



*Pardee Dam*

# EBMUD Wildfire Preparedness and Response

Board of Directors

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# EBMUD Fire Preparedness

## East Bay Vegetation Management – about 29,000 acres

- Routine Maintenance
  - 200-300 acres with mechanical treatments
  - Grading and clearing over 150 miles of fire roads
  - 10,000 acres grazing
- Local Projects and Partnerships
  - Grizzly Peak Strategic Fuel Break
  - San Pablo Pines removal
  - Tunnel East Bay Hills Fuel Break
  - Prescribed fire with local fire agencies



*Fire break along Fish Ranch Road*

# EBMUD Fire Preparedness

## Mokelumne Vegetation Management

- 370,000 acres above Pardee Reservoir
- Majority of acreage within El Dorado and Stanislaus National Forest
- Upper Mokelumne River Watershed Authority partners with US Forest Service under Master Stewardship Agreement
- Planned restoration of 225,000 acres
- 26,000 acres actively under restoration (Phase 1)

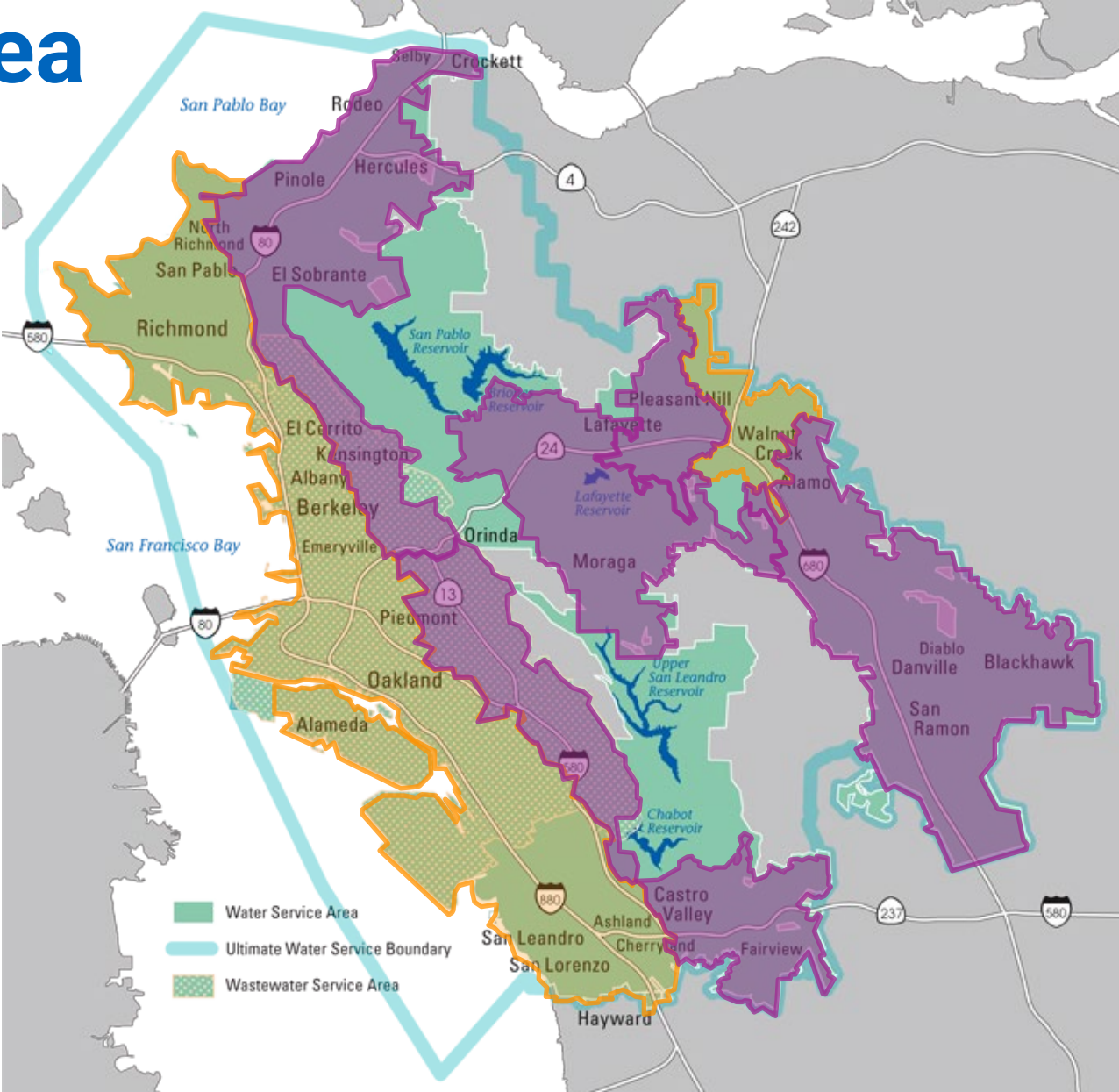


*Upper Mokelumne Watershed*

# EBMUD Service Area

Served without pumping (gravity)

Served with pumping



# EBMUD Fire Preparedness

## Reservoir Operations

- 9 million gallons returned to service after winter
- Storage is reduced in winter to maintain water quality when demand is lower
  - Prevents loss of disinfectant residual and other water quality problems
- Red flag operations
  - All available storage filled in high-risk areas
  - On-peak pumping is used when necessary



*Sherwick Reservoir (Oakland)*

# Hydrant Maintenance and Testing

- Hydrants are simple and reliable
- ~31,000 public fire hydrants in the service area
- Operate, inspect, and perform routine maintenance on ~5% annually, increasing to 10%
- Repair and replace as needed
- Fire departments notified when hydrant is taken out of service or found inaccessible

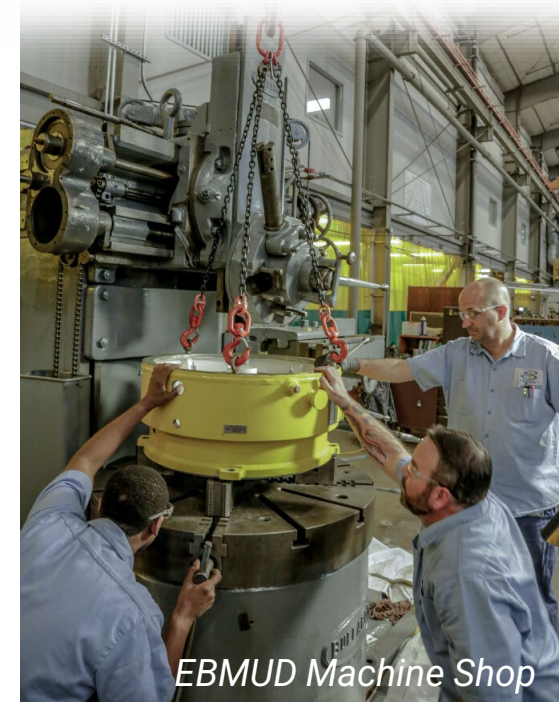


*District hydrants,  
downtown Oakland  
and Oakland Hills*

# EBMUD Fire Preparedness

## Capital Investments and Maintenance

- Pumps, valves and pipelines meet fire flow specifications
- Distribution system built with redundancy
- Building materials comply with fire code – reduces impact from wildfires
- Added to portable generator and pump fleet
- Maintain pumps and generators to ensure readiness of water system



# EBMUD Fire Preparedness

## 1991 East Bay Hills Fire Lessons Learned

- Operational – Fill storage on Red Flag days
- Equipment – Standardize hydrants, disperse emergency generators
- Infrastructure – Pipeline upgrades, latest building codes, stationary generators
- Coordination – Conduct joint meetings with fire agencies and cities/counties



*Amito Reservoir (Oakland, 1991)*

# EBMUD Fire Preparedness

## Coordination

- Fire Agency Forum
  - Operational collaboration with fire agencies within EBMUD service area
- Hills Emergency Forum
  - Assess, prevent/mitigate, prepare for, and respond to fires in the East Bay hills
- East Bay Wildfire Coalition (EBWC)
  - Technical advisor for EBWC



*Fire Agency Forum (2024), Administration Building*

# EBMUD Emergency Response

- EBMUD 24/7 Control Centers
  - Increase system pressure for firefighting
  - Manage reservoir water levels
- Portable generators and pumps ready for deployment
- Local water storage to support aerial firefighting



*Oakland Control Center, Administration Building*

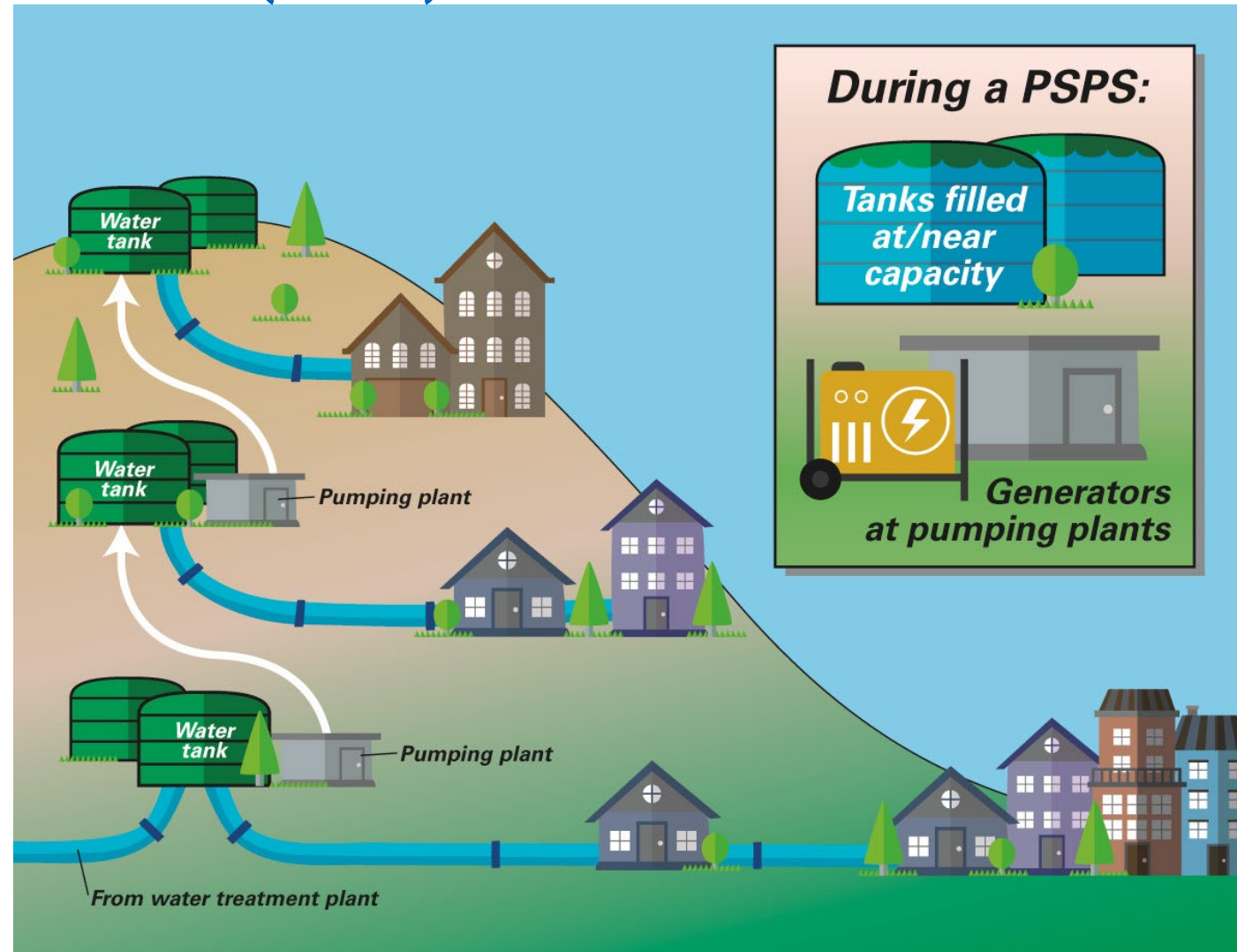


*CALFIRE Water Drop@OaklandFireCA on X*

# EBMUD Fire Preparedness

## PG&E Public Safety Power Shutoffs (PSPS)

- Usually coincident with red flag days
- Pre-fill reservoirs
- Proactively deploy portable generators and pumps at the most impacted pumping plants
- Stationary generators are permanently installed at major facilities

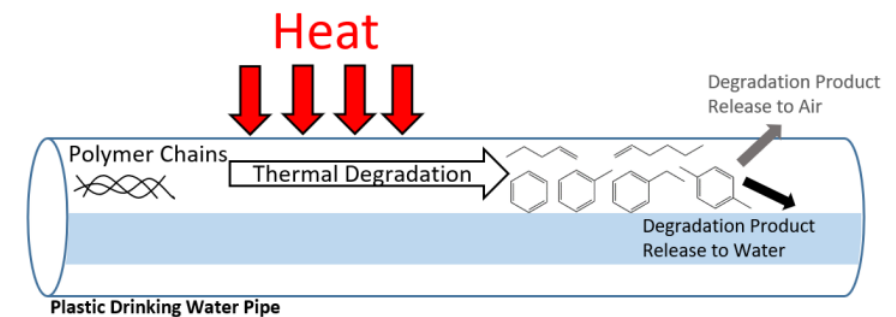


# Mutual Aid

- District part of a statewide mutual assistance network and connected with California Governor's Office of Emergency Services
- Always ready to mobilize personnel, equipment, and expertise needed for emergency response and recovery
- History of assistance: Napa Earthquake (2014), Camp Fire (2018), communicated readiness to Southern California in January 2025

# Post-Wildfire Water Quality Research

- Water Research Foundation publication: *Post-Wildfire Distribution System Water Quality Impacts and Potential Responses*
- District co-sponsored research and gained experience from Camp Fire (2018) and other fires
- Verified sources of organic/inorganic contamination during wildfire when pipelines de-pressurize
- Developed sampling and flushing guidelines to hasten recovery
- May be used to inform future building code/building materials in wildfire zones



# Research findings

- Analysis of water quality and operational data generated in several large wildfire events
  - Characterize the types of contaminants to be expected
- Exhumed metallic and plastic materials from different water agencies were subjected to varying amounts of heat in laboratory
- Thermally damaged and undamaged components were tested for leaching of volatile and synthetic organic compounds
- Copper materials did not leach volatile and synthetic organic compounds
- Some leaching occurred at temperatures below burning (pyrolysis)
  - Indicates need for testing of some components even when they appear undamaged
- Decontamination procedures were evaluated for plastic pipes

# Public Notifications in Southern California



State Water  
Resources  
Control Board

- Impacted municipal systems in Southern California not under same Division of Drinking Water regulatory region - some inconsistency resulted
- Do Not Drink notifications issued in Altadena area
- Do Not Use and Do Not Drink issued in Pacific Palisades
- Without definitive data, public health notices will be conservative
- Initially benzene and other volatile organic compounds found, flushing was effective
- Notices lifted after two months in most areas, typically incrementally (neighborhood by neighborhood) as sampling verified water quality
- Assembly Bill 541 (2023) requires water systems to test for benzene testing after wildfire, this was incorporated into sampling plans

# EBMUD Fire Preparedness Outreach

## Stakeholder Meetings

- Contra Costa County Fire Protection District
- Contra Costa County Fire Chiefs Meeting
- Contra Costa County Supervisor John Gioia's Office
- East Bay Wildfire Coalition
- Oakland Fire Department
- City of Lafayette Emergency Preparedness Commission
- San Ramon Valley Fire Protection District
- State Assemblymember Buffy Wicks' Office
- State Senator Tim Grayson's Office
- Town of Moraga
- Water Wednesday – Fire Preparedness
- East Bay Leadership Council

# Next Steps

- Staff will meet with communities as requested and will prepare for upcoming dry season
- Outreach includes attendance at community wildfire and safety fairs to talk to the public about wildfire safety and watershed protection
- Staff are also monitoring potential legislation or changes in regulations that could impact the water system, including changes to applicable building code or fire code



# Questions?

