urban Interface of the Conterminous United States*, *available at* https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf.

Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	☐ Yes ☒ No

III. CROSS REFERENCE TO STATUTORY REQUIREMENTS

WSAB requested that POUs provide a clear roadmap as to where each statutory requirement is addressed within the POU WMP.

Table 2: Cross References to Statutory Requirements

Requirement	Statutory Language	Location in WMP
Persons Responsible	**PUC § 8387(b)(2)(A):** An accounting of the **responsibilities of persons** responsible for executing the plan.	Section III.A Page 15
Objectives of the Plan	**PUC § 8387(b)(2)(B):** The **objectives** of the wildfire mitigation plan.	Section II Page: 11
Preventive Strategies	**PUC § 8387(b)(2)(C):** A description of the **preventive strategies and programs to be adopted by the local 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.	Section V.B V.C V.D Page 21
Evaluation Metrics	**PUC § 8387(b)(2)(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 that underlie the use of those metrics.	Section VII.A Page 26
Impact of Metrics	**PUC § 8387(b)(2)(E):** A discussion of how the **application of previously identified metrics** to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Section VII.B Page 27
Deenergization Protocols	**PUC § 8387(b)(2)(F): Protocols for disabling reclosers and deenergizing 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.	Section V.E AND V.F Page 24, 25
Customer Notification Procedures	**PUC § 8387(b)(2)(G):** Appropriate and feasible **procedures for notifying a customer** who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	Section VI Page 25
Vegetation Management	**PUC § 8387(b)(2)(H):** Plans for vegetation management.	Section V.C Page 21, 22

Inspections	**PUC § 8387(b)(2)(I): Plans for inspections** of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section V.D Page 24
Prioritization of Wildfire Risks	**PUC § 8387(b)(2)(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, operation, and maintenance of the local publicly owned electric utility's 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 electric utility's or electrical cooperative's service territory.	Section IV A and IV B Page 17,18
CPUC Fire Threat Map Adjustments	**PUC § 8387(b)(2)(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 identified in a commission fire threat map, and identification of where the commission should expand a high fire threat district based on new information or changes to the environment.	Section V.A Page 21
Enterprisewide Risks	**PUC § 8387(b)(2)(L):** A methodology for identifying and presenting **enterprisewide** safety risk and wildfire-related risk.	Section IV.C and VII.C Page 18-20, 27
Restoration of Service	**PUC § 8387(b)(2)(M):** A statement of how the local publicly owned electric utility or electrical cooperative will **restore service after a wildfire**.	Section VI Page25
Monitor and Audit	**PUC § 8387(b)(2)(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 implementation of 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, other applicable statutes, or commission rules.	Section VII.C, D, E Page 27, 28

Qualified Independent Evaluator	**PUC § 8387(c):** The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the Internet Web site of the local publicly owned electric utility or electrical cooperative, and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.	Section VIII Page 28

IV. WSAB GUIDANCE ADVISORY OPINION RECOMMENDATIONS

The WSAB Guidance Advisory Opinion identifies 14 specific recommendations that POUs are requested to address in their 2021 WMPs. As specified in Public Utilities Code § 8387(b)(1), each POU is required to perform a comprehensive revision to the POU's WMP at least once every three years. Pursuant to this guidance, the POUs will be updating their WMPs based on the direction of their local governing boards within this 3-year cycle. Because the WSAB's recommendations have been provided after the initial WMP submission, the POUs will have varying capacities to fully address each recommendation in their 2021 WMP. This Section IV restates each of the WSAB recommendations and provides an opportunity for each POU to do one or more of the following: (1) provide a narrative response to the recommendation; (2) provide a cross reference to where in the POU's WMP this topic is addressed; (3) describe why the recommendation is not applicable to the POU; or (4) inform the WSAB of the POU's intent to address the recommendation at the point of the POU's next comprehensive revision, occurring in either the 2022 or 2023 WMP.

A. Plan Structure

WSAB Recommendation #1: Provide context-setting information about the POU and provide a simple guide to where the statutory requirements are addressed within the WMP.

POU Response: See Sections II and III above.

WSAB Recommendation #2: Provide a short description of the POU's public review and approval (if required) for the WMP. This description may also include a brief explanation of the funding mechanisms for wildfire mitigation efforts.

POU Response: MEID is governed by a board of 5 elected directors. MEID's elected Board of Directors are responsible for the review and approval of the MEID WMP. This plan is presented to the elected Board of Directors in an appropriately noticed public meeting.

WSAB Recommendation #3: Identify where the POU has posted the most recent Independent Evaluator (IE) Report and if your POU plans to enhance future IE reports, please summarize in what ways.

POU Response: The most recent Independent Evaluator Report is found on MEID's website. MEID plans to use future IE reports for guidance in continuing development of the WMP.

WSAB Recommendation #4: Develop, in collaboration with POU industry associations, WMP guidelines for future WMPs, and understanding that it may take multiple cycles for POUs to integrate these recommendations into the WMPs.

POU Response: This document is intended to include, as appropriate, responses to the recommendations in the WSAB's Guidance Advisory Opinion for the POUs' 2021 WMP. This document also represents the combined effort of the POU industry associations to further the development of a template to respond to the WSAB's Guidance Advisory Opinion in a future reporting WMP cycle.

B. Customer Impacts

WSAB Recommendation #5: Describe the potential impact investor-owned utilities (IOU) public safety power shutoff (PSPS) events could have on POU customers and how the POU manages these impacts. For POUs that are also balancing authorities, describe the criteria for wildfire related de-energizations. Responses shall only provide aggregated information that does not provide customer-specific information or other potentially sensitive data.

POU Response: MEID's customers are unlikely to be directly impacted by an IOU PSPS event because MEID's balancing authority (TID) has not indicated a PSPS plan in our transmission and distribution area. MEID has deemed that there is a very low wildfire risk in our service territory and historically, there haven't been any wildfires caused by our infrastructure.

WSAB Recommendation #6: Describe the utility customer communication plans with respect to wildfires and PSPS, and in particular describe the methods, content and timing used to communicate with the most vulnerable customers, such as Access and Functional Needs (AFN) customers, medical baseline customers, non-English speakers, and those at risk of losing water or telecommunications service.

POU Response: Despite MEID's low risk of wildfire, MEID utilizes many forms of communication to inform our customers in case of an emergency or notification. MEID sends out letters in the mail as well as attempts to contact customers through phone. Door hangers are also used when needed to provide an immediate notification at the premise of each customer requiring notification. MEID posts updates to our website and Facebook group on a regular basis as another form of ongoing communication.

C. The Grid

WSAB Recommendation #7: Provide details on each POU's system hardening and grid design programs, including: (1) the goals of the programs and the risk any particular program is designed to mitigate; (2) approach to PSPS mitigation and prevention; and (3) identify any resource shortages.

POU Response: MEID's approach to grid hardening is discussed in Section III and V of MEID's WMP. The goal of MEID is to construct, maintain and operate our transmission and distribution system to provide safe, reliable and economical power to our customers. Approximately 85% of MEID's electric distribution is underground and MEID's electrical facility design is to continuing undergrounding new and existing electrical services. Currently, due to the low wildfire risk of MEID's service territory there are no PSPS in place. MEID does not currently face any resource shortages that pertain to system hardening and grid design. The POU performs a circuit-by-circuit analysis to identify essential facilities (and whether they have backup power) like hospitals, communication centers, and community resource centers.

WSAB Recommendation #8: Describe annual visual patrols on potentially impacted circuits and the risks the POU is inspecting for. Describe whether and how system inspections lead to system improvements. Describe line patrols before, during, and/or after a critical fire weather event, such as a Red Flag Warning with strong winds, or following a fire that burned in areas where electric facilities are or could have been impacted.

POU Response: MEID performs visual patrols on an annual basis on all of its electric assets. Field crews look for general wear and tear, damage, vandalism, and vegetation encroachment. Line patrols are not performed on an ad-hoc basis due to the low risk of wildfire and the absence of red flag warnings for all of MEID service areas with electric assets.

WSAB Recommendation #9: Describe options considered by POU (including through the joint efforts of the POU associations) to identify previously unidentified risks that could lead to catastrophic wildfires.

POU Response: The California Municipal Utilities Association (CMUA) will be holding a special meeting of its Wildfire Preparedness, Response, and Recovery Working Group this fall, which will be focused on risk drivers for power-line caused catastrophic wildfires and innovative mitigation options. CMUA plans to invite a broad range of utility staff, state agency staff (including the WSAB), industry experts, and academics to participate in this discussion. As part of this meeting, the working group will discuss unidentified wildfire risk drivers and mitigation measures that could address these risks. Based on the input provided during this meeting, CMUA will produce a publicly-available, post-meeting report that summarizes the group's conclusions and recommendations. MEID's staff will participate in CMUA's meeting and will discuss any changes that MEID has made to its operations in response to the conclusions and recommendations of the working group in a future WMP.

D. Risk Assessment

WSAB Recommendation #10: Describe the particular wildfire risks associated with system design and construction such as topography and location near the HFTD areas of another utility's service territory. Describe any G.O. 95 exempt assets and possible updates to G.O. 95 that could facilitate more resilient utility transmission and distribution assets.

POU Response: MEID's assessment of wildfire risks is discussed in Section IV of MEID's WMP. It is industry standard to run overhead transmission and distribution electrical lines to transfer electricity to the end customer, this comes with inherent risk. With MEID's service territory and electrical facilities located in low-risk zones the primary risk drivers are wires down near vegetation and vegetation to electrical line contact. Historically, MEID has not had any issues with these two risk drivers. The following provides responses to specific questions included in the WSAB's 2021 WSAB Guidance Advisory Opinion:

- Are there design or construction issues related to the utility's specific topography or geographic location that the Board should be aware of?

  POU Response: No

- How does the utility assess its risks associated with system design and construction?

POU Response: MEID designs and constructs their electric facilities to provide safe, reliable, affordable power to its customers. Historically, there have been no issues with wildfire ignition due to system design and construction.

E. SITUATIONAL AWARENESS TECHNOLOGY

WSAB Recommendation #11: Provide context-setting information about the prevailing wind directions and speeds, differentiated by season, along with average weather conditions by season. Describe how and why situational awareness technology is installed, and where on the system. Describe the decision-making process regarding the installation of situational awareness technology, including constraints such as budgets, availability of equipment, knowledge to effectively deploy, or qualified personnel to install and monitor effectively. Identify any other agencies, utilities, or fire professionals that the data from these devices is shared with.

POU Response: MEID currently does not have any situational awareness technology for wildfires currently installed due to the historical lack of wildfires within our service area and low risk of wildfire.

F. VEGETATION MANAGEMENT

WSAB Recommendation #12: Describe treatment plans for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines.

POU Response: MEID's vegetation management program is discussed in Section V.C. of MEID's WMP. MEID performs yearly patrols of our electric assets. During these patrols, if work is flagged to be performed for vegetation management, a work order is created. This is also done ah-hoc if there is an issue with vegetation and our equipment. MEID meets or exceeds the minimum industry requirement for vegetation management. MEID meets or exceeds for both transmission and distribution level (1) Public Resources Code (PRC) § 4292; (2) PRC § 4293; (3) GO 95 Rule 35, Table 1; and (4) the GO 95 Appendix E Guidelines to Rule 35. MEID personnel perform all VM inspection and maintenance. Describe the reasoning behind each treatment plan and the ecological impact of the treatment options chosen.

WSAB Recommendation #13: List the qualifications of any experts relied upon, such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology. Specify the

level of expertise of the POU staff that manages the contractors performing vegetation management. Describe measures each POU takes to ensure that POU staff and contractors comply with or verify compliance with Cal/OSHA standards on Minimum Approach Distances (MAD).

> ***POU Response:*** MEID performs all of its own vegetation management. MEID performs yearly patrols of the power lines in order to inspect for maintenance or upgrade.

WSAB Recommendation #14: Describe whether the POU has considered innovative and alternative approaches to vegetation management.

> ***POU Response:*** No, the utility had not considered alternative approaches to vegetation management and the current process has been effective for the mitigation of outages and fires and the wild fire risk is very low.