

# **Public Safety Power Shutoff**

Board of Directors

June 25, 2019

# Agenda



- PSPS Description
- Impact to District facilities
- District preparation for a PPS
- Next steps

# Background



- CPUC De-energization Resolution in 2018
  - Rules for de-energization
  - Customer notification and outreach plans
- District is a party to the rulemaking process
  - Water and wastewater utilities have elevated status as “Public Safety Partners”

# PSPS Triggers



**A Red Flag Warning declared** by the National Weather Service



**Low humidity levels,** generally 20% and below



**Forecasted sustained winds generally above 25 mph and wind gusts in excess of approximately 45 mph,** depending on **location and site-specific conditions** such as temperature, terrain and local climate



**Condition of dry fuel** on the ground and live vegetation (moisture content)



**On-the-ground, real-time observations** from PG&E's Wildfire Safety Operations Center and field observations from PG&E crews

# Power Restoration



- PSPS event could last several days



## WEATHER ALL CLEAR

After the extreme weather has passed and it's safe to do so, our crews begin patrols and inspections.



## PATROL & INSPECT

Crews visually inspect every mile of the lines to look for potential weather-related damage to the lines, poles and towers. This is done by vehicle, foot and air.



## ISOLATE & REPAIR DAMAGE

Where damage is found, crews work to isolate the area so other parts of the system can be restored. Crews work safely and as quickly as possible to make repairs.



## RESTORE POWER

Once it is safe to energize, a call is made to the PG&E Control Center to complete the energization process. Power is then restored to customers.



## NOTIFY CUSTOMERS

Customers are notified that power has been restored.

# Expansion of PG&E's PSPS

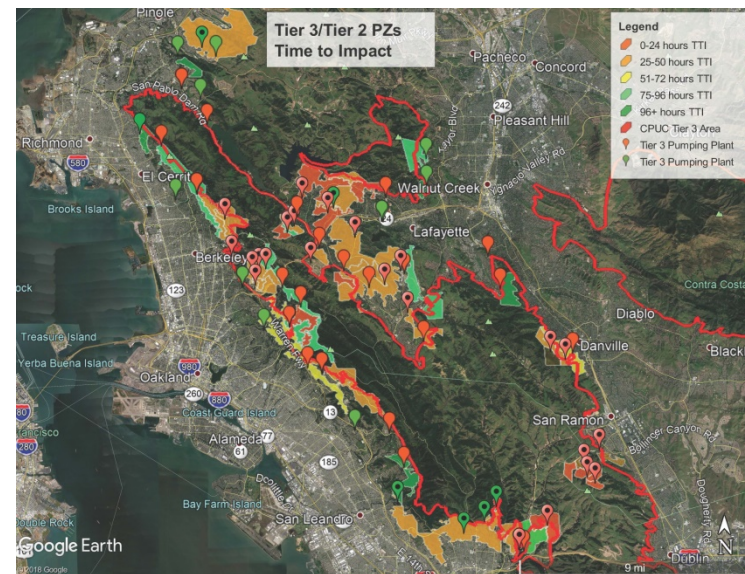


2018	2019
7,100 <u>distribution</u> circuit miles (Tier 3 HFTD areas)	25,200 <u>distribution</u> circuit miles (Tier 2 and Tier 3 HFTD areas)
370 <u>transmission</u> circuit miles (70 kV and below)	5,500 <u>transmission</u> circuit miles (500 kV and below)
570,000 customers potentially impacted by PSPS events	5.4 million customers potentially impacted by PSPS events

# Impact to District Facilities



- 59 PG&E circuits in service area
- Over 200 District facilities in the East Bay
- 24 upcountry facilities
- Any facility could be impacted if there is a transmission line outage
- Evaluated the impact of a multi-day outage



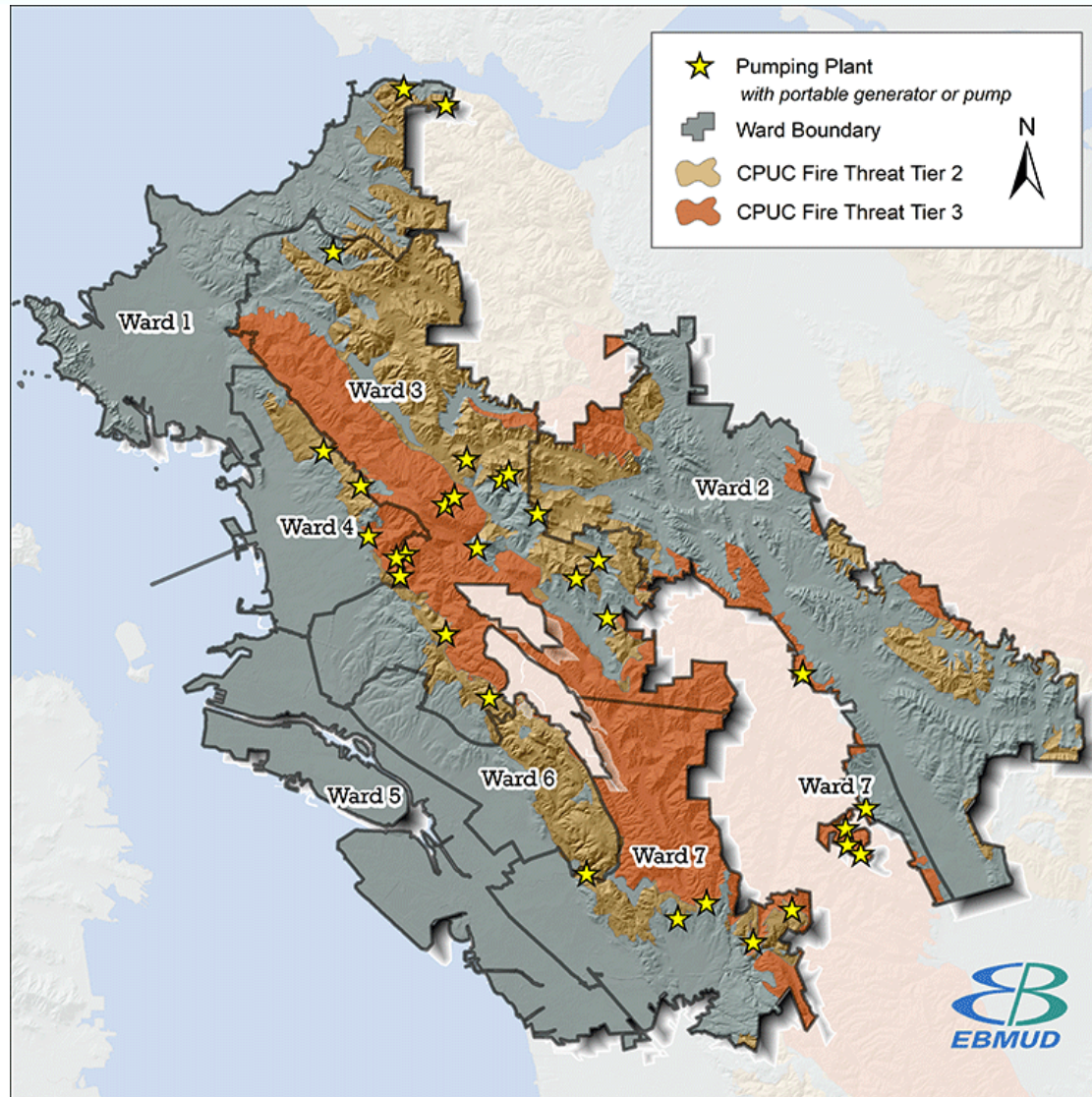
# Backup Power at District Facilities



- Sufficient backup power at
  - Water treatment plants
  - Some pumping plants
  - Administration building and yards
  - Wastewater facilities
- Recycled water irrigation service could be interrupted
- District has 33 portable pumps and generators
- Additional backup generators needed



# Pre-deploying Portable Equipment



# Preparing for a PSPS



- Maximize distribution reservoir storage
- Participate in community meetings
- Conducted tabletop exercise
- Develop public messaging
  - Customer Pipeline, social media, EBMUD webpage, fact sheets
  - Encourage customers to minimize discretionary water use
- Reviewed public notification plan



## Preparations for Public Safety Power Shutoff (PSPS)

Emergency equipment staging begins this month



## Preparations for Public Safety Power Shutoff (PSPS) Begin June, 2019

**Project Information:** EBMUD will begin staging emergency equipment at designated critical facilities this month. The emergency generators and portable pumps, which will vary in size 40kW to 500kW, will be placed at pumping plants in areas most at risk to wildfires and most likely to be affected by a power outage. The emergency equipment will remain in place from August 1 through November 30. EBMUD will also reduce vegetation around all facilities to comply with the current fire codes and create a fire-safe landscape.

**What to expect:** Facilities near the designated pumping plants are likely to see the emergency equipment in place beginning this month. Though residents may hear the generators being tested, they will not be used during a PSPS event. Also, as a result of the increased vegetation management, our facilities will be more visible to the public.

**Schedule:** Vegetation reduction has already begun and is on-going. The emergency equipment staging will begin in late June. All generators and portable pumps will be in place by August 1, 2019. The installation will take approximately two to three weeks to complete. Typical work hours are Monday through Thursday from 8:00 a.m. to 3:30 p.m.

**Questions:** ebmud.com/PSPS

Every day, EBMUD provides high-quality drinking water for 1.4 million customers in Alameda and Contra Costa counties. We maintain our pipelines and facilities to ensure reliable delivery around the clock.

Follow us @ebmud



Thank you for your patience while we prepare for a safe fire season

More Favorites-Hill, Community Affairs, 510-287-0135 or maria.suarez@ebmud.com

## How EBMUD is Preparing for Public Safety Power Shutoffs

### Customers Should Also Be Ready for Power Outages During High Fire Danger Periods

Over the dry wildfire season (June through November), PG&E may turn off electricity in designated areas when extreme fire danger conditions are forecasted (e.g., Red Flag Warnings, low humidity, high winds and dry conditions). The specific areas and number of affected customers will depend on weather conditions and which circuits PG&E turns off for public safety. These precautions are called Public Safety Power Shutoffs (PSPS).

#### What Does This Mean for Your Water Service?

EBMUD has an action plan should we lose power. While PSPS is granted toward high fire-threat areas, it could affect water facilities that rely on electric lines passing through a high fire-threat area. The length of time without power could be anywhere from two to five days. A PSPS event could force EBMUD to switch to backup generators to power pumping plants, water treatment plants and other key facilities to keep water flowing, maintain storage and line flow, and keep water distribution lines pressurized.

#### What is EBMUD Doing?

- We are working with PG&E to ensure we receive as much advance notice as possible so we can prepare and initiate our response.

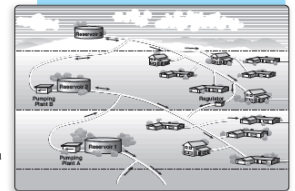
- When a Red Flag Warning is issued, we fill and maintain water tanks (over capacity).

- EBMUD is maintaining portable generators and pumps at designated critical facilities to keep our pumping plants running, and we've made arrangements to keep these generators fueled during peak

- demand periods. We have some additional portable generators and pumps to deploy as needed.

- We are managing vegetation around our facilities to reduce fire risk.

- EBMUD is working with partners on controlled burns in the Central Moraga Hills to create fuel breaks that will make room for firefighters to contain fires and slow the spread of fire.



EBMUD has more than 100 power centers, which require power to pump water to higher elevations

# Next Steps



- Continue community outreach
- Continue coordination with PG&E and participation in CPUC rulemaking process
- Rental agreement for Board consideration
- If agreement is authorized, begin deploying portable equipment in mid-July

# Questions



# **Bay-Delta Water Quality Control Plan Update Voluntary Agreement**

Board of Directors  
June 25, 2019

# Overview



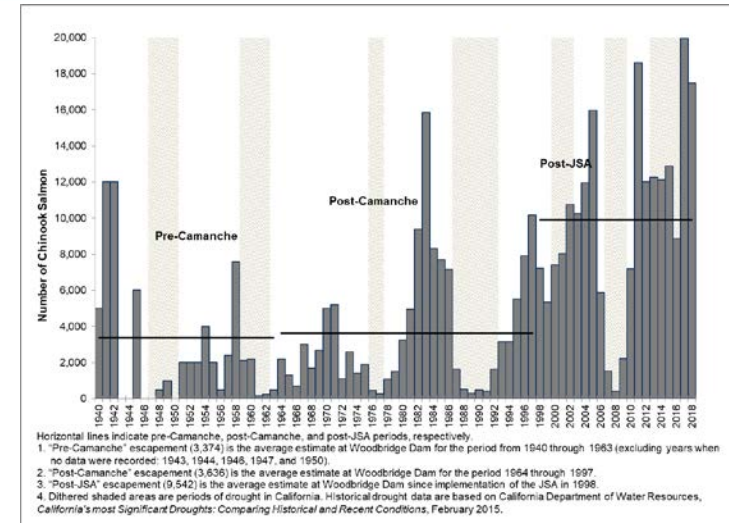
- Fisheries Highlights
- Bay Delta WQCP Update
- Unimpaired Flow Approach
- Voluntary Agreements
- Statewide Process



# Fisheries Highlights

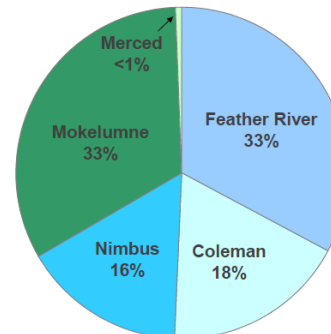


- Post-JSA annual return average 9,920
- Achieved 97% of CVPIA Doubling Goal
- Significant contribution to ocean fisheries
- Approximately \$70 million spent for JSA implementation over 20 years

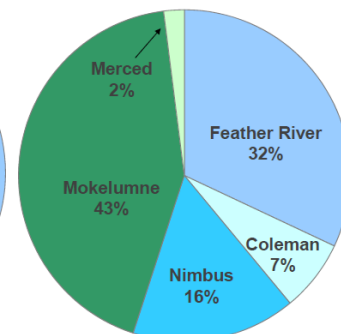


## Hatchery Contribution to 2018 CA Ocean Fisheries

Recreational  
Central Valley fall Chinook



Commercial  
Central Valley fall Chinook



# Water Quality Control Plan Update



- State Board began process in March 2009
  - Establish water quality control measures and flow requirements to provide reasonable protection of beneficial uses
- Phase I - San Joaquin Objectives (Adopted 12/2018)
- Phase II - Sacramento Basin Objectives
  - Mokelumne River is part of Phase II
- Phase III - Implementation through Proceeding
- Phase IV - Flow Objectives for other Tributaries

# Water Quality Control Plan Update



- SWRCB solution centers around an unimpaired flow standard to provide inflow to the Delta
- Framework, allows for Voluntary Agreements (VA) as a mechanism to meet desired outcomes
- Mokelumne Stakeholders have been negotiating with CDFW and CNRA on a Proposed VA that includes both flow and non-flow measures
- VAs are 15 year agreements

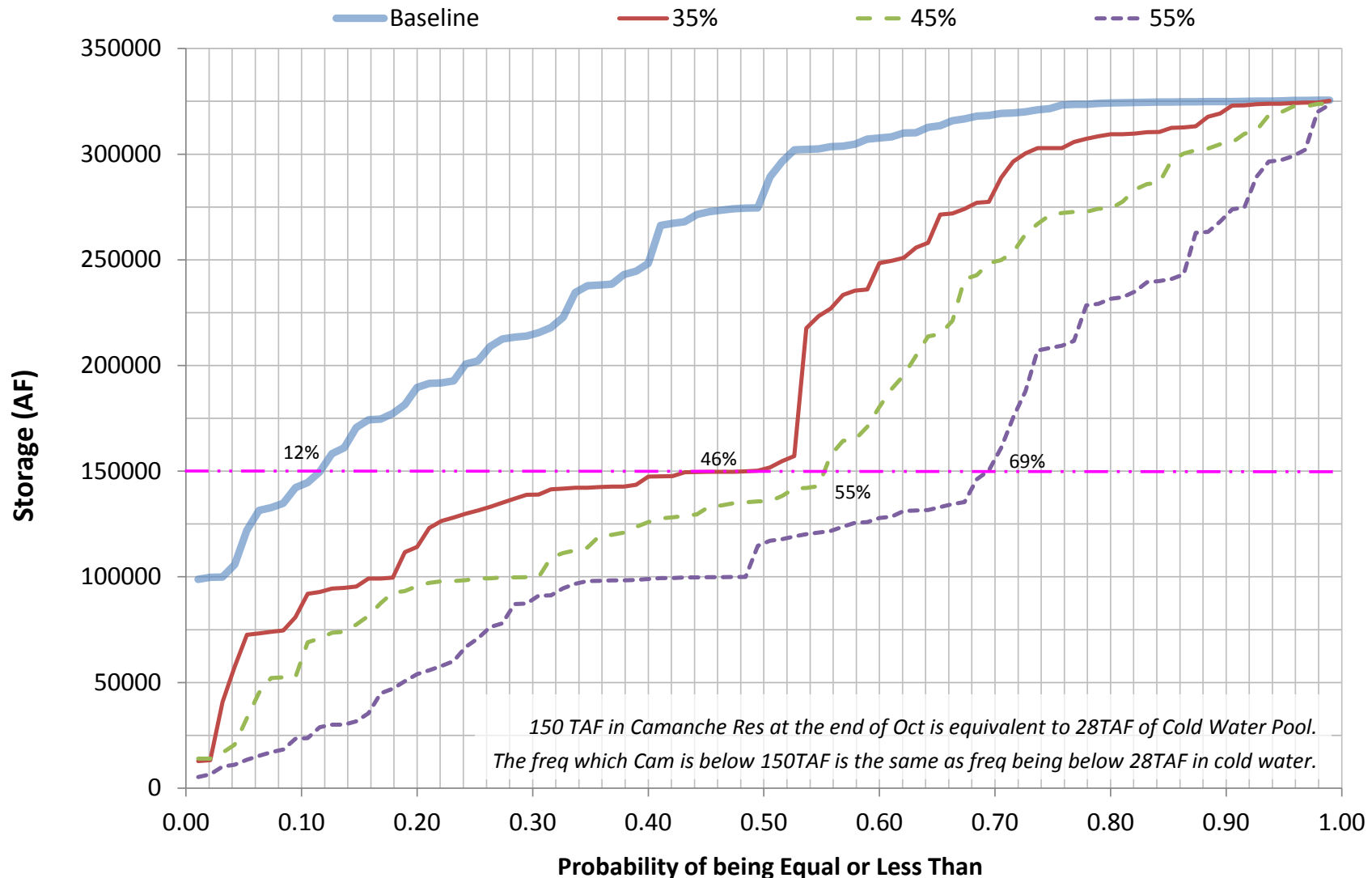
# Unimpaired Flow Standard



SWRCB Unimpaired Flow Alternative results in significant impacts to Mokelumne fishery, operations and water supply reliability

- Significant reductions in total system carryover storage
- Increased risk to cold water pool
- Doubles number of years of EBMUD customer rationing >15%
- Reductions in deliveries to all users on the river
- Increases EBMUD reliance on CVP supplies (18 years to 39 years)

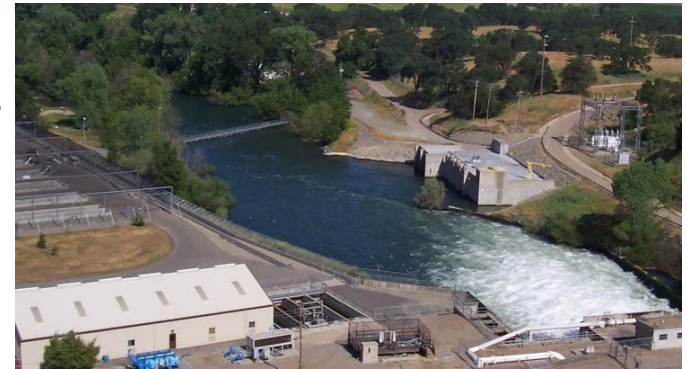
# Camanche Res End-of-October Storage: Example of Temperature Risk



# Mokelumne VA Proposal



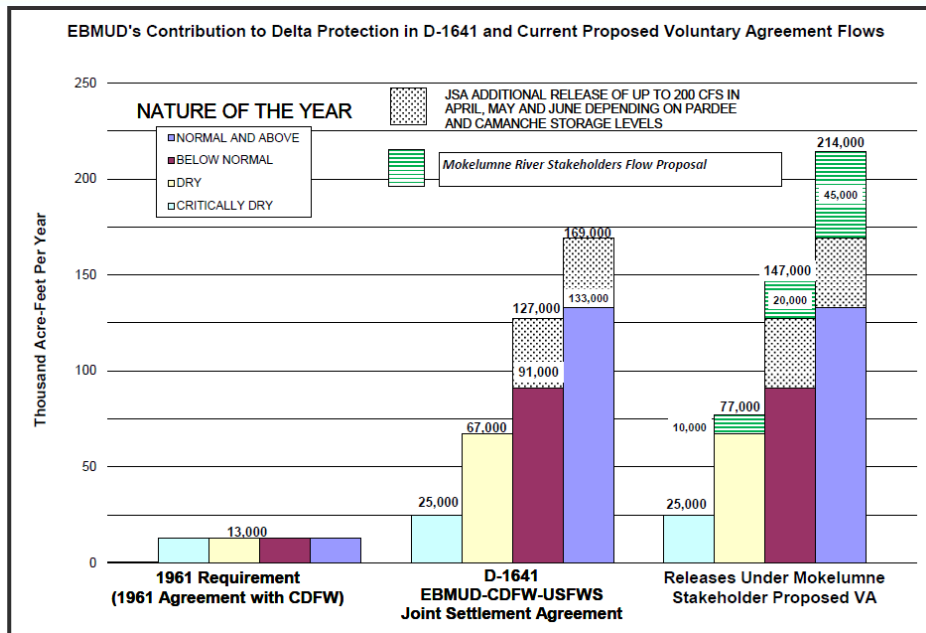
- Includes flow & non-flow measures
- Approx. \$60 million over 15 years
- Measures to improve juvenile habitat availability
- Builds upon gains achieved in JSA
- Protects water quality and supply for customers and environment



# Mokelumne VA Flow Measures



- Additional amounts above JSA
- Spring releases to provide water for floodplain
- Fall releases for attraction pulses
- Key off ramps to protect water supply and water quality (temperatures)

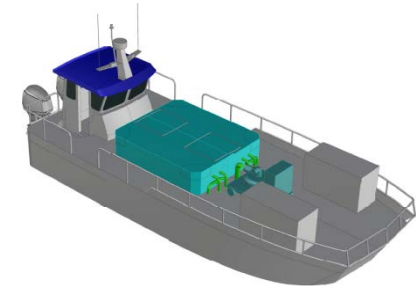


Water Year Type	Additional Volumes
Normal & Above (wet)	45,000 acre feet
Below Normal	20,000 acre feet
Dry	10,000 acre feet
Critically Dry	NA

# Mokelumne VA Non-Flow Measures



- Juvenile Habitat
- Migration Habitat and Hatchery
- Gravel Enhancement
- Research and Monitoring Program



# State Valley-wide Proposal

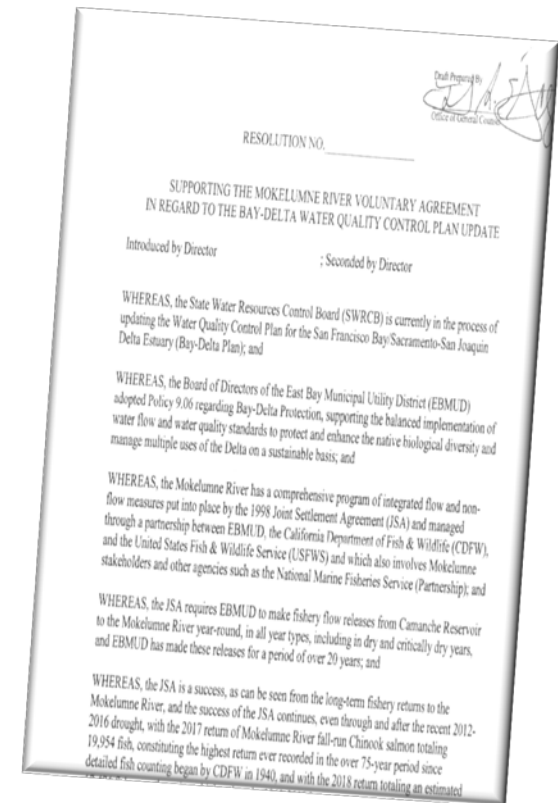


- Participation in Valley-Wide VA
  - Nearly 50 entities working on agreement including EBMUD
  - Multiple work teams including Governance & Science, Policy, Plenary and Legal
- Environmental group outreach
- Adequacy of VA proposal versus SWRCB approach

# Bay-Delta Voluntary Agreement Resolution



- Supports participation in state voluntary agreement
- Highlights success of 1998 Joint Settlement Agreement on Mokelumne River
- Upholds environmental stewardship of Mokelumne River and Bay-Delta
- Advocates for assurances and equity in flow and non-flow contributions



# Water Outage Map

Board of Directors

June 25, 2019

# Current Website Outage Information



- Posted in plain text, no map

When repairs are made in your neighborhood, you may want to flush your home faucets. Once water service is restored, turn on your front hose bib – the outdoor faucet at the front of the house – until the water runs clear. Also run cold water from the faucets inside your home for 1–3 minutes until clear. [Read more about what to do when EBMUD crews are in your neighborhood.](#)

## CUSTOMER ALERTS

### OAKLAND - WILLIAM STREET

#### Service issues

Due to a service lateral replacement, water service is disrupted in Oakland for customers on William Street.

#### Traffic impact(s)

There are no traffic impacts.

#### Repair status

The estimated time for completion of repairs is 4:30 PM on Wednesday, August 29th.

Last updated: Wed, Aug 29, 2018 3:12 PM

### WALNUT CREEK - WALKER AVENUE

#### Service issues

Due to an emergency repair, water service is disrupted in Walnut Creek on portions of: Walker Avenue, Caminar Way, Eckley Lane, El Camino Corto, Fraser Drive, Nob Hill Drive, Oakdene Court, Shady Glen Road, View Lane and Walnut Boulevard.

#### Repair status

The estimated time for completion of repairs is 4:00 pm.

Last updated: Wed, Aug 29, 2018 12:12 PM

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# New Water Outage Map



- Map shows locations of unplanned maintenance that results in a water outage
- Each outage includes
  - ✓ Impacted streets
  - ✓ Number of customers affected
  - ✓ Traffic impacts, if any
  - ✓ Estimated time when water service will be restored
- Map goes live on Wednesday, June 26<sup>th</sup>
- Planned outages are communicated separately

# Water Outage Map Example




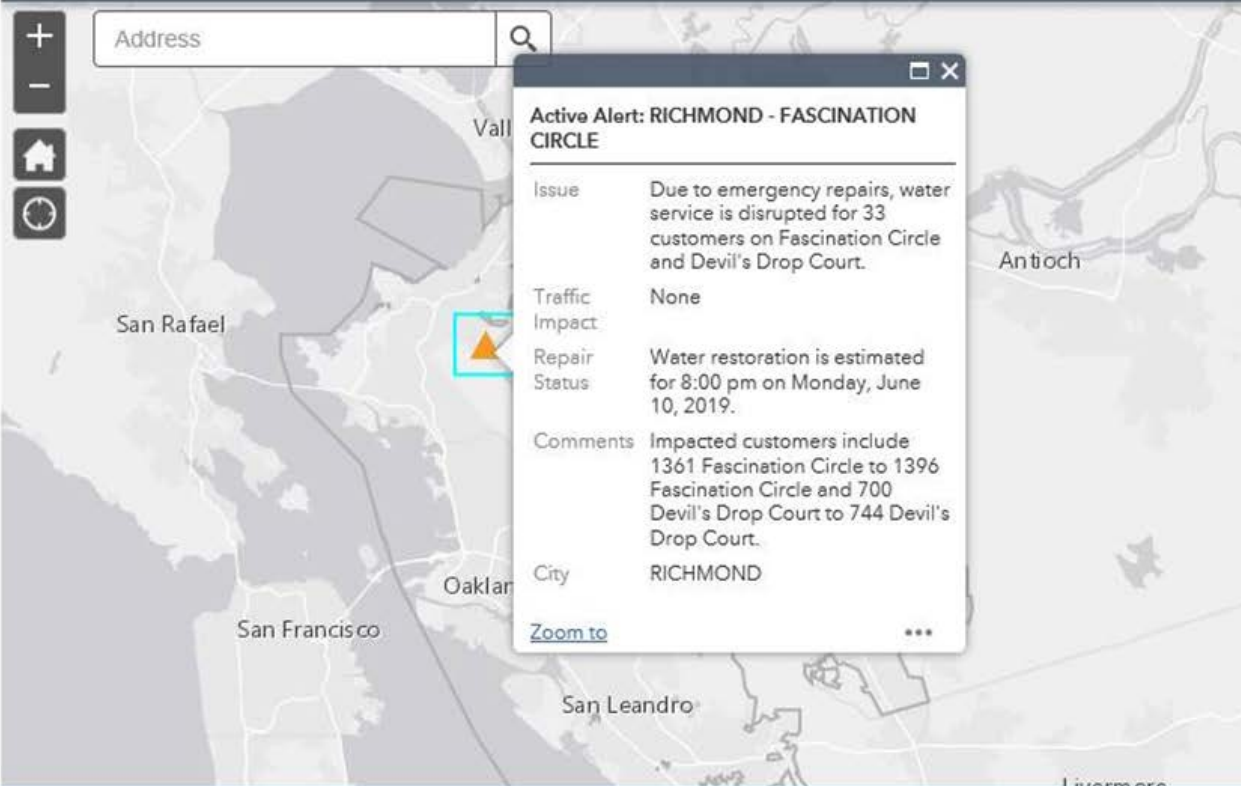
faucet at the front of the house – until the water runs clear. Also run cold water from the faucets inside your home for 1-3 minutes until clear. Read about what to do when EBMUD crews are in your neighborhood.

EBMUD

**LEGEND:** ▲ Active Public Alerts |  EBMUD boundary


**Active Public Alerts**

Address  



**Active Alert: RICHMOND - FASCINATION CIRCLE**

Issue	Due to emergency repairs, water service is disrupted for 33 customers on Fascination Circle and Devil's Drop Court.
Traffic Impact	None
Repair Status	Water restoration is estimated for 8:00 pm on Monday, June 10, 2019.
Comments	Impacted customers include 1361 Fascination Circle to 1396 Fascination Circle and 700 Devil's Drop Court to 744 Devil's Drop Court.
City	RICHMOND

[Zoom to](#) 



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# Demonstration



- Production Data
- Test Data

# Questions

