

Independent Review of 2023-2025 Wildfire Mitigation Plan

Modesto Irrigation District (MID)
Anser Advisory's Independent Evaluation

June 2, 2023





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A. Executive Summary

Pursuant to California Senate Bill (SB) 901 enacted September 21, 2018, and Assembly Bill (AB) 1054 enacted July 12, 2019, a Wildfire Mitigation Plan (WMP) must be updated annually and comprehensively every three years to comply with Public Utilities Code Section §8387 (PUC §8387) regarding wildfire mitigation for publicly owned utilities (POUs). In response to this legislation, Modesto Irrigation District (MID) contracted with Anser Advisory Management LLC (Anser) as the independent evaluator (IE) of its 2023-2025 WMP in May 2023 when the WMP was ready for review. The WMP and IE report are to be filed with the California Wildfire Safety Advisory Board (WSAB) who provides the POUs oversight with their wildfire mitigation plans.

Anser performed an independent assessment of MID's 2023-2025 WMP to determine the comprehensiveness as required by PUC Section 8387(c) and produce an IE report to:

- Present to the MID Board of Directors at a public meeting
- File with the WSAB
- Publish on MID's website

Anser employed the following methods to complete the evaluation:

- Assessed MID's compliance with PUC Section 8387's WMP statutory requirements
- Reviewed MID's 2022 WMP Update
- Reviewed and assessed WSAB's feedback on MID's 2022 WMP Update
- Benchmarked MID's WMP elements against industry practices and standards for similarly situated utilities (i.e., have limited electrical infrastructure in HFTD)

As a result of this evaluation, the Anser team deems MID's 2023-2025 wildfire mitigation plan to be comprehensive and finds that the plan meets all requirements of the California PUC Section §8387.

There is one (1) recommendation in Section G - Benchmarking Industry Practices and Standards that provides consideration for future WMP updates.

B. Independent Evaluation

Pursuant to California SB 901 enacted September 21, 2018, and AB 1054 enacted July 12, 2019, a WMP must be updated annually and comprehensively every three (3) years to comply with Public Utilities Code Section §8387 (PUC §8387) regarding wildfire mitigation for POU. This legislation requires all POUs to prepare and present a WMP to its governing body annually, to comprehensively update its WMP every three (3) years, and to submit their WMP to the WSAB by July 1st of every year, in addition to posting the WMP to its website. Additionally, PUC §8387 requires POUs to contract with an independent evaluator (IE) to review and assess the comprehensiveness of its WMP, have the IE present the IE report to its governing board, and publish the IE's report on its website. Although PUC §8387 imposes no specific deadline for meeting these obligations, nor a clear frequency for the IE, MID has chosen to match the IE review frequency to the comprehensive update cycle of the WMP to ensure compliance and to ensure mitigation methods are consistent with industry best practices. This 3-year IE review cycle also complies with WSAB recommendations.

A single statewide fire-threat map was adopted in 2018 to define different high fire-threat districts (HFTD), which includes areas of elevated fire risk (Tier 2) and areas of extreme fire risk (Tier 3) from electric utility-related wildfires. Within these HFTDs, MID implemented increased fire-safety regulations regarding vegetation management, clearances, and inspections. MID has very little exposure and very little wildfire risk in its HFTD, with only 1.6 miles of overhead 60kV transmission line in Tier 2, and no distribution assets within or abutting the HFTD. MID's WMP analyzes the risk this line poses and defines several mitigation activities that MID pursues yearly to reduce the risk of electrical assets igniting a wildfire.

C. Evaluator Qualifications

Anser Advisory was retained by MID to be the IE of their 2023-2025 WMP, as stipulated under PUC §8387(c). Anser is a qualified and certified Independent Evaluator¹ for California utility WMPs. Anser has been on the front lines supporting utilities with all elements of wildfire mitigation efforts since 2018. Their team of program managers and technical experts possess in-depth knowledge, along with hands-on experience, to provide wildfire mitigation solutions and independent evaluations. Anser supports utilities that must continuously monitor and evaluate their wildfire mitigation strategies and outcomes. Anser partners with utilities to review for compliance, track quality and progress of mitigations, advise on findings, and identify areas of improvement.

MID selected Anser as their 2023-2025 WMP IE based on their level of experience with wildfire mitigation plans, familiarity with similar type and size utilities, knowledge of utility's design and construction standards, and recommendations from references.

D. Evaluation Methodology

Anser reviewed the plan in its entirety for comprehensiveness, including a statutory compliance review against the PUC §8387 requirements. Anser also reviewed their 2022 WMP Update and WSAB's specific feedback. During the IE review, the Anser team drew upon their knowledge of wildfire mitigation best practices and benchmarking with peer utilities.

¹ See Energy Safety's "Independent Evaluator List for 2022 Wildfire Mitigation Plans," p. 2.



Anser reviewed a first draft of its IE findings on May 30, 2023 with MID's Electric Engineering Team. MID provided updated 2023-2025 WMP drafts on June 1 and 2, 2023. The final 2023-2025 WMP and its IE report are to be presented on June 13, 2023 to the Board and the public.



E. Analysis of Required WMP Elements

As instructed in PUC §8387(b)(2), MID’s wildfire mitigation plan shall consider as necessary, at minimum, all of the following requirements in Table 1 below. Anser has provided their IE review findings for each requirement and whether MID meets the requirement.

Table 1: PUC 8387 Statutory Requirements for Comprehensiveness of MID’s 2023 WMP

Requirements for a POU's WMP per PUC §8387(b)(2)	Anser's IE Review	Section(s) in MID's 2023 WMP
(A) An accounting of the responsibilities of persons responsible for executing the plan.	In Section 4.1, MID explains the General Manager is the owner and has overall responsibility of their WMP. The Assistant General Manager of Transmission & Distribution has overall responsibility for execution of their WMP. Further, in Table 4, MID provides the title of the program owner for each of their 2023-2025 WMP programs. MID discusses relevant lines of communication during emergencies in Section 6.7.2.	4.1 <input checked="" type="checkbox"/> Meets Requirement
(B) The objectives of the wildfire mitigation plan.	In Section 3, MID identifies three (3) primary objectives of its WMP: <ol style="list-style-type: none"> 1. Minimizing Sources of Ignition (Section 3.1) 2. Improving Grid Reliability and Resiliency (Section 3.2) 3. Measuring Plan Effectiveness (Section 3.3) MID has updated the objectives from their previous 2022 WMP Update, and it should be noted that these objectives and descriptions are built upon the 2020-2022 WMP programs and initiatives. MID explains they will continue to evaluate their minimal HFTD and its assets annually and provide updates on system improvements, if any, during the 2023-2025 WMP cycle.	3 <input checked="" type="checkbox"/> Meets Requirement
(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.	In Section 6, MID describes their 2023-2025 WMP wildfire mitigation strategies, broken out by the following categories: <ol style="list-style-type: none"> 6.1 Situational Awareness 6.2 Design and Construction Standards 6.3 Vegetation Management 6.4 Asset Inspections 6.5 Workforce Training 6.6 Recloser Policy 6.7 PSPS/De-energization 	5.3, 5.3.5, 6 <input checked="" type="checkbox"/> Meets Requirement



	<p>In Section 5.3, MID referenced the City of Modesto 2022 Climate Change Vulnerability Assessment to evaluate potential climate change impacts to the MID service territory and MID assets.</p> <p>In Section 5.3.5, MID notes that the City of Modesto published the “Modesto 2050 General Plan Update and Environmental Impact Report, Final Technical Memorandum: Climate Change Vulnerability Assessment” report in June of 2022. MID analyzed the report and identified six (6) risks that could be of specific interest to them:</p> <ol style="list-style-type: none"> 1. Electrical substations and transmission lines, as mapped by the California Energy Commission and California Office of Emergency Services 2. Power plants, including McClure Generation Station and Stone Drop Mini-Hydro 3. Dams and reservoirs, including Don Pedro Dam, New Melones Dam, New Exchequer Dam, La Grange Dam, Hetch-Hetchy Reservoir, Modesto Reservoir, and Turlock Lake 4. Electric vehicle charging stations 5. Communication facilities, including television and radio antennae and Internet lines, as mapped by the California Office of Emergency Services 6. Evacuation routes and single access roads <p>During the 2023-2025 WMP cycle, MID plans to evaluate the conclusions of the report to determine what these projected climate change impacts may have on MID operations and evaluate possible changes to reduce MID’s fire risk potential, if any identified, in the region and develop an action plan to mitigate any potential increase in risk. MID’s coordination with the local government regarding their climate change research is a considerable improvement from their 2022 WMP Update.</p>	
<p>(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.</p>	<p>In Section 9.1, MID outlines the three (3) metrics tracked to measure the performance of their WMP, inclusive of any assumption(s) that underlie each metric. The three metrics are tracked by MID’s Electric Engineering Department and are the following:</p> <ol style="list-style-type: none"> 1. Fire Ignitions 2. Wires Down 3. Vegetation Management and Inspections <ol style="list-style-type: none"> a. Percentage of vegetation inspections (HFTD) b. Percentage of vegetation clearing completed (HFTD) c. Percentage of pole brushing completed (HFTD) 	<p>9.1 <input checked="" type="checkbox"/> Meets Requirement</p>
<p>(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation</p>	<p>In Section 9.2, MID acknowledges it has very few assets in the HFTD and does not experience a high volume of wildfire risk events. As a result, they still have relatively limited data to make risk-informed decisions. However, MID does commit to evaluating their data for potential improvements to their WMP and implement mitigations, as needed.</p>	<p>9.2 <input checked="" type="checkbox"/> Meets Requirement</p>



<p>plan performances has informed the wildfire mitigation plan.</p>		
<p>(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.</p>	<p>In Section 6.6, MID states that an industry best practice is to disable the automatic reclose function on circuits that traverse the HFTD when critical fire weather conditions are forecasted or exist. MID’s one (1) transmission line that is in Tier 2 HFTD does not have an automatic recloser. In Section 6.7, MID outlines their de-energization protocols, including the impacts to public safety and customer notifications.</p>	<p>6.6, 6.7 <input checked="" type="checkbox"/> Meets Requirement</p>
<p>(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential de-energization for a given event.</p>	<p>In Section 6.7.2, MID states that their customer communication/information protocol is for unplanned interruptions which include interruptions caused by wildfires. Information provided for an unplanned interruption includes, but not limited to, time outage occurred, estimated time of restoration, number of customers impacted, and outage cause.</p>	<p>6.7.2 <input checked="" type="checkbox"/> Meets Requirement</p>
<p>(H) Plans for vegetation management.</p>	<p>In Section 6.3, MID discusses how they meet or exceed the industry standards for vegetation management around transmission lines, distribution lines, and substation facilities. At time-of-trim, MID leverages the guidance in GO 95, along with their knowledge of tree growth rates and tree species, to determine appropriate time-of-trim clearance. Further, MID outlines how they comply with industry, state, and federal standards, by maintaining the following internal vegetation management procedures:</p> <ul style="list-style-type: none"> • T&D Vegetation Management Program (115kV and below) • 230kV Transmission Vegetation Management Program <p>These procedures provide the methodology for preventing encroachment into minimum vegetation clearance distances of energized overhead lines and on clearing vegetation from the energized lines by maintaining safe clearance. MID’s Vegetation Manager makes periodic field visits to check</p>	<p>6.3 <input checked="" type="checkbox"/> Meets Requirement</p>



	trimming activities and worksite safety. MID also has three (3) performance metrics related to vegetation management to measure the effectiveness of their vegetation management program.	
(I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	In Section 6.4, MID comprehensively describes their infrastructure inspection program, in addition to their vegetation inspection program in Section 6.3.1. MID maintains strict adherence to CPUC GO's for inspection and maintenance of their facilities (GO 95 Rule 18, 165, 174). MID's only asset in the HFTD is the 60kV New Hogan line which is categorized as Tier 2. MID performs four (4) inspections per year in the Tier 2 area. MID staff use their knowledge of the specific environmental and geographical conditions of MID's service territory to determine if any areas require more frequent inspections. MID reviews their infrastructure and vegetation inspection programs on a yearly basis.	6.3.1, 6.4 <input checked="" type="checkbox"/> Meets Requirement
(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:	In Section 5, MID summarizes the wildfire risk drivers in their service territory. As there is only a mile and a half of transmission line in the HFTD, their risk drivers in the HFTD are limited.	5 <input checked="" type="checkbox"/> Meets Requirement
(J)(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.	In Section 6.2, MID describes the risk drivers associated with MID's design and construction standards.	6.2 <input checked="" type="checkbox"/> Meets Requirement
(J)(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.	In Section 5.3, MID describes the risk drivers associated with topographic and climate conditions in their service territory, including extended drought and extreme heat.	5.3 <input checked="" type="checkbox"/> Meets Requirement
(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	In Section 5.2, MID describes their participation in the review of the CPUC High Fire Threat District (HFTD) Map. For the 2023-2025 WMP cycle, MID concurs with the existing HFTD boundaries and does not recommend changes to the HFTD boundaries as currently established.	5.2 <input checked="" type="checkbox"/> Meets Requirement



map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.		
(L) A methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.	In Section 5.1, MID describes their enterprise-wide safety risk identification process. This includes a lessons learned process and monitoring/evaluating new trends and events related to wildfire mitigation.	5.1 <input checked="" type="checkbox"/> Meets Requirement
(M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	In Section 8, MID describes their standard operating procedure that outlines the process for the safe restoration of service following an interruption. This same procedure will be utilized for the safe restoration of service if MID experiences more widespread interruptions as a result of real-time incidents, including wildfires.	8 <input checked="" type="checkbox"/> Meets Requirement
(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:	In Section 9, MID describes the processes and procedures for evaluating their WMP.	9 <input checked="" type="checkbox"/> Meets Requirement
(N)(i) Monitor and audit the implementation of the wildfire mitigation plan.	In Section 9.3, MID describes how they monitor and audit the implementation of their WMP. The successful implementation of their WMP requires a collective effort from various MID departments. The department leads ensure that the applicable tasks have been completed in a safe and timely manner. A proactive approach will be taken in identifying emergent hazards and taking corrective action. MID collaborates with other POU's in bi-weekly meetings, and they also review and address the recommendations from WSAB's Guidance Advisory Opinion for their previous year's comprehensive WMP or WMP Update.	9.3 <input checked="" type="checkbox"/> Meets Requirement
(N)(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.	In Section 9.4, MID explains their process for identifying and correcting deficiencies in their WMP. MID is aware that identifying gaps and deficiencies in the WMP is a continuous process which is learned through experience and specific record keeping. Once identified, any gaps or deficiencies will be corrected. MID will evaluate such gaps and will work on determining a solution. Any such changes will be incorporated into the Plan and material changes will update the plan as appropriate.	9.4 <input checked="" type="checkbox"/> Meets Requirement
(N)(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors,	In Section 9.5, MID explains that during the 2020-2022 WMP cycle MID did not identify any deficient programs applicable to MID assets within the HFTD. MID will continue monitoring and documenting the listed performance metrics to ensure expected performance of the Plan. In Section 6.4, MID describes how they monitor and audit the effectiveness of their asset inspections.	6.4, 9.5 <input checked="" type="checkbox"/>



that are carried out under the plan, other applicable statutes, or commission rules.		Meets Requirement
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F. Wildfire Safety Advisory Board Recommendations

The WSAB published their Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electric Cooperatives in November 2022.² This Opinion document provides general and MID-specific recommendations for improving their 2023-2025 WMP. Anser reviewed the WSAB’s Opinion document, the section below contains a summary of each recommendation the WSAB had for MID’s 2022 WMP and whether their 2023 WMP has addressed the WSAB’s recommendation.³

Table 2: WSAB Advisory Guidance for MID’s 2022 WMP⁴

WSAB Advisory Guidance for MID Based on MID's 2022 WMP	Anser's IE Review
The WSAB appreciates Modesto's continued inclusion of a context setting template and statutory cross-reference table in their 2022 WMP. However, the WSAB requests that in the upcoming 2023 comprehensive revision WMP that Modesto include more of the context template from Appendix 2, and, while Modesto has a good WMP structure, requests consideration of the proposed new comprehensive revision template in Appendix 1 as appropriate.	MID followed the guidance of the WSAB and included both Appendix 1 and Appendix 2 in Section 2 of its 2023-2025 WMP.
The WSAB notes that Modesto has added or altered information about customer participation in Board meetings with respect to consideration of their WMPs and added a sentence about Modesto's budget processes. The WSAB encourages Modesto to consider upgrading the information provided here by following including the requested information in the proposed new comprehensive revision template in Appendix 1.	MID followed the guidance of the WSAB and included Appendix 1 in Section 2 of its 2023-2025 WMP.
The WSAB commends Modesto's treatment of WMP information on their website, including clear and prominent links to the latest 2022 WMP as well as links to historical WMP information to allow perusal of WMP history.	N/A

² See WSAB’s “Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electric Cooperatives,” November 16, 2022.

³ Note the materials published by the WSAB and the recommendations provided are for guidance and are not statutory requirements.

⁴ See WSAB’s “Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electric Cooperatives,” November 16, 2022, pp. A3-35 – A3-36.



<p>The WSAB notes that Modesto's 2022 "update" WMP includes some changes from the 2021 document but many of those appear to be removals of information rather than additions. Perhaps Modesto had good reasons for those removals about CalFIRE 2021 map updates, a statement about the utility not considering PSPS due to low fire risk in their service area, information about potential PSPS and resulting impacts on customers, and information about 2020 metric results but the WSAB is curious about the changes. In addition, the WSAB observes that there were no changes to Modesto's design and construction standards information - an area that it seems reasonable to have updated. The WSAB encourages Modesto to materially update their WMP information in the 2023 comprehensive revision WMP, considering the provisions listed in Appendix 1.</p>	<p>In Section 5.2, MID provides information about the HFTD map which they use to identify assets in an elevated fire risk area.</p> <p>In Section 6.7, MID added in more information to its 2023-2025 WMP regarding de-energizing the one line in HFTD when triggered by PG&E. The only system impact from the de-energizing of MID's 60kV New Hogan line is the loss of MID's New Hogan generator output but no impacts to MID nor PG&E customers.</p>
<p>The WSAB appreciates Modesto including more information about the potential impacts of climate change on wildfire risks in their 2022 WMP but notes that the added information is largely generic, not specific to Modesto's specific territory and possible risk changes considering that some of Modesto's "expanded" territory (also served by PG&E) abuts Tier 2 HFTD area.</p>	<p>In Section 5.3, MID describes the risk drivers associated with topographic and climate conditions in their service territory, including extended drought and extreme heat. As there is only a mile and a half of transmission line in the HFTD, their risk drivers in the HFTD are limited.</p>
<p>The WSAB commends Modesto's new statement about following NERC and WECC standard policies for managing de-energization or outage contingencies and promise to describe in further detail in the 2023 comprehensive revision WMP. The WSAB continues to question whether Modesto is fully considering whether their customers may be impacted by an IOU PSPS or other power supply failure and how they as a utility manage such impacts.</p>	<p>In Section 6.7, MID added in more information to its 2023-2025 WMP regarding de-energizing the one line in HFTD when triggered by PG&E. The only system impact from the de-energizing of MID's 60kV New Hogan line is the loss of MID's New Hogan generator output but no impacts to MID nor PG&E customers.</p>

G. Benchmarking Industry Practices and Standards

In Section 6.2.1 of its WMP, Wood Pole Replacement, MID states that during the 2020-2022 WMP cycle, routine inspections of assets within the HFTD have not identified any poles that need replacing at this time. Anser recommends adding in procedural language to this section to describe how wood poles are inspected, the frequency of wood pole inspections, and the remedy if a wood pole is deteriorated.

H. Conclusion

Anser has independently reviewed MID's 2023-2025 WMP and deem it to be comprehensive per California PUC §8387(b)(2) requirements for a POU. MID also considered the recommendations from the WSAB and revised their WMP where appropriate. Anser has discussed the IE review results and recommendations with MID's Electric Engineering Department.