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Subject: Independent Evaluator's Report of the Redding Electric Utility's 2023 Wildfire Mitigation Plan

1 Introduction

The Redding Electric Utility (REU) contracted with Dudek to engage in an independent evaluation of its 2023 Wildfire Mitigation Plan (WMP). This independent evaluation report describes the technical review and evaluation of the WMP prepared by the REU. The WMP requirements are codified in California Public Utilities Code (PUC) Section 8387(b)(2) for local publicly owned electric utilities (POUs). PUC Section 8387(c) requires that an independent evaluator review and assess the comprehensiveness of a POU's WMP and issue a summary report. The year 2023 is important for POUs because they are required by PUC Section 8387(b)(1) to comprehensively revise their WMPs "at least once every three years."

Dudek conducted a review of REU's 2023 WMP from January 20 to March 13, 2023. The focus of the evaluation was to determine the comprehensiveness of WMP and ensure it included all elements required under PUC Section 8387(b)(2) (listed in Attachment A).

In addition to evaluating the elements required by the PUC, Dudek reviewed the Wildfire Safety Advisory Board's (WSAB's) specific guidance for the REU published in their Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electrical Cooperatives (WSAB 2022).

This Independent Evaluator's report contains the following elements: (1) an overview of the REU, (2) A review of the statutory requirements in PUC Section 8387(b)(2) for local POUs, (3) A review of the specific recommendations published by the WSAB for the REU 2022 WMP, (4) 2022 wildfire mitigation and prevention accomplishments of the REU, (5) an overview of the metrics used the REU's WMP, and (6) a comparison of wildfire risk reduction strategies used by the REU with those used by similar utilities and municipal utility industry standards.

2 An Overview of the Redding Electric Utility

The REU service territory covers 61 square miles of the very northwestern end of the Central Valley, which transitions into the Cascade foothills. The City of Redding (City) is surrounded by mountains to the north, east, and west and relatively level agricultural lands to the south. Outermost parts of the City are part of the Cascade foothills, whereas southern and central areas are in the Sacramento Valley. The REU serves approximately 44,000 customers within

the City, primarily residential (86%) and commercial (12%) customers. The core of the REU's service territory is a fully developed, urban area. The east and west sides of their service territory, located in the foothills, are not fully developed and contain a mixture of residential communities of varying densities and areas of natural vegetation. This portion accounts for approximately 62% of the REU's service territory and is classified as Wildland Urban Interface (Carlson 2022). Approximately 46% of their service territory lies within either a Tier 2 or Tier 3 fire threat district. The REU owns and operates transmission, distribution, and generation assets, with approximately 65% of their electrical lines located underground.

The REU's service territory experiences a lengthy fire season (April to November) during the typical year. During exceptionally dry years, the fire season will be year-round. As a result, in a typical year there will be on average 100 or more vegetation fires. The destructive Carr fire in 2018 burned a portion of the west side of the REU's service territory, including several hundred homes.

3 Statutory Requirements for Wildfire Mitigation Plans

PUC Section 8387(b)(2) lists the statutory requirements for WMPs. These are the specific elements that the independent evaluator must review to make its determination for this report. The specific elements that must be addressed in REU's WMP are included in Table A-1 (see Attachment A) and are summarized here for reference.

- Staff responsibilities
- General objectives
- Wildfire risk reduction program descriptions
- The metrics used to evaluate the WMP's performance
- How the application of previously identified metrics has informed the WMP
- Protocols for reclosers, de-energization, and public safety power shut-off
- Procedures for community notification and outreach
- Vegetation management plans
- Electrical equipment and infrastructure inspection plans
- Description of wildfire risks and drivers for those risks throughout the service territory, including design, construction, operation, and maintenance of equipment and facilities and topographic and climatological risk factors
- Identification of any geographic area in the service territory that is a higher wildfire threat than is identified in a commission fire threat map
- Identification of enterprise-wide safety risk and wildfire-related risks
- How the service will be restored after a wildfire
- The processes and procedures used to monitor and audit the implementation of the WMP and identify any deficiencies, and the effectiveness of electrical line and equipment inspections

4 Public Utility Code Requirements

Dudek found that REU's WMP meets the statutory requirements of comprehensiveness per PUC Section 8387. The review of the WMP's elements is summarized relative to the application of the WMP. Dudek's assessment is in **bold text** beneath the description of the requirement. The table in Attachment A lists each required element for REU's WMP and provides Dudek's initial assessment of the comprehensiveness of that element within the WMP that was reported to the REU in the first review in February and the final assessment.

Minimizing Wildfire Risks

PUC Section 8387(a) requires the following: "Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment."

The REU's WMP and the standard operating procedures (SOPs) referenced in the WMP comprehensively describe the safety-related measures that the REU follows to reduce its risk of causing wildfires. Dudek has determined that REU complies with this requirement through the design of its system, its SOPs, and the implementation of wildfire risk reduction and wildfire response strategies.

Evaluation of WMP Elements

Below is a summary of the WMP elements as required by PUC Section 8387, including restating sections of the WMP where applicable.

8387(b)(2)(A): Responsibilities of Persons Responsible for Executing the Plan.

Section 3 A of the REU WMP comprehensively describes staff responsibilities and functions in the implementation of their WMP.

8387(b)(2)(B): Objectives of the Wildfire Mitigation Plan

Sections 2 A–2 D of the REU WMP comprehensively describe the REU's four objectives.

8387(b)(2)(C): Prevention Strategies and Programs

Chapter 5 in the REU WMP describes the utility's wildfire prevention strategies. It is very comprehensive, covering existing programs, progress in wildfire prevention efforts, and future work. Chapter 5 includes 2022 equipment hardening accomplishments and the specific vegetation management actions the REU performs that exceed GO 95 requirements. This section references the REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation, which contains further details of the wildfire risk reduction the REU has completed.

8387(b)(2)(D): Metrics and Assumptions for Measuring WMP Performance

Section 8 A in the REU WMP describes the two metrics the REU uses to evaluate WMP performance. The metrics, new wildfire ignitions and wires down events, continue to be effective metrics for the

REU's WMP because each metric event the REU records additional relevant data (e.g., which fire threat district did the event originate in, did the event occur during red flag warning conditions) . The REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation contains the 2022 data for the two metrics in the WMP.

8387(b)(2)(E): Impact of Previous Metrics on WMP

Section 8 B of the REU WMP describes the improvements that the REU has made to their wildfire prevention programs based on the data collected from the WMP metrics, as well as describing how the REU plans to improve the data they collect for both metrics. The 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation reviews the data collected for both metrics.

8387(b)(2)(F): Reclosing Protocols

Section 5 F in the REU's WMP describes the utility's reclosing protocols, specifically that automatic reclosing schemes are disabled on circuits that traverse Tier 2 and Tier 3 areas. Appendix F of the WMP contains REU's SOP-35, which describes the REU's protocols for reclosers during red flag warnings.

8387(b)(2)(G): De-energization Notification Procedures

Section 5 G in the REU WMP describes the utility's public safety power shut-off stance, specifically that REU will not preemptively initiate a public safety power shut-off during periods of high fire danger. REU will continue to shut off power when directed to by Redding Fire Department, Redding Police Department, California Department of Forestry and Fire Protection, or other emergency responding agencies. This section also contains its public safety and notification plans. REU has several operating customer notification systems, including its website, Facebook, Twitter, and the City of Redding Communications Team. The website includes an outage map and an up-to-date news feed.

8387(b)(2)(H): Vegetation Management

Section 5 A of the REU WMP, the REU Wildfire Prevention and Improved Response Program (Appendix B to the WMP), and REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation (Appendix G to the WMP) contain a comprehensive description of the vegetation management program and the work accomplished in 2022. Included are descriptions of the statutory requirements, where and how the REU exceeds statutory requirements, and some of the vegetation management methods they employ.

8387(b)(2)(I): Inspections

Section 5 B of the REU WMP comprehensively describes the utility's inspection program including vegetation inspections. REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation (Appendix G to the WMP) contains a description of the inspection work completed in 2022.

8387(b)(2)(J)(i): Risks and Risk Drivers Associated with Design and Construction Standards

Chapter 4 in the REU WMP summarizes the wildfire risk drivers in REU's service territory. Section 4 C describes specific risk drivers associated with REU's design and construction standards.

8387(b)(2)(J)(ii): Risks and Risk Drivers Associated with Topographic and Climatological Risk Factors

The introduction to Chapter 4 provides an overview of wildfire risk drivers in REU's service territory and some general risk drivers associated with topographic and climate risk factors. Section 4 D contains a specific description of risk drivers associated with topographic and climate conditions in REU's service territory including a description of the area climate, vegetation/fuel types, and how the two combine to create an increased risk of high intensity and/or fast spreading wildfire.

8387(b)(2)(K): Geographical Area of Higher Wildfire Threat

Section 4 E in the REU WMP describes the utility's review of the California Public Utilities Commission fire threat map and their conclusions about the geographical locations of the high fire threat areas.

8387(b)(2)(L): Enterprise-wide Safety Risks

Section 4 B of the REU WMP comprehensively describes the utility's enterprise-wide safety risk assessment process including the criteria used by the REU to assess risk and the results of previous assessments.

8387(b)(2)(M): Restoration of Service

Chapter 7 of the REU WMP describes the steps used by the utility to restore service after a re-energization event and includes two lists that describe a prioritized order in which customers will have electrical service restored and a prioritized list of REU assets that will be re-energized.

8387(b)(2)(N)(i): Monitoring and Auditing WMP Implementation, 8387(b)(2)(N)(ii): Identifying and correcting WMP deficiencies, 8387(b)(2)(N)(iii): Monitoring and Auditing the effectiveness of inspections

Sections 8 C–8 E of the REU WMP describe the utility's processes for monitoring and auditing WMP implementation, correcting WMP deficiencies, and monitoring the effectiveness of inspections. REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation (Appendix G to the WMP) contains the results of the 2022 internal audit.

5 Wildfire Safety Advisory Board Guidance Advisory Opinions

In November 2022 the WSAB published a report with a description of general recommendations for improving the WMPs for POUs and rural electrical cooperatives. In addition, the report provided specific recommendations for each utility that submitted a WMP for review by the board. Dudek reviewed the WSAB's report, and the section below contains a summary of each recommendation the WSAB had for the REU's 2022 WMP and whether the 2023 WMP has addressed the WSAB's recommendation (WSAB 2022). The materials published by the WSAB and the recommendations within are for guidance and are not statutory requirements.

1. The WSAB reiterates its recommendation that the context setting template, cross-reference table, and other enhancements included in the informational response be incorporated in the appropriate sections of the WMP itself, preventing the need to look at different places in the WMP.

The cross reference to statutory requirements is on page 3 and the context setting table is on page 15. Both are in appropriate sections of the WMP.

2. Provide a short paragraph in future WMPs that describes the adoption, public comment, and any altered budget processes within the WMP itself, as envisioned by the proposed new WSAB WMP template.

Chapter 9 on page 32 of the WMP describes REU's WMP adoption process.

3. The WSAB requests that Redding file and perhaps more prominently point to the REU's 2022 Monitoring & Auditing Annual Report on Wildfire Mitigation and find a way to incorporate the annual strategy progress reporting more concretely within the filed WMP.

The REU 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation is a very detailed and helpful reference for the WMP. The REU 2023 WMP incorporates and references this report, which includes 2022 accomplishments, metric data, and a detailed description of the utility's wildfire risk mitigation programs. The REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation is found in Appendix G of the WMP.

4. Include a version history section and a description of changes section in the WMP.

Chapter 10 on page 33 of the WMP contains a table with the version history and a summary of the changes.

5. Discuss the impact of climate change on wildfire risks and potential mitigation actions to address those increased risks. The WSAB notes that there is very little information related to climate risks and potential changes in those risks in the Redding WMP.

The impacts of climate change on wildfire risks are described in Section 4 D of the WMP. The REU has already partnered with the City to expand their vegetation treatment programs in wildland urban interface areas in the city and helped fund the hiring of additional firefighters to mitigate the risk of increased new ignitions and the higher likelihood of higher intensity/harder to suppress fires.

6. Update Appendix D, an update appears to have been missed on page 18, which states that the program specifics are being designed and will be completed by mid-2021, 6 months prior to the date of the WMP.

The table on page 2 of Appendix D has been updated to December 2022.

7. Provide a description as to whether there are 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.

REU is a customer of energy produced by Western Area Power Authority facilities from the north, with two connections to Keswick Substation, and from the south, with three connections to Airport Substation. However, the REU is not dependent on the Western Area Power Authority to meet the electrical load demands for the city. If Western Area Power Authority facilities near Redding (Shasta Dam, Keswick Dam) were forced to de-energize due to nearby wildfire, the REU would be able to make up for the lost load by a combination of internal generation and external electricity producers.

6 Redding Electric Utility 2022 Progress in Implementing Wildfire Mitigation Plan Wildfire Prevention Strategies

Appendix G contains the REU's 2022 accomplishments regarding the wildfire prevention strategies described in their WMP. The REU accomplished the following.

Vegetation Management

- Inspected, patrolled, and cleared 314.74 of 315.1 acres of 115-kilovolt (kV) transmission lines in high-risk Tier 2 and Tier 3 areas.
- Created a 30-foot perimeter around nine substations and the Redding Power Plant, clearing approximately 70 acres in Tier 1, Tier 2, and Tier 3 zones.
- Inspected, patrolled, and cleared 225.71 of 230.27 acres of 12 kV distribution lines in high-risk Tier 2 and Tier 3 areas to comply with California Public Utilities Commission and California Department of Forestry and Fire Protection requirements.
- Trimmed 3,281 trees and removed another 703 trees directly impacting transmission and distribution power lines.

Inspections

- Completed the annual 115 kV line inspections in high-risk Tier 2 and Tier 3 areas by September 30, 2022.
- Completed the annual patrol and visual inspection for vegetation of all remaining Tier 2 and Tier 3 12 kV lines by September 30, 2022.

Situation Awareness

- In October 2022, an aerial imagery study was conducted on the vegetation canopy within the City limits, identifying private property areas with high vegetation outside the parameters related to the utility.
- Aerial patrols using unmanned aerial vehicles when necessary.
- Radio system replacement. Redding Police Department, REU, and Redding Fire Department transitioned to a new citywide fixed communications platform.

Operational Practices

- REU successfully implemented a new emergency notification system through the Civic Ready platform for email and text notifications to City employees related to urgent communications.
- An Emergency 911 software application was installed at the Power Control Center, providing immediate notifications directly from the Shasta Area Safety Communications Agency (SHASCOM) of wildfires in or near the City limits.

System Hardening

- As of December 22, 2022, 397 out of 800 wooden poles in high fire threat zones have been wrapped with fire retardant webbing.
- Modifications were made to one additional 12 kV distribution circuit, allowing the automatic reclosing action to be re-enabled for this circuit during red flag warnings.

7 Wildfire Mitigation Plan Metric Overview

Metrics help POU's determine if their wildfire prevention strategies are effective for reducing the risk of a wildfire ignited by their electrical equipment. In 2020 the California Municipal Utilities Association published a WMP template for POU's to use in the preparation of their WMPs. This template included two metrics: number of fire ignition events and wires down events. These two metrics are general and do not provide the POU a lot of information about the effectiveness of their wildfire prevention strategies. As POU's have gained more experience with their WMPs they have either adopted new metrics or added supplemental data, such as location, cause, and whether the event occurred in a High Fire Threat District, that increases the usefulness of these two metrics.

The REU has used the two initial metrics in the previous versions of their WMP and continues to use them in the 2023 WMP. The REU supplements the basic data collected for these metrics by recording the following information. For fire ignition events, REU records the fire threat zone location and whether the event occurred during a red flag warning. For wires down events, REU records the fire threat zone, line voltage, and cause. The data for the two metrics was published in the REU's 2022 Monitoring and Audit Report on Wildfire Mitigation, Appendix G in their WMP. Table 1 and 2 below show the data collected for each metric in 2022.

Table 1. Fire Ignitions

Fire Threat Zone	Number of Fire Ignitions	Fire Ignitions During Red Flag Warning Conditions
Tier 1	5	0
Tier 2	1	0
Tier 3	0	0

Table 2. Wires Down Event Metrics

Date	Outage No.	Fire Threat Zone	Line Voltage	Cause
3/18/22	J.E.22.03.038	Tier 1	12 kV	Third-Party
03/22/22	J.E.22.03.042	Tier 1	12 kV	Third-Party Vehicle Caused
04/25/22	J.E.22.04.055	Tier 1	12 kV	Third-Party Vehicle Caused
05/28/22	J.E.22.05.062	Tier 1	12 kV	High Wind-Tree
08/25/22	J.E.22.07.052	Tier 1	12 kV	Animal/Bird
12/27/22	J.E.22.12.084	Tier 2	Secondary	Tree

These two metrics with the supplemental data are useful for informing the REU about the effectiveness of their wildfire prevention strategies and if the utility is making progress in reducing the risk of a wildfire being started by their electrical equipment. There may be opportunities in the future as the REU collects more data for each metric for the REU to adopt additional wildfire prevention strategies based on fire ignition or wires down cause and location.

8 Comparison of Industry Standards and Similar Utility Wildfire Prevention Strategies

As part of this review of the REU's 2023 WMP, Dudek compared the wildfire prevention strategies described in the plan to the strategies being implemented by POUs that are similar to the REU in terms of service territory size, customer class, owned assets, and wildfire risk. The REU is unique in that it is a large city with a sizable service territory that is generally surrounded by undeveloped or sparsely developed lands. Other utilities of comparable size as the REU are located in urban areas. For this independent evaluator's report, the strategies of Anaheim Public Utilities (APU) and Glendale Water and Power (GWP) were selected to compare against the REU's wildfire prevention strategies. The REU, the APU, and GWP have similar assets (all have generation, transmission, and distribution assets), similar customers and customer population, and all have large wildland urban interface areas/High Fire Threat District areas within their territory. Also, all three have experienced destructive wildfires (in terms of structures lost) in their service territories.

8.1 Vegetation Management

All three utilities implement vegetation management programs that exceed GO 95 requirements to include the management of surface vegetation around and beneath electrical equipment, with the specific goal of preventing the rapid spread of a new wildfire ignition. Vegetation management techniques include the removal of chaparral or brush, mowing of annual vegetation, and the management of flammable invasive species such as scotch broom and mustard. All utilities employ several vegetation management techniques based on terrain and vegetation cover type, including manual treatment and prescribed herbivory. All three utilities actively work with their local fire departments to coordinate and fund vegetation management activities in high-risk areas in their service territories.

8.2 System Hardening

Equipment Upgrades

All three utilities have ongoing upgrade programs that are designed to reduce the risk of outage, equipment failure, and new wildfire ignitions. These include the following:

- Installing animal deterrents such as raptor framing and squirrel guards.
- Installing covered conductor (tree wire) on lines that pass through areas of thick tree canopy.
- Increasing spacing between wires attached to cross arms mounted on poles in High Fire Threat Districts.

Construction Standards

All three utilities have revised construction standards to reduce the risk of fire ignited by the failure of their electrical equipment, which include include animal deterrents, lightning arresters, and arc suppression fusing.

Pole Upgrades and Replacement

All three utilities have ongoing programs to replace combustible wooden poles and cross-arms with non-combustible steel poles. All three utilities also have programs to increase the ignition resistance of wooden poles remaining in high fire threat areas by treating the poles with fire retardant chemicals or wrapping the poles in fire retardant material.

Undergrounding

All three utilities have ongoing programs to convert overhead lines to underground where feasible and economical. All three utilities have a policy of requiring new installations to be undergrounded unless doing so would be infeasible.

Recloser Policy

All three utilities have recloser policies for circuits in their High Fire Threat Districts that include disabling automatic reclosers during periods of high fire danger such as during red flag warnings.

8.3 Situational Awareness

Cameras for Utility Operations, Fire Detection, and Mitigation

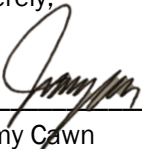
All three utilities are part of their regional network of wildfire detection cameras and have camera locations in their service territories. The REU and APU have installed several of these cameras in their territories, while GWP relies on cameras installed by investor owned utilities.

9 Conclusion

The REU has prepared a comprehensive WMP for 2023. The plan meets all statutory requirements described in PUC Section 8387(b)(2) for a POU. The REU has also considered the recommendations of the Wildfire Safety Advisory Board and revised their WMP appropriately. The REU's WMP with the provided appendices describes a wildfire mitigation program that accurately assesses the risks and risk drivers present in their service territory and implements preventative strategies that are effective at reducing the wildfire risk of these risks and risk drivers.

Based on the wildfire prevention programs described in the WMP and the progress the REU has made in its wildfire prevention programs, the REU takes the risk of wildfire in its service territory seriously and is making a serious effort to reduce the risk that its equipment starts or aids in the spread of a wildfire.

Sincerely,



Jeremy Cawn
Fire Protection Planner

Att.: A: Redding Electric Utility WMP IE Report

10 References

Carlson, A.R., Helmers, D.P., Hawbaker, T.J., Mockrin, M.H., and Radeloff, V.C., 2022, Wildland-urban interface maps for the conterminous U.S. based on 125 million building locations: U.S. Geological Survey data release, <https://doi.org/10.5066/P94BT6Q7>.

WSAB (California Wildfire Safety Advisory Board). 2022. Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electric Cooperatives Draft. Office of Energy Infrastructure Safety. October 17, 2022. Sacramento, California. Retrieved from: Wildfire Safety Advisory Board | Office of Energy Infrastructure Safety ([ca.gov](https://www.energy.ca.gov))

Attachment A

Redding Electric Utility WMP Review Summary Tables

CPUC Requirements

Public Utility Code 8387(b)(2)	Description of Required Element	Initial Review Comment	Final Review Comment
A	Staff Responsibilities	Good. Comprehensive.	Good. Comprehensive.
B	General Objectives	Good. Objective C should include an introductory statement that describes what the objective is. For example "The third goal of this plan is to minimize the spread of a wildfire within and near REU assets."	Updated. Good.
C	Program Descriptions	Good. Include fire hardening actions described in the REU's 2022 Monitoring and Auditing Annual Report on Wildfire Mitigation and on page 20 in section F-System Hardening of the WMP (page 23)	Updated. Good.
D	Evaluation Metrics	Good. Is REU considering an additional metric?	Good. Not at this time.
E	Lessons learned, metrics application	Good. Do the current metrics provide information that the strategies in the WMP are effective? Is REU considering replacing or adding a metric based on metric data collected since 2019?	Good. Yes, with the supplemental information (location, cause, etc.)
F	Protocols for reclosers, de-energization, and PSPS mitigation	Good. Does the text about automatic reclosers need to be updated with the information from the REU 2022 Monitoring and Auditing Annual Report?	Updated. Good.
G	Community Notification	More information needed. REU has several customer notification systems; its website, Facebook, twitter, and CODE RED. This section reads like REU is developing a notification system or has protocols but not a notification system. Describe the customer notification systems are already in place.	Updated. Good. REU does not use CODE RED (RPD does but not all city agencies)

Public Utility Code 8387(b)(2)	Description of Required Element	Initial Review Comment	Final Review Comment
H	Vegetation Management	Good. Comprehensive. Three vegetation management treatment types: Tree Trimming, Surface vegetation (hand and herbivory) and enforcement.	Good.
I	Infrastructure Inspections	Good. Comprehensive.	Good. Comprehensive.
J(i)	Grid Design, construction, and operation risks	Good. Comprehensive.	Good. Comprehensive.
J(ii)	Vegetation, topographic, and climate risks	More information Needed. The WSAB members know that terrain, weather, and vegetation are risk drivers for every POU with assets on undeveloped lands. Provide a more detailed description for the following list items: b) c), & f). Consolidate d), e), & g) into a detailed weather description. For example, the chaparral and mixed chaparral-pine forests on the hillsides around Redding are particularly prone to high intensity fire while the Blue Oak woodlands in the valley bottom and foothills of the Sierras are less prone to intense fire.	Updated. Good. Revised so that there is a more detailed discussion of REU specific risk drivers.
K	Identification and expansion of higher wildfire threat areas	Good.	Good.
L	Identify enterprise-wide risk	Good. Comprehensive.	Good. Comprehensive.
M	Restoration of Service	Good. Comprehensive.	Good. Comprehensive.
N(i)	Monitoring and auditing of WMPs	Good. Comprehensive.	Good. Comprehensive.
N(ii)	Identifying and correcting deficiencies	Good. Comprehensive.	Good. Comprehensive.
N(iii)	Monitoring asset inspections	Good. Consider adding a summary of the results of the REU 2022 Monitoring and Auditing Annual Report.	Updated. Good.

WSAB Recommendations for the REU

WSAB 2023 POU WMP Guidance Advisory Opinion	Description of the WSAB Recommendation	Initial Review Comment	Final Review Comment
A3-50	the WSAB reiterates its recommendation that the context setting template, cross-reference table, and other enhancements included in the informational response be incorporated in the appropriate sections of the WMP itself, preventing the need to look at different places in the WMP.	Good. The Cross Reference to Statutory Requirements is on page 3 and the context setting table is on page 15. Both are in appropriate sections of the WMP.	Good.
A3-51	Provide a short paragraph in future WMPs that describes the adoption, public comment, and any altered budget processes within the WMP itself, as envisioned by the proposed new WSAB WMP template.	Good. Addressed in Chapter 9 on page 32.	Good.
A3-51	Change text stating "Redding is obliged to submit its annual WMP to the CPUC", to the WSAB. This should be corrected to avoid public confusion.	Good. Correction made on Page 5	Good.

WSAB 2023 POU WMP Guidance Advisory Opinion	Description of the WSAB Recommendation	Initial Review Comment	Final Review Comment
A3-51	The WSAB requests that Redding file and perhaps more prominently point to the REU's 2022 Monitoring & Auditing Annual Report on Wildfire Mitigation and find a way to incorporate the annual strategy progress reporting more concretely within the filed WMP.	Good. I recommend adding to the WMP the specific system hardening work REU did in 2022 (pole wraps, fault indicators, animal guards, and wire covers, etc.) that are described in the 2022 audit.	Good.
A3-51	Include a version history section and a description of changes section in the WMP.	Good.	Good.
A3-51	Discuss the impact of climate change on wildfire risks and potential mitigation actions to address those increased risks. The WSAB notes that there is very little information related to climate risks and potential changes in those risks in the Redding WMP.	Addressed in Chapter 4, Section D Geographical and Climate Risk. Update text on page 20 "Arborists perform the work listed below annually prior to the north state fire season that traditionally begins in May each year". To reflect climate change discussion in Chapter 4.	Good.
A3-52	Update Appendix D, an update appears to have been missed on page 18, which states that the program specifics are being designed and will be completed by mid-2021, 6 months prior to the date of the WMP.	Good. Table on page 2 of Appendix D has been updated.	Good.

WSAB 2023 POU WMP Guidance Advisory Opinion	Description of the WSAB Recommendation	Initial Review Comment	Final Review Comment
A3-52	Provide a description as to whether there are 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.	Not addressed. Could be incorporated into the WMP if WAPA has a working relationship with REU and share wildfire prevention resources. Otherwise, can be omitted. Other POU's are not recommended to describe their relationship with adjacent POUs, IOUs, etc.	Good. Based correspondences with REU staff, the REU obtains power from WAPA facilities but is not dependent on them. Wildfire related reliability concerns are not relevant.

REU WMP Comments

Location	page	Final Review Comment	Initial Review Comment
Chapter 5 F Strategy-Public Safety and notification	23	Correction. Text "Provide a web-based map for the public to see current outages and estimated restoration times; "Map is online on REU website, revise text to present tense.	Corrected
Chapter 8 B Impact of Metrics on Plan	30	Typo. Text "Notable changes include the implementation of a workforce management program, <u>contacting</u> with vendors for vegetation and equipment inspection, and..." should be "Notable changes include the implementation of a workforce management program, <u>contracting</u> with vendors for vegetation and equipment inspection, and..."	Corrected
Chapter 9 C Independent Evaluation	32	Correction. Text "REU's three-year review was conducted by Dudek Consulting in January of 2023" should be changed to "REU's three-year review was conducted by Dudek in January of 2023".	Corrected
REU's 2022 Monitoring & Auditing Annual Report on Wildfire Mitigation	9	Typo. Text "used in 2020 and 2021 to confirm the effectiveness of the <u>passed</u> vegetation inspection program." should be corrected to "used in 2020 and 2021 to confirm the effectiveness of the past vegetation inspection program."	Corrected