

COLTON ELECTRIC UTILITY WILDFIRE MITIGATION PLAN 2021 INFORMATIONAL RESPONSE

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

August 11, 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. [POU] 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 [POU]’s Wildfire Mitigation Plan (WMP) where the topic is addressed. Where the recommendation is not applicable to [POU], 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	CEU	
Service Territory Size	15.5 square miles	
Owned Assets	X Transmission X Distribution X Generation	
Number of Customers Served	16,236 customer accounts	
Population Within Service Territory	54,828 people	
Customer Class Makeup	<i>Number of Accounts</i>	<i>Share of Total Load (MWh)+</i>
	80 % Residential; 19 % Small/Medium Business; 1 % Commercial/Industrial	82 % Residential 13 % Small/Medium Business 5 % Commercial/Industrial
Service Territory Location/Topography¹	1% Barren/Other 20% Herbaceous 15% Shrub 65% Urban 1% Water	

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>.

Service Territory Wildland Urban Interface² (based on total area)	N/A % Wildland Urban Interface; N/A % Wildland Urban Intermix;
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	<input checked="" type="checkbox"/> Includes maps (Page 13) Tier 2: % Tier 3: %
Prevailing Wind Directions & Speeds by Season	<input type="checkbox"/> Includes maps The CEU service territory experiences wind patterns normal of the San Bernardino valley with predominant winds from the W at 5-10 mph with gusts of 20 mph being common in the spring and summer, winds in the fall and winter are predominantly from the N 0-5 mph. The seasonal Santa Ana winds in the Fall produce strong NE winds with gusts of +50 mph being common in the most wind prone areas.
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 77 miles Overhead Trans.: 11 miles Underground Dist.: 97 miles Underground Trans.: 0 miles
	Explanatory Note 1 - Methodology for Measuring "Miles": NA
	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	<i>Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)</i>
	Tier 2:N/A% Tier 3:N/A %
	<i>Overhead Transmission Lines as % of Total Transmission System (Inside and Outside Service Territory)</i>
	Tier 2: N/A % Tier 3: N/A %
	Explanatory Note 4 – Additional Relevant Context: [e.g., explain any difference from data reported in WMP due to different numerator used for this form]
Customers have ever lost service due to an IOU PSPS event?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No CEU would consider the option to pre-emptively shut off electricity at the request of a public safety official in response to a declared local emergency such as an active wildfire
Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No During periods of elevated fire risk, CEU initiates enhanced operational readiness processes to mitigate the risk of a new ignition due to equipment failure.

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

	protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	
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 6 Page 13
Vegetation Management	PUC § 8387(b)(2)(H): Plans for vegetation management.	Section 7 Page 14
Inspections	PUC § 8387(b)(2)(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section 8 Page 14
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 9 Page 15
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 10 Page 16
Enterprisewide Risks	PUC § 8387(b)(2)(L): A methodology for identifying and presenting enterprisewide safety risk and wildfire-related risk.	Section 11 Page 17
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 12 Page 17
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.	Section 13 Page 17

	<p>(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.</p> <p>(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.</p>	
Qualified Independent Evaluator	<p>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.</p>	Independent Evaluators Report

IV. WSAB GUIDANCE ADVISORY OPINION RECOMMENDATIONS

The WSAB Guidance Advisory Opinion identifies 14 specific recommendations that POU’s 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 POU’s 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 POU’s 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. In the WMP see Introduction section and section 2.

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: The WMP is made available to the public for review and is presented to the Colton City Council annually for public comments and approval by resolution by the Council. The Interim Public Works and Utilities Director will present the report and findings to the Colton City Council at this public hearing.

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's Report is available on the on the City of Colton's website.

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

POU Response: This document incorporated, as appropriate, the recommendations in the WSAB’s Guidance Advisory Opinion for the POU’s 2021 WMP. The 2021 WMP for the CEU has been updated to a new format based on the information provided to the CEU by the California Municipal Utilities Association.

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 POU's 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: Because the CEU imports all of its power from SCE there is the possibility that its customers will be impacted by an IOU PSPS event. The CEU has some internal power generation capacity and could compensate for some of the lost load. The degree to which customers are impacted will depend on how much of the imported load is lost.

There are five SCE transmission lines connected to CEU's system. If three of the lines were shut down then the CEU's internal generation capacity would be able to make up for the lost load with no noticeable impacts to customers. If all five lines are shutdown then there would be noticeable impact to CEU customers

With the internal generator operating, CEU has the ability to maintain power to circuits in the high fire risk districts as necessary while also maintaining service to selected areas north of the Interstate 10, an area that includes medical facilities, the police station and city hall.

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: The CEU does not utilize preventative de-energization for wildfire prevention within the high fire threat districts in its territory. As a result the CEU does not have it's own communication plan for notifying customers. In the event of a declared emergency where the CEU was asked by a public safety official to shut down power to a portion of its system the CEU would coordinate it's communication efforts with the local Police and Fire Department as well as the regional Emergency Operations Center. This would include

- Posting information about the planned shut-down and the area affected on the City's web site using the alerts and newsfeeds.
- Posting information about the planned shut-down on the City's social media accounts.
- Notifying critical facilities within in it's territory by phone or email.

Since the CEU relies on power imported from SCE and there is the potential that CEU customers will be impacted by a SCE initiated de-energization event. The CEU supplements SCE's PSPS notification process by posting information about the PSPS event on the City's web site and social media accounts.

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: The Southern half of the CEU's territory lies within a high fire threat district (tier 2 or tier 3). For the portion of the system within this area the CEU has identified a wire down event as being the most likely cause of a new ignition. To mitigate this risk the CEU has implemented two complementary programs; 1) the CEU has installed or required that the majority of the electrical system within the high fire threat districts has been located underground. The portions that are located above ground are located within a developed public right-of-way along a major road. Only a small portion of the CEU's equipment located in the high fire threat is located above ground and passes through an unimproved area with continuous vegetation. 2) for the portions of the system within the high fire threat district with above ground wires the CEU is installing line protection and replacing flammable pole components with non-flammable components.

The CEU does not utilize PSPS or preventive de-energization events to mitigate wildfire risk and does not have system hardening programs designed to mitigate or prevent these events.

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: CEU staff performs annual visual inspections of all of the circuits in the high fire threat districts for damage or malfunctioning equipment. The utility has recently acquired an aerial drone and has added its capabilities to its inspection program by using the drone to inspect equipment that is difficult to inspect from the ground and by using its IR camera to look for hotspots on equipment. City-wide the CEU's wooden utility poles are inspected on a three year basis by a contractor to ensure the poles are stable and structurally sound . In addition to equipment inspections CEU and Public Works staff perform annual vegetation inspections of the circuits in the high fire threat districts for trees that are growing too close to over head wires and accumulated flammable surface vegetation that is growing near electrical equipment.

During red flag conditions or periods of high fire danger the CEU operates an enhanced inspection program with CEU staff performing daily inspections of equipment in the high fire threat districts.

If a portion of the CEU's system were disrupted by a wildfire then the affected lines would be de-energized and every potentially affected line would be inspected prior to reenergization.

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: CEU staff meet regularly to review and investigate the causation of unscheduled outages. Risk drivers such as conductors contacting foreign objects , and equipment failure are reviewed. Outage data is assessed to identify specific causes of failures or related problems and recommendations made to engineering and operations staff should this data reveal trends (such a transformer or fuse failures).

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: In the areas of the CEU's territory that are considered high fire threat the principal wildfire risks that have been identified are a wire down event and vegetation contact with wires. There are no particular risks that are unique to the CEU's system because the majority of its circuits in the high fire threat districts are underground and the portions that are above ground run along major roadways in the valley bottoms from the edge of it's territory to the edge of the high fire threat district. The CEU's territory does contain several transmission wires operated by SCE and in some locations CEU and SCE equipment share utility poles. There are no G.O. 05 exempt assets in the CEU's territory.

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. While the Southern portion of the CEU territory contains the rugged terrain of the San Jacinto Mountains, its equipment is largely located in the gentler terrain of the valley bottoms where the developed areas are.

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- How will the utility address risks associated with facilities requiring power that abut a Tier 2 or Tier 3 HFTD?

POU Response: The CEU performs vegetation and equipment inspections on all of its infrastructure on regular basis including the portions of its system that lie outside of the high fire threat district

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

*POU Response:*The CEU assesses risks associated with system design and construction through physical inspections and aerial drone inspections of its infrastructure.

For future development in the City's HFTD the CEU requires new electrical lines to be placed underground.

- 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: The CEU's infrastructure meets or exceeds all G.O. 95 standards.

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: The CEU's territory experiences weather typical of the San Bernardino Valley. Winter is characterized by average high temperatures of 68° and an average low temperature of 42°. Winter winds are predominantly from the North 0 to 5 mph. Spring is characterized by average high temperatures of 76° and an average low temperature of 49°. Spring winds are predominantly from the West 5 to 10 mph. Summer is characterized by average high temperatures of 94° and an average low temperature of 58°.

Summer winds are predominantly from the West 5 to 10 mph. Fall is characterized by average high temperatures of 82° and an average low temperature of 53°. Fall winds are predominantly from the West 5 to 10 mph. The region typically experiences Santa Ana winds in the Fall that result in strong winds from the northeast with gusts exceeding 40 mph.

As a department of the City of Colton the CEU integrated with City's situational awareness assets and does not have any assets of its own. The CEU utilizes the situational awareness assets of the local Fire Department and the regional emergency operations center to monitor weather and local fire conditions as well as to alerts about nearby incidents.

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: The CEU's vegetation management program is discussed in Section 7 of the WMP. The Vegetation Management Program includes physical inspections of trees and surface vegetation near electrical equipment to ensure compliance with to the vegetation clearance requirements of Public Resource Codes 4292 and 4293, GO 95 Rule 35, and GO 95 Rule 35 Appendix E. The CEU maintains a contracted tree trimming service to perform the routine annual tree trimming and vegetation management for the utility as well as being available to respond to immediate requests for tree trimming or vegetation removal services.

The following provides responses to specific questions included in the WSAB's 2021 WSAB Guidance Advisory Opinion:

- Describe the reasoning behind each treatment plan and the ecological impact of the treatment options chosen.

POU Response: Tree and surface vegetation trimming was chosen based on the annual cost to perform the treatments and past effectiveness of the treatment at controlling hazardous vegetation. The CEU's circuits in the high fire threat districts largely follow major roads and the adjacent vegetation can be classified as ornamental landscaping or herbaceous ground cover. Ecological impacts are minor; tree trimming is limited to the portions of the tree near the wires and removal is only considered when the tree is dead or an immediate threat of falling onto the equipment. Surface vegetation is largely annual grasses and herbaceous plants and is not negatively impacted where it is mowed near equipment.

- Describe how vegetation management in the HFTD or Fire Threat Zones differs from other areas, including within private property and urban landscaping.

POU Response: 1) outside of the HFTD trees are not trimmed as far back from the power lines, and 2) outside of the HFTD surface vegetation is not treated.

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- Describe any enhanced vegetation management that goes beyond the minimum G.O. 95 standard.

POU Response: In the high fire threat districts the CEU attempts to keep maintain a 10'-foot clearance area between lines and all tree branches and foliage on lines up to 12 kV lines and a 3 to 4 feet of clearance area between tree branches and secondary wires.

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- A list of native and non-native species in the POU's Service Territory and describe how treatment methods vary.

POU response: The north half of the CEU territory is urban and contains a mix of ornamental herbaceous and woody plants. The southern half of the CEU contains the La Loma Hills and the foothills of the San Jacinto mountains that are vegetated with a mix of native chaparral and non-native herbaceous plants that are dominant on the undeveloped slopes and non-native ornamental vegetation that are dominant in the developed areas the valley bottoms. Stone Pines (*Pinus* spp.), Pepper trees (*Schinus* spp.), and Fan Palms (*Washingtonia* spp.) are the most common ornamental tree species near the CEU's above ground equipment in the service territory. Surface vegetation is composed of turf grass in the maintained areas and non-native weeds (e.g. Mustards (*Brassica tournefortii*)) or bare ground in the areas that are not maintained.

The CEU's above ground circuits do not pass through any areas of native vegetation and there is no variation in treatment types.

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- Describe how the POU tracks new vegetation growth that occurs in areas that has previously been cleared or treated.

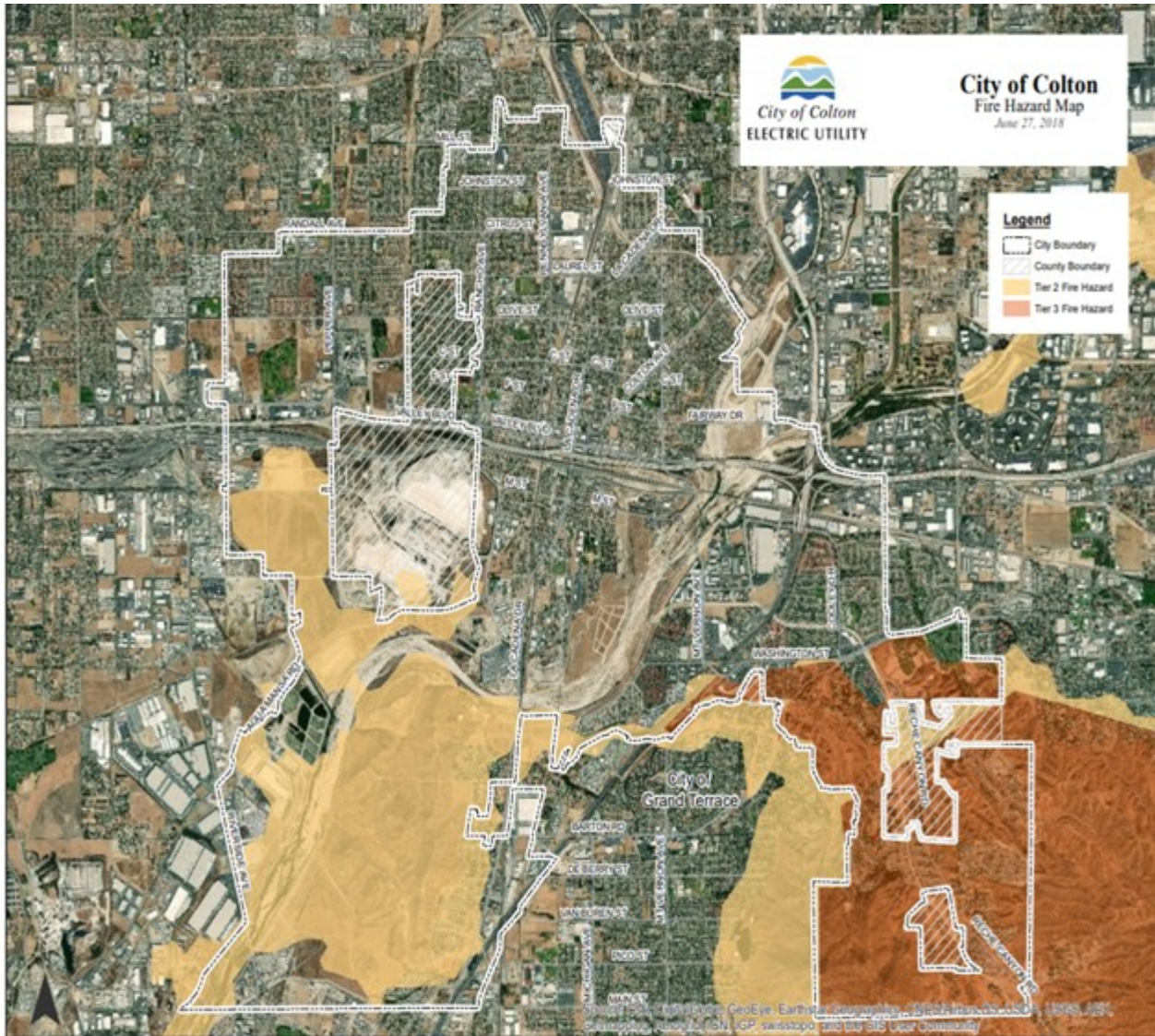
POU Response: Annual visual inspections of vegetation are performed along the CEU power lines and within the utility easements to create an inventory of vegetation that may need abatement to maintain compliance with PRC 4293 and GO 95 standards.

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: N/A

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

POU Response: The CEU has not considered any alternative approaches to vegetation management. The current vegetation management methods used by the utility are effective at controlling hazardous vegetation near equipment.



Map of the Colton Electric Utility Service Territory with HFTD overlay