MORENO VALLEY UTILITY
WILDFIRE MITIGATION PLAN
2021 INFORMATIONAL RESPONSE

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

June 21, 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. MVU 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 MVU's Wildfire Mitigation Plan (WMP) where the topic is addressed. Where the recommendation is not applicable to MVU, 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	**[POU]**	
Service Territory Size	33.48 square miles	
Owned Assets	☐ Transmission ☑ Distribution ☑ Generation	
Number of Customers Served	6,524 customer accounts as of December 2020	
Population Within Service Territory	214,982 [estimate]	
Customer Class Makeup	*Number of Accounts*	*Share of Total Load (MWh)*
	88.21% Residential; 1.42% Government; 0.03% Agricultural [pumping]; 7.84% Small/Medium Business; 2.50% Commercial/Industrial	24.12% Residential; 1.70% Government; 0.21% Agricultural [pumping]; 2.49% Small/Medium Business; 71.48% Commercial/Industrial
Service Territory Location/Topography[1]	[__]% Agriculture [__]% Barren/Other [__]% Conifer Forest [__]% Conifer Woodland [__]% Desert [__]% Hardwood Forest [__]% Hardwood Woodland	

[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.

	[__]% Herbaceous [__]% Shrub 100% Urban [__]% Water
Service Territory Wildland Urban Interface[2] (based on total area)	100% Wildland Urban Interface; [__]% Wildland Urban Intermix;
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	☐Includes maps Tier 2: 30% Tier 3: 10%
Prevailing Wind Directions & Speeds by Season	☐ Includes maps MVU is 100% underground and does not collect prevailing wind data.
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 0 miles Overhead Trans.: 0 miles Underground Dist.: 79 miles Underground Trans.: 0 miles
	Explanatory Note 1 - *Methodology for Measuring "Miles":* [line miles]
	Explanatory Note 2 – *Description of Unique Ownership Circumstances:* [NA]
	Explanatory Note 3 – *Additional Relevant Context:* [NA]
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%
	Explanatory Note 4 – *Additional Relevant Context:* [NA]
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	☐ 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.

electricity in response to elevated wildfire risks?	
Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	☐ Yes ☑ No If yes, then provide the following data for calendar year 2020: *Number of shut-off events*: [____] *Customer Accounts that lost service for >10 minutes:* [____] *For prior response, average duration before service restored:* [____]

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 4 Page 5
Objectives of the Plan	**PUC § 8387(b)(2)(B):** The **objectives** of the wildfire mitigation plan.	Section 3 Page: 4
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 6 Page 10
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 8 Page 13
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 8 Page 14
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 6 Page 12

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 4, 7 Page 7, 13
Vegetation Management	**PUC § 8387(b)(2)(H):** Plans for vegetation management.	Section 6 Page 10
Inspections	**PUC § 8387(b)(2)(I): Plans for inspections** of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section 6 Page 10
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 5 Page 9
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.	NA
Enterprisewide Risks	**PUC § 8387(b)(2)(L):** A methodology for identifying and presenting **enterprisewide** safety risk and wildfire-related risk.	Section 5 Page 9
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 7 Page 12
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.	Section 8 Page 14

	(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.	
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.	http://www.moval.org/mvu/pubs/MVU-WildfireMitigationPlanEvaluation.pdf

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 refence 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:*** MVU's Wildfire Mitigation Plan is developed by staff and then reviewed by the Division Manager, Public Works Director, Assistant City Manager, City Manager, Utilities Commission, and the five-member City Council. City Council votes on approval and the plan is approved with a majority vote.
>
> MVU funds wildfire mitigation activities through current rate payer revenues. These funds are augmented by grant awards. Mitigation projects typically take the form of revised equipment design standards and system hardening Capital Improvement Projects.

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:*** http://www.moval.org/mvu/pubs/MVUWildfireMitigationPlanEvaluation.pdf

WSAB Recommendation #4: Develop, in collaboration with POU industry associations, WMP guidelines for future WMPs, 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:*** Alternative 2: MVU's customers may be impacted by the PSPS events ordered by SCE. The following provides responses to specific questions included in the WSAB's 2021 WSAB Guidance Advisory Opinion:

- What is the relationship between the IOU and the POU during PSPS events?

POU Response: MVU is an active partner in minimizing the impacts of SCE-initiated PSPS events. Additionally, MVU utilizes circuit-level PSPS details from SCE to notify potentially-impacted MVU customers.

Does the POU receive advance notification?

POU Response: Yes, MVU receives potential PSPS event communications from SCE beginning one week prior to the forecasted event.

- Is the POU affected at the transmission or distribution level?

POU Response: SCE-initiated PSPS events affect MVU at the sub-transmission level.

- Is the POU implementing a mitigation strategy for IOU PSPS?

POU Response: Yes, as MVU expands its distribution system, redundant circuitry is installed to sectionalize and isolate PSPS outages and reduce the number of affected customers.

- Does the POU have its own permanent or temporary generation, (or customer provision of same) allowing it to withstand an IOU PSPS?

POU Response: Yes, MVU maintains both permanent and portable generation facilities to protect critical City and MVU facilities from PSPS.

- Does the POU distribute back-up generators to customers?

POU Response: MVU has a single portable generator unit to distribute in the community as needed.

- Does the POU deenergize their own lines when a wildfire threat looms, even if it is not labelled a PSPS?

POU Response: No.

- In the above instance, what customer communication takes place?

POU Response: NA

- Is the POU a Balancing Authority Area? If yes, describe any applicable criteria for wildfire related de-energization.

POU Response: No.

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: MVU is impacted by Southern California Edison (SCE) Public Safety Power Shutoff (PSPS) events. MVU receives advanced notification from SCE when impacted circuits are being monitored against weather projections for a potential PSPS event. SCE provides the names of circuits being monitored as well as the impacted City accounts, along with the projected period of concern for the PSPS event. As the situation develops, MVU receives updated data from SCE on weather, circuits and accounts being monitored, and if a PSPS is triggered. MVU monitors the SCE status reports and stages mitigation assets appropriately in advance of a SCE triggered PSPS event. If the PSPS event affects any MVU facilities, MVU customers are notified as early as possible of pending power shutoffs.

When a SCE PSPS event is triggered that impacts MVU facilities, MVU notifies its customers of potential service interruption in a variety of ways. Alert notices are pushed out to customers via the MyMVU mobile application, email blasts, direct telephone communication with critical customers, as well as public messaging available on the MVU web site and through MVU's 24/7 call center. PSPS and outage notices will be translated into Spanish for non-English speakers in the future.

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: MVU's approach to grid hardening is discussed in Section 4, 6, and 8 of MVU's WMP. The following provides responses to specific questions included in the WSAB's 2021 WSAB Guidance Advisory Opinion:

- Does the POU perform a circuit-by-circuit analysis to identify essential facilities (and whether they have backup power) like hospitals, communication centers, and community resource centers?

  POU Response: Yes.

- Does the POU assess system hardening measures that could be installed to prevent PSPS for those facilities?

  POU Response: Yes.

- In what way does the POU prepare these facilities for a PSPS or another wildfire related de-energization event?

POU Response: MVU's distribution system is designed with the ability to sectionalize and isolate individual circuits to prevent widespread outages related to PSPS. Additionally, MVU openly communicates forecasted SCE initiated PSPS events to potentially impacted customers to mediate impacts.

- For POUs that power water utilities or supply water themselves, if that water is used for drinking and firefighting, are certain projects being undertaken to harden the system for water delivery purposes?

POU Response: NA

- Are pump stations self-contained or have some level of fire protection? Is the supply to sewage treatment plants hardened?

POU Response: NA

- Is supplemental generation available such as backup batteries or backup power facilities?

POU Response: Yes.

- Are the majority installed by the customers themselves or the utility?

POU Response: Battery storage is mostly installed by the customer.

- Can the utility open and close taps? Can the utility back-feed?

POU Response: NA

- Are there wildfire related circumstances wherein either of these tactics would be useful?

POU Response: With MVU's distribution system completely underground neither of these tactics have bearing or impact on wildfire mitigation.

- Can the utility sectionalize in a localized fashion?

POU Response: Yes.

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: MVU meets or exceeds the minimum inspection requirements provided in CPUC GO 165 and 174. Pursuant to these rules, utilities inspect electric facilities in the High Fire Threat District more frequently than the other areas of its service territory. As

described above, MVU currently does not have any overhead power lines located within or near the High-Fire Threat District within the CPUC's Fire Threat Map. However, MVU staff uses their knowledge of the specific environmental and geographical conditions of MVU's service territory to determine if any particular areas require more frequent inspections.

If MVU staff discovers a facility in need of repair that is owned by an entity other than MVU, MVU will issue a notice to repair to the facility owner and work to ensure that necessary repairs are completed promptly.

MVU has conducted an analysis of all circuits to identify essential facilities and prioritize the deployment of back-up power facilities. Grant funding is also being sought to install back-up generation at additional strategic facilities throughout the service territory. MVU is fully capable of sectionalizing any outage to mitigate the number of customers impacted. This mitigation technique will also be employed during PSPS events to reduce any service interruptions to MVU customers. MVU will explore the possibility of back feeding the distribution system with customer owned battery storage systems.

MVU's Utility Maintenance Management System (UMMS) is used to collect all data subject to GO165. The UMMS prepares monthly inspection and maintenance reports for all electric distribution facilities. Maintenance history for each piece of equipment is archived in the UMMS. Additionally, MVU's substation inspection and maintenance program complies with GO 174 guidelines as well as manufacturer specifications, standards, and recommendations. MVU performs monthly inspections of all substation components including recording and analysis of all alarms, fluid levels, meters, and Load Tap Changer settings.

Although MVU does not fall under the jurisdiction of the California Public Utilities Commission (CPUC), MVU has cooperated with the CPUC's Utilities Safety and Reliability Branch and their requests for periodic audits. The audit in October 2008 noted no GO 95 infractions, and identified two GO 128 infractions to MVU Pad Mounted Electric structures. Repairs were made to correct the violation the day they were identified by the CPUC. Again, in March of 2013 the CPUC audit identified three vegetation obstructions that were immediately corrected in the field as they were identified. No additional infractions have been identified by the CPUC.

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. MVU's staff will participate in CMUA's meeting and will discuss any changes that MVU 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: MVU's assessment of wildfire risks is discussed in Section 5 of MVU's WMP. 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 will the utility address risks associated with facilities requiring power that abut a Tier 2 or Tier 3 HFTD?

  POU Response: MVU will continue to underground all system distribution facilities, as well as employ grid-hardening measures where appropriate.

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

  POU Response: MVU's electric facilities are designed and constructed to meet or exceed the relevant federal, state, or industry standard. MVU treats CPUC General Orders (GO) 95 and 128 as a key industry standard for design and construction standards for underground electrical facilities. MVU meets or exceeds all standards in GO 95 and 128. Additionally, MVU monitors and follows, as appropriate, the National Electric Safety Code.

- What design and construction standards has the POU implemented that go beyond G.O. 95 or other General Order standards related to design and construction?

  POU Response: MVU undergrounds all electric distribution facilities.

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: As a 100% underground utility, MVU does not collect wind/weather data. MVU shares service territory with SCE who maintains a robust meteorology division. Relevant weather data should be sourced from SCE.

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: MVU's vegetation management program is discussed in Section 6 of MVU's WMP.

MVU staff, in partnership with its maintenance and operations provider, is responsible for electric facility design, maintenance, and inspection, including vegetation management. Although MVU's electrical distribution system is 100% underground, MVU follows best practices to prevent ignition of wildfires from its equipment. These items include:

• MVU performs routine maintenance of all distribution facilities.

• MVU adheres to a seasonal weed abatement and vegetation management schedule to maintain at-risk sites.

• MVU contracts for seasonal weed abatement services. Standard clearances as defined by General Orders 95, 128, 165, and 174, are maintained as part of routine maintenance cycles. All electric distribution facility equipment requiring repair and maintenance are addressed and corrected as they are identified. Annual inspections and maintenances of MVU substation facilities identified no deficiencies for 2020.

• MVU abides by Municipal Code 6.40 to abate trees, shrubs, weeds, and grass at all MVU facilities. Including Landscaping, vegetation, or improved or unimproved property in any of the following conditions: containing weeds, dry grasses, dead trees, dead shrubs, or any other material which bears seeds of a wingy or downy nature or which by reason of their size, manner of growth or location, constitute a fire hazard or a threat to public health, or containing weeds, vegetation, grasses, trees or shrubs, including, but not limited to sagebrush, chaparral, and Russian Thistle (tumbleweed) which, when dry, will in reasonable probability constitute a fire hazard or be blown onto adjoining property by prevailing winds; trees and shrubs containing dead or fallen limbs or branches that may present a safety hazard; trees or shrubs which are overgrown or contain limbs or branches that restrict, impede or obstruct the use of or obscure the visibility of pedestrians or drivers using the public rights-of-way, easements, sidewalks or roadways; overgrown vegetation likely to harbor vermin, insects or rodents of any kind.

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: NA

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

POU Response: NA