



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD



TO: Commissioners Brown, Carlson, Barofsky, McRae and Schlossberg
FROM: Tyler Nice, Electric Division Manager; Jeannine Parisi, Resiliency Program Manager
DATE: November 20, 2022
SUBJECT: 2022 Wildfire Season Review and Wildfire Mitigation Plan Update
OBJECTIVE: Information

Issue

This is an informational update recapping activities undertaken during the 2022 wildfire season and previewing near-term mitigation efforts.

Background

Cool spring temperatures and June precipitation delayed the start of this year's wildfire season. Then, July brought the start of a long dry spell that, coupled with persistent drought conditions, elevated risk conditions over the summer months and well into October. More erratic weather is one variable contributing to the complex and dynamic landscape for wildfire in Oregon. In response, EWEB is adapting our operations, maintenance, and training practices, while consolidating dispersed risk reduction and resiliency investments into a formal wildfire mitigation plan (WMP). This is in line with the utility's Continuous Improvement framework, and we are now in the 'Check' phase of this program where staff apply and update processes as needed to meet our objectives more effectively.

The Board approved our first WMP in July and, as required, the plan was filed with the Oregon Public Utilities Commission (PUC). On August 4, the PUC completed its rule-making process and adopted a slightly amended set of rules governing utility WMPs. These rules became effective September 8. Another PUC docket is open to address a few discrete issues that remained unresolved in the original proceedings.

Discussion

Highlights of last year's wildfire season activities are described below.

Operations and Maintenance

Annual right-of-way inspections and tree-trimming, as well as visual patrols for proactive maintenance, were completed for all circuits in the High Risk Fire Zones (HRFZ) in the spring. Emergency repairs and referrals to joint users were made, while other less time-sensitive repair work is on-going, including 140+ crossarms replacements. In addition to routine maintenance work, vegetation management crews conducted a tree-thinning project at Dillard Substation, removing 20 overgrown trees while cleaning up weeds and other undergrowth that could create a fire hazard. Crews also removed 60-70 trees at the end of Leashore Drive that were impacted by the Holiday Farm Fire but not cleared as part of ODOT's work. Additional upriver fuels reduction work was completed on private properties through the Pure Water Partnership using state grants and EWEB funds.

Situational Awareness

With support from Oregon Department of Forestry staff, EWEB conducted two in-person wildfire prevention and response trainings for EWEB field crews and other key staff. This included inspection and certification of EWEB's equipment readiness as required for crews to continue to work safely throughout fire season. As shared in previous Board communications, the first AlertWildfire camera in the McKenzie Valley was installed at the Smith Communications Tower in partnership with the University of Oregon and Elevate Technology. This camera was used to identify and verify a small fire created by a lightning strike adjacent to the Carmen-Smith project. Early detection improved response time and helped quickly contain the fire, avoiding operational impacts to EWEB's facility. EWEB continues to look for other partnership opportunities for additional coverage, specifically for the south end of our service territory. To increase EWEB's access to localized weather data, a new weather station will be installed at the Hayden Bridge Filtration Plant later this year. This shared asset will provide important data to treatment plant operators, such as precipitation, as well as enable user-defined notifications when certain weather conditions are detected for wildfire risk situational awareness.

Grid Hardening

This year's most high-profile project involved removing 31 miles of idle 69kV transmission in the upriver HRFZ, including 159 poles spanning five miles. By interconnecting to adjacent BPA lines, EWEB estimates the project saves \$10M in repair and replacement costs, not to mention on-going tree trimming. As part of the decommissioning project, crews took the opportunity to reconfigure area distribution lines to 'slim-line format.' This vertical configuration allowed removal of some 80 cross-arms, which can be a point of failure during winter storms, and increased clearance from nearby trees. Reducing the chances that branches contact wires during wind events is a priority for wildfire risk mitigation.

Operational Response – Red Flag and PSPS Events

In 2021, EWEB developed a process to place parts of the electric system in 'protective settings' when weather conditions heighten fire danger, such as Red Flag Warnings. Prior to the 2022 wildfire season, refinements were made to internal communication procedures to improve operational readiness and to establish clear lines of responsibility should a related outage or fire occur. In mid-July, several Red Flag Warnings were issued in a short span of time but for different parts of EWEB's service territory, complicating operational decision-making and public communications. For example, should we alert the public to a Red Flag Warning impacting just the Carmen Transmission corridor, even though customers would not be impacted if this line-tripped off while in protective settings? Given heightened public concern around wildfire, especially for the upriver community, we ultimately posted messaging on our social media channels. Management also decided that for simplicity and as an extra measure of safety, to leave the HRFZ circuits in protective settings for the remainder of the fire season and track outages to see if this practice had unacceptable impacts to reliability. Circuits were returned to normal settings on October 24. An evaluation of HRFZ outage events is underway to support continued refinement of our operational procedures and triggers for changing system settings.

EWEB's operational response was further tested in early September, when National Weather Service forecasts indicated weather conditions similar to what occurred over the 2020 Labor Day weekend. EWEB stood up its Incident Command System structure to prepare for possible de-energization of circuits in the High Fire Risk Zones and began consulting with neighboring utilities, Lane County Emergency Management and public safety partners. With forecast weather unchanged, and in coordination with Lane Electric Cooperative, Management made the difficult decision to enact its first Public Safety Power Shutoff (PSPS). The PSPS impacted about 3,000 upriver customers over a 36-hour period (Friday Sept 9 – Sunday, Sept 11). Communications included 21 social media posts, 6 earned media stories, 2 customer email alerts, and an EWEB.org newsroom story. EWEB conducted an internal post-event hotwash and debriefed with area utilities. See Attachment 1 for the PSPS impact area map and a summary of lessons learned from this event.

Public Engagement and Interagency Coordination

Once again, our Communications Team conducted a multiprong wildfire season awareness and prevention public information campaign. This year's topics included vegetation management work, adoption of EWEB's first WMP, mitigation projects underway, as well as outage readiness messaging. Communications channels ranged from traditional news media coverage, amplified through our social media channels, to an emergency preparedness e-newsletter to customers. Public outreach metrics will be included as part the 2023 WMP.

Coordination with interagency stakeholders, including local fire agencies, ODF and other utilities, is ongoing. Of note, EWEB reached out to our fire partners to share highlights of the WMP and elicit their input on areas of elevated concern in and around the High Risk Fire Zones. These insights were incredibly valuable when considering the September PSPS impact boundary. Information-sharing with other utilities, through formal trainings and regional meetings, is another high-value activity to keep current with best practices.

PUC Updates

EWEB submitted another round of comments on the AR 638 rulemaking to the PUC in late June, in partnership with the Oregon Municipal Electric Utilities and the Oregon People's Utility District Associations. These comments were mostly narrow in focus, such as clarifying definitions, setting correction timeframes for equipment violations in the HRFZs, and cost-recovery should electric utilities replace joint users' equipment. However, there were a few technical details that could have broader implications to the consumer-owned utilities (COUs) if adopted by the PUC. Specifically, the COUs argued that a provision requiring them to detail how inspection programs and training will be conducted in their WMPs was more properly left to our governing boards and would be evident to the PUC through its safety audit program. PUC staff were open to these suggestions, and most were reflected in the final set of rules. Because EWEB's adopted WMP exceeded many of the proposed rule-making provisions, no significant compliance-related updates are anticipated for the 2023 Plan.

2023 Planning Work

Continuous improvements to the Wildfire Mitigation Plan are under consideration as we put plans into practice and learn from experience. In addition to addressing issues raised at the PSPS hotwash, there is a body of work initiated in 2022 that will carry over into the coming year that includes:

- Changes to the Outage Management system to track electric equipment-caused ignition events
- Phase II Wildfire Risk Analysis to further refine the HRFZs (system-wide but with focus on Wildland Urban Interface areas)
- Dedicated resources for electric standards development, including for equipment replacements in HRFZs.
- Identification of potential capital investment projects that promote multi-hazard risk reduction improvements in HRFZs and assessing state/federal grant opportunities to accelerate this work.

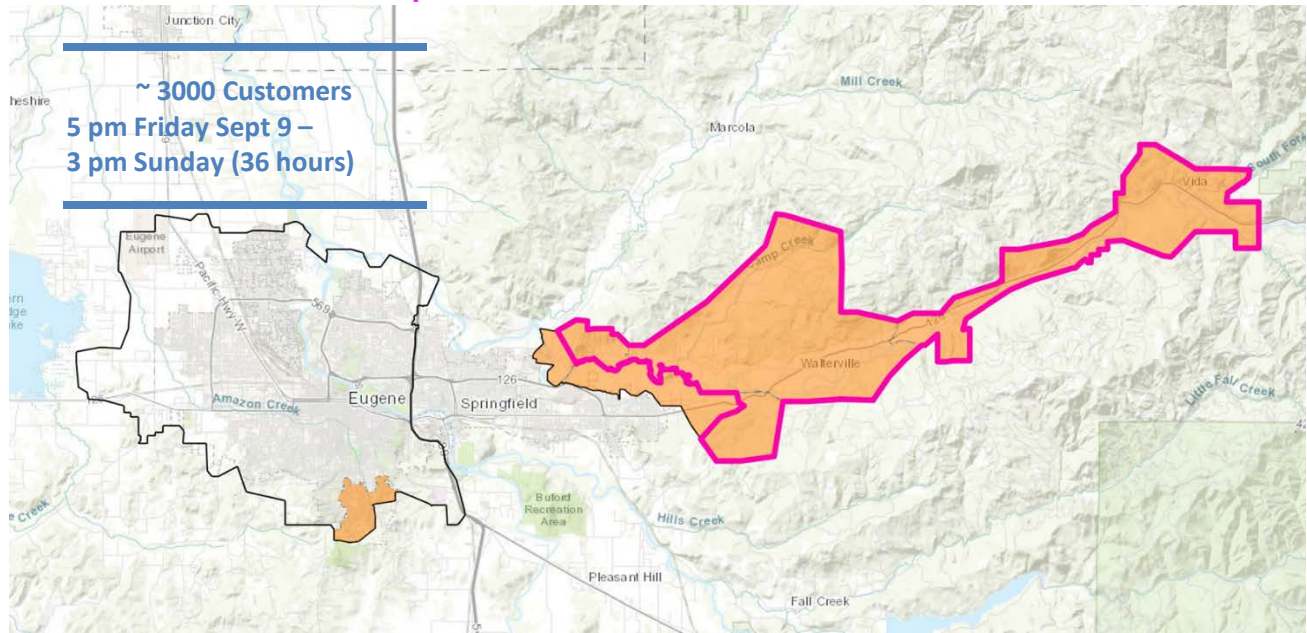
EWEB continues to offer programs to support customers impacted by the Holiday Farm Fire (HFF), such as financial assistance with undergrounding secondary services as part of the rebuild process. In response to a question at the July 5, 2022 Board meeting, staff discussed the possibility of expanding this program to customers outside the HFF area. With some minor exceptions, City code requires utilities to be placed underground for new construction. Therefore, an expansion within the City would target existing homes, where undergrounding is likely to be more expensive and require significant EWEB financial assistance for any meaningful uptake. There may be greater cost/benefit to offer such an incentive for new construction outside City limits, but again we would expect limited uptake due to the amount of available greenfield development upriver. That said, this concept remains under consideration and can be weighed against other potential wildfire mitigation investments.

Related to new customer programs, staff are exploring options to better support customers with functional and access needs during extended power outages. One near term objective is to better understand what advance communication methods and timelines would help those who rely on electric-powered medical devices or have mobility limitations to safely remain at home or arrange transportation if a PSPS is called. Interviews with other utilities and agency stakeholders are underway with the goal of presenting possible short and longer-term solutions to Management in Q1 2023.

Recommendation/Requested Board Action

Feedback and guidance is encouraged, but no action is required at this time. The updated 2023 plan will be provided for Board review and adoption in the May/June timeframe.

September 2022 PSPS IMPACT AREA



PSPS LESSONS LEARNED	
What Worked Well	Ideas for Improvement
<p>Early Notice/Pre-Event Planning</p> <ul style="list-style-type: none"> - Timely alert to EWEB from ODF re: elevated weather concern - Internal pre-planning including ICS roster build-out, situational awareness communications & strategy meetings 	<p>Enhance Event and Contingency Planning</p> <ul style="list-style-type: none"> - PSPS placed some circuits on single feeds, so consider what would happen if outages occurred on these circuits. - Engage Generation and Water formally and more directly in ICS operations & planning
<p>Stakeholder Coordination</p> <ul style="list-style-type: none"> - Early/frequent communication with area utilities to coordinate operational changes and public messaging - Input from Lane County and public safety to assist with risk assessment/PSPS decision-making 	<p>Public Education Opportunities</p> <ul style="list-style-type: none"> - Consider earlier than 24-hour notice that a PSPS <i>may be</i> called, and include internal employees - Build out PSPS-specific messages such as generator safety when fire danger is high, keeping refrigerated foods/medicine cold, and why the restoration process takes longer than turning power off.
<p>Multi-channel Communication for PSPS Event</p> <ul style="list-style-type: none"> - GIS map developed/posted to website - 24-hour public notice via traditional and social media - Automated phone messages and email alerts to impacted customers (when contact info available) - E-mail notifications to critical infrastructure partners 	<p>Situational Awareness and Response</p> <ul style="list-style-type: none"> - Improve operational decision-making through real-time localized weather data and updated forecasting to initiate patrol and restoration - Refine operational procedures to enable decision-makers to respond to changing weather conditions as appropriate.

What Worked Well	Ideas for Improvement
<p>Restoration Process</p> <ul style="list-style-type: none"> - After de-energization, staff quickly transitioned to building switching orders and lining up resources for restoration process. - Service restoration plans were executed safely and methodically. - On-going public communication during restoration process - Process documentation/planning packets from this event will reduce restoration time and allow EWEB to be more nimble re: when to re-energize circuits. 	<p>Improve Impacted Customer Data</p> <ul style="list-style-type: none"> - Map out critical infrastructure within HRFZ by circuit - Gather updated contact information for customers in HRFZs, with focused outreach campaign to those at most risk during prolonged power outages.