# BURBANK WATER AND POWER WILDFIRE MITIGATION PLAN 2021 INFORMATIONAL RESPONSE

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

June 11, 2021

# 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. BWP 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 BWP's Wildfire Mitigation Plan (WMP) where the topic is addressed. Where the recommendation is not applicable to BWP, 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	BWP	
Service Territory Size	17 square miles	
Owned Assets	⊠ Sub-Transmission	
Number of Customers	52,970 customer accounts	
Served		
Population Within Service	103,703 people in 2019	
Territory		
	Number of Accounts	Share of Total Load (MWh)
	87.0% Residential	25.4% Residential
Customer Class Makeup	10.2% Small Commercial	7.3% Small Commercial
Customer Class Wakeup	2.4% Medium Commercial	18.9% Medium Commercial
	0.3% Large Commercial	20.2% Large Commercial
	0.1% Extra Large Commercial	25.1% Extra Large Commercial
Service Territory	17% Barren/Other	
Location/Topography <sup>1</sup>	83% Urban	
Service Territory	28% Wildland Urban Interface	
Wildland Urban Interface <sup>2</sup>		

<sup>&</sup>lt;sup>1</sup> 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: <a href="https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3">https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3</a>.

<sup>&</sup>lt;sup>2</sup> 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/rmap/nrs8.pdf.

(based on total area)		
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	<ul> <li>         ⊠ Refer to 2021 WMP, Section 4.3.1, Figure 4 for a map of BWP's Tier 2 High Fire Threat District         Tier 2 including area having no electrical facilities: 28%         Tier 2 based on area with only overhead electrical facilities: 9%         Tier 3: 0%     </li> </ul>	
Prevailing Wind Directions & Speeds by Season	☐ Includes maps intermittent, westerly and easterly winds	
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 204 circuit miles Overhead Trans.: 59 circuit miles Underground Dist.: 129 circuit miles Underground Trans.: 30 circuit miles	
	Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)	
Percent of Owned Lines in CPUC High Fire Threat	Tier 2: 5.4% (of total circuit miles) Tier 3: 0%	
Districts	Overhead Transmission Lines as % of Total Transmission System (Inside and Outside Service Territory)	
	Tier 2: 0% Tier 3: 0%	
Customers have ever lost service due to an IOU PSPS event?	☐ Yes ⊠ No	
Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?	☐ Yes ⊠ No	
Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?	☐ Yes ⊠ No	
Has previously pre- emptively shut off	☐ Yes ☒ No If yes, then provide the following data for calendar year 2020:	
electricity in response to elevated wildfire risk?	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	PUC § 8387(b)(2)(A): An accounting of the responsibilities of	Section 7.1
Responsible	persons responsible for executing the plan.	Page 44
Objectives of	PUC § 8387(b)(2)(B): The objectives of the wildfire mitigation	Section 1.3
the Plan	plan.	Page: 11
Preventive Strategies	PUC § 8387(b)(2)(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Section 3,5 Page 14,31
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 7.2 Page 45
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 7.2.2 Page 47
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 5.3.1,5.5 Page 36,39
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 6.3 Page 43
Vegetation Management	PUC § 8387(b)(2)(H): Plans for vegetation management.	Section 5.2.2 Page 34
Inspections	<b>PUC § 8387(b)(2)(I): Plans for inspections</b> of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section 5.2.1 Page 34

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 4.2,4.3,4.5 Page 16,20,29
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 4.3.3 Page 24
Enterprise-wide Risks	PUC § 8387(b)(2)(L): A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.	Section 4.1 Page 16
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 6.4 Page 43
Monitor and Audit	PUC § 8387(b)(2)(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following  (i) Monitor and audit the implementation of the wildfire mitigation plan.  (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.  (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	Section 7.3 Page 48

Qualified Independent Evaluator
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# IV. WSAB GUIDANCE ADVISORY OPINION RECOMMENDATIONS

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

# A. Plan Structure

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

**POU Response:** See Sections II and III above.

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

**POU Response:** BWP addresses public comment and presentation of the WMP to its Board and Council in Sections 8.1 and 8.2 of BWP's WMP.

**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:** A summary of the most recent IE Report to the WMP is included in Section 8.3 of BWP's WMP. BWP also uses the IE Report as a tool for its internal audit as described in Section 7.0 of BWP's WMP.

**WSAB Recommendation #4:** Develop, in collaboration with POU industry associations, WMP guidelines for future WMPs, with the 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:** BWP's customers are unlikely to be directly impacted by an IOU PSPS event because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS. 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: This is not applicable to BWP because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS.

#### Does the POU receive advance notification?

*POU Response:* This is not applicable to BWP because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS.

#### • Is the POU affected at the transmission or distribution level?

*POU Response:* This is not applicable to BWP because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS.

# • Is the POU implementing a mitigation strategy for IOU PSPS?

*POU Response:* This is not applicable to BWP because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS.

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

*POU Response:* This is not applicable to BWP because BWP is not served by an IOU having a PSPS, but rather is directly served by the Los Angeles Department of Water and Power, who does not use PSPS.

- Does the POU distribute back-up generators to customers?
   POU Response: BWP does not distribute back-up generators to customers.
- Does the POU de-energize their own lines when a wildfire threat looms, even if it is not labelled a PSPS?

*POU Response:* BWP's approach to pre-emptive de-energization is described in Section 5.5 of the BWP WMP.

In the above instance, what customer communication takes place?

*POU Response:* Burbank's fire agency emergency response and BWP's communication protocol are described in Sections 6.2.1 and 6.3 of the BWP WMP.

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

*POU Response:* BWP is served by the Los Angeles Department of Water and Power, BWP's Balancing Authority.

**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:** BWP addresses the City of Burbank's fire agency emergency response and BWP's communication protocol in Sections 6.2.1 and 6.3 of the BWP WMP.

# 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:** BWP's approach to grid hardening is discussed in Section 5 of BWP's WMP. BWP has implemented strategies and programs to mitigate the threat of electrical infrastructure-related wildfires within Tier 2 HFTD area of its service territory. As previously mentioned, the prevention strategies and programs are developed to address four primary fire safety categories including facility design and construction, inspection and maintenance, operational practices, and situational/condition awareness. 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:* Critical facilities within BWP's Tier 2 area are identified in Section 4.4, Figure 6 of BWP's WMP.

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

*POU Response:* BWP has implemented strategies and programs to mitigate the threat of electrical infrastructure-related wildfires within Tier 2 HFTD area of its service territory. These strategies and programs are discussed in detail in Section 5 of BWP's WMP.

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

*POU Response:* BWP has implemented strategies and programs to mitigate the threat of electrical infrastructure-related wildfires within Tier 2 HFTD area of its service territory. These strategies and programs are discussed in detail in Section 5 of BWP's WMP.

 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:* BWP has sufficient water resources to assist with water delivery during firefighting in the Tier 2 Zone. No additional hardening projects are necessary at this point.

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

*POU Response:* Most hillside pump stations do not have fire protection. In addition, there are no sewage treatment plants located in the Tier 2 area.

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

*POU Response:* If desired, customers are responsible for providing supplemental generation such as backup batteries or backup power facilities.

- Are the majority installed by the customers themselves or the utility?
   POU Response: A majority of supplemental generation such as backup batteries or backup power facilities would be installed by the customers.
- Can the utility open and close taps? Can the utility back-feed?

  POU Response: BWP has the ability to open and close feeder tie points to allow for isolation and alternative feed sources.
- Are there wildfire related circumstances wherein either of these tactics would be useful?

*POU Response:* Having the flexibility to isolate portions of the distribution system and having alternative feed sources can be beneficial during a wildfire related circumstances.

Can the utility sectionalize in a localized fashion?
 POU Response: The utility can sectionalize its circuits in a localized fashion by opening disconnect switches.

**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:** BWP addresses inspection/maintenance of BWP's electrical assets and related system improvements in Section 5.2 of BWP's WMP. A description of line patrols associated with a critical fire weather event, such as a Red Flag Warning condition, is included in Section 5.4.

**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. BWP's staff will participate in CMUA's meeting and will discuss any changes that BWP 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:** BWP's assessment of wildfire risks is discussed in Section 4 of BWP's WMP. BWP performed a fire risk assessment of its electrical system and equipment utilizing risk bowtie analysis, a site fire environment assessment, and an electrical equipment assessment. 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:* Not withstanding any pertinent issues already described in Section 4 and 5.1 of BWP's WMP, BWP is not aware of any design or construction issues related to BWP's specific topography or geographic location that the Board should be aware of.
- How does the utility assess its risks associated with system design and construction?

*POU Response:* BWP uses its fire risk assessment to prioritize its wildfire preventative strategies and programs, including facility design and construction mitigation measures, as discussed in Section 5 of BWP's WMP.

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: Examples of design and construction standards that BWP has or will
be implementing and that go beyond G.O. 95 or other General Order standards are
grid hardening efforts such as composite pole installations, overloaded transformer
replacements and conventional fuse replacements.

#### 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:** Burbank's Tier 2 area can experience intermittent, westerly and easterly winds. BWP's ECC monitors National Weather Service warnings, watches and coordinates with other agencies and third parties in the area, and will use a camera stationed at the peak of the Verdugo Mountains for enhanced situational awareness. BWP has also implemented an Outage Management System based on a Geographical Information System (GIS) and Advanced Metering Infrastructure (AMI) to improve its situational awareness of the electrical system. These items are described further in Section 5.4 of BWP's WMP.

#### 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: BWP's vegetation management program is discussed in Section 5.2.2 of BWP's WMP. BWP meets or exceeds the minimum industry standard vegetation management practices. For all electrical facilities, BWP meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) GO 95 Rule 35; and (4) the GO 95 Appendix E Guidelines to Rule 35. BWP will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance. 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:* BWP will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance.

 Describe how vegetation management in the HFTD or Fire Threat Zones differs from other areas, including within private property and urban landscaping.
 POU Response: BWP performs routine vegetation management, such as pruning and removal, on an annual basis in the Tier 2 HFTD. BWP performs this work outside of the Tier 2 HFTD on a 2 to 3-year cycle.

**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:** BWP worked with contract fire experts as well as Burbank's local fire department to assess fire risk within the service territory and contribute to the development of BWP's WMP. The findings of this assessment can be found in Section 4.3 of BWP's WMP. BWP also hired contract line clearance tree trimming crews, supervised by a certified arborist, to perform vegetation management as outlined in Section 5.2.2 of BWP's WMP.

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

**POU Response:** BWP has considered the use of innovative vegetation management technology such as LiDar to assess vegetation clearance from lines. However, BWP determined that this technology was not applicable due to the small, dense urban

service territory coupled with annual vegetation inspections and line clearance tree trimming. On page 30 of the qualified independent evaluation report, the evaluator confirmed that this best practice was not applicable to BWP.