

EWEB Powder Activated Carbon (PAC) Improvement

June 2, 2022

Eugene Water & Electric Board





Multiple Barrier Approach to Safe Drinking Water

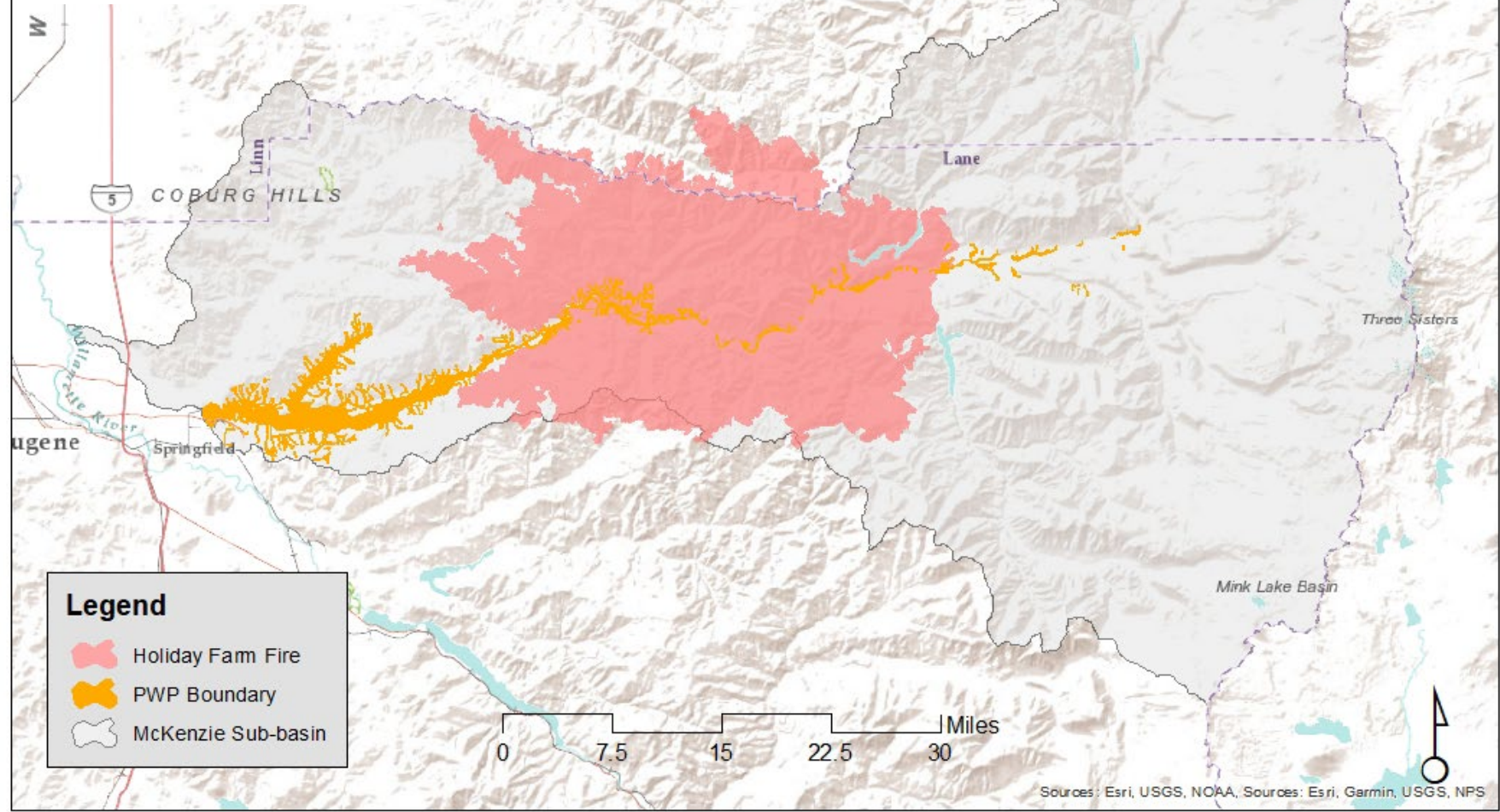
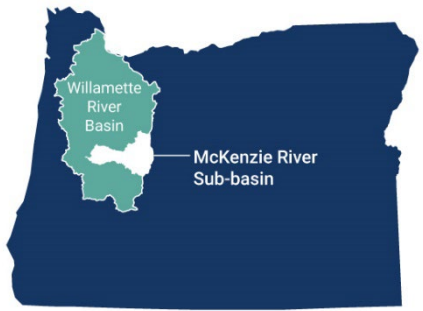


- Source Water Protection
- Robust Water Treatment
- Secure Water Supply Network
- Water Quality Monitoring
- Emergency Preparedness



2020 Holiday Farm Fire

Eugene's only water source is the
McKenzie River

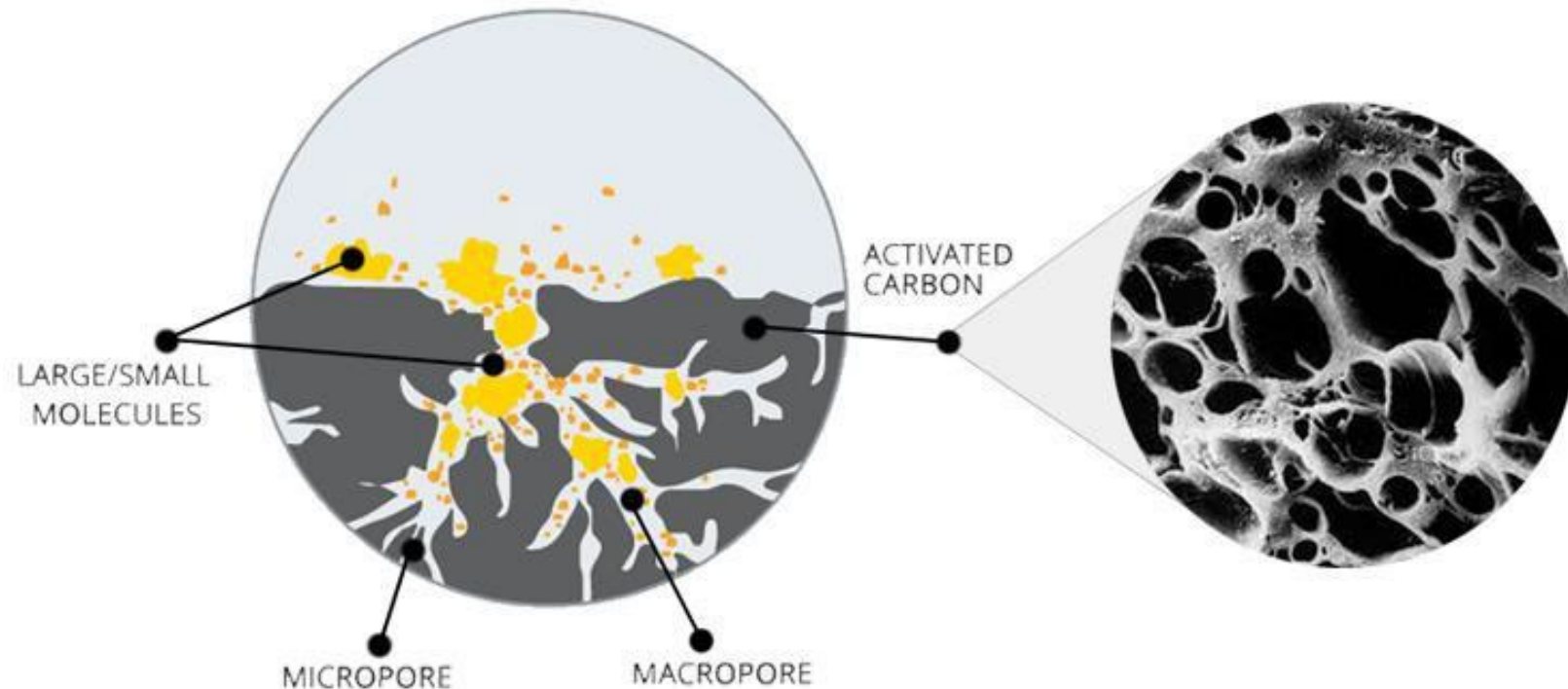


Recent EWEB Water Reliability Investments

- \$30M in upgrades to existing Hayden Bridge Treatment Plant.
- \$4M for a new in-house water quality monitoring lab certified for cyanotoxins (one of only a few in-state) – EWEB can test for other utilities or DEQ.
- \$4M for onsite production of sodium hypochlorite disinfectant that is safer than chlorine gas and less vulnerable to supply disruptions and can be shared with neighboring utilities.
- \$2M for Emergency Water Stations distributed around Eugene.
- \$12.3M EWEB Board approved Watershed Recovery surcharge (\$3/meter) that will sunset after 60 months
- PENDING: Powder Activated Carbon (PAC) Improvement Project
\$750K (\$375K 50% state match in February)

PAC Process Overview

- Powder Activated Carbon (PAC) treats water by adsorbing constituents into micro-pores. The PAC is then removed during the filtration process in the treatment facility.



PAC Process Constituents

- Constituents of particular interest in the McKenzie watershed that PAC can mitigate:
 - Dissolved Organic Matter (DOM) that creates taste and odor in water. (Fire and Flood events)
 - Algae Toxins- expected to increase since the Holiday Farm Fire and are impacted by climate change.
 - Hydrocarbons and chemicals that are moved through the Highway 126 corridor by truck.



Current and Future PAC Process

- Currently PAC is moved by hand in 50 lb. bags by employees. At low feed rates of 3-5 hundred pounds a day this is acceptable.
- The Holiday Farm Fire and recent increases in the occurrence of Hazardous Algae Blooms (HABs) indicate it may be necessary to feed 1-4 thousand lbs. of PAC.
- The system upgrade is for a conveyance system to support high feed rates.



Future Steps

EWEB relies on a sole source of water – the McKenzie River. Recent events have underscored the need to diversify water supply and mitigate risk from:

- Wildfires
- Earthquakes
- Harmful Algae Blooms
- Chemical Spills

Future Investments

- 2nd Water Treatment Plant on Willamette: \$90,000,000
- New or upgraded water transmission lines and reservoirs.



Thank You! Questions?

