

# **Public Safety Power Shutoff 2019 Review**

Board of Directors  
December 10, 2019

# Agenda



- PSPS event overview
- Costs and impacts
- Lessons learned
- Next steps

# 2019 District PSPS Events



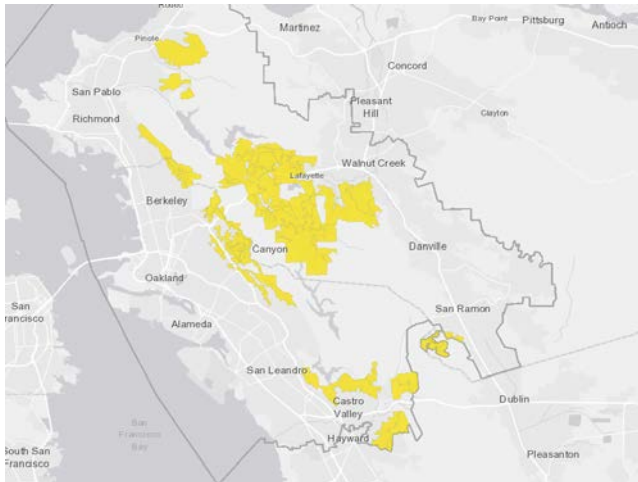
Event	Total	Water Treatment Plants	Distribution Pumping Plants	Distribution Reservoirs	Upcountry
Oct 9	136	2	47	37	1
Oct 26	216	4	58	54	27
Oct 29	23	0	7	8	1
Nov 20	90	2	30	28	1

Canceled

# Scope of PSPS Impact

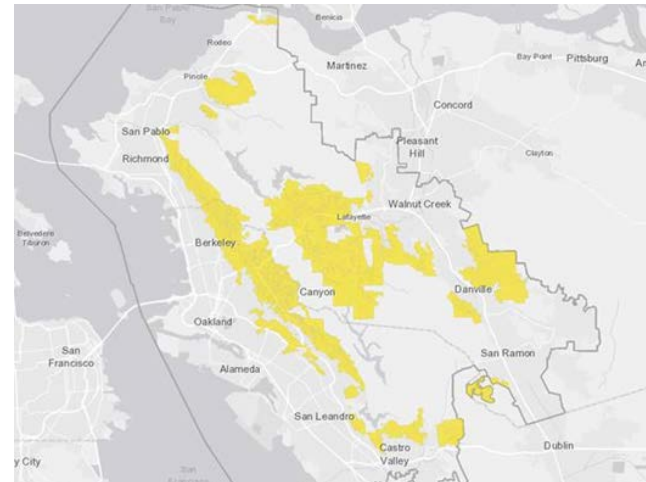


October 9



- Pressure Zones Affected
  - 43
- Customers Affected
  - ~97,000

October 26



- Pressure Zones Affected
  - 73
- Customers Affected
  - ~236,000

# PSPS Communications



- New media
- Notifications
  - Elected officials
  - Social media
  - Emails
  - Nextdoor



Claudine Wong @ClaudineKTVU

Oct 9

Should we worry about water service during the planned power outage? East Bay Mud says you should conserve and can look up your address to see possible impacts [ebmud.com/customers/aler...](http://ebmud.com/customers/aler...) #Ktvu #plannedpowershutoff

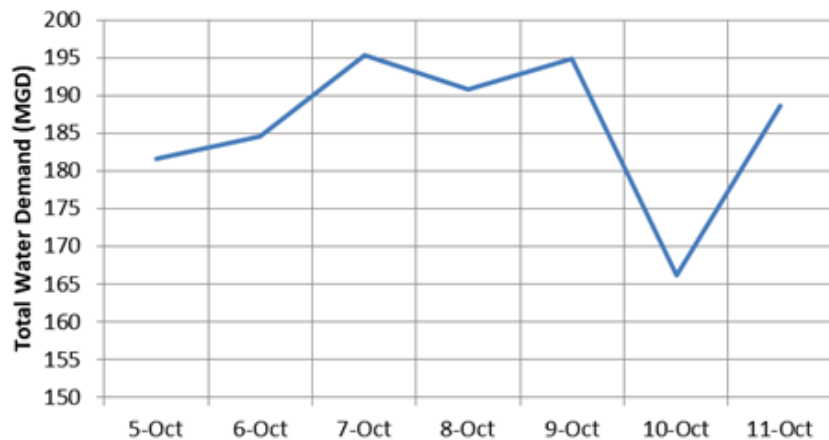


	October 9	October 26
Media advisories	2	1
Press releases	1	0
Emails	28,378	38,586
Nextdoor	58,893	158,782

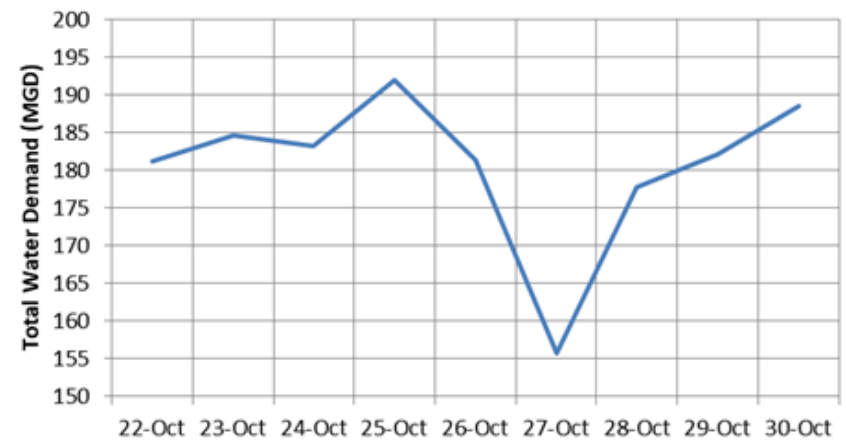
# Water Consumption Customer Response



**Total Water Demand - October 10 PSPS**



**Total Water Demand - October 27-29 PSPS**



	Prior 5-Day Avg.	Oct 10	% Difference
PSPS Pressure Zones	22 MGD	15 MGD	32%
Non-PSPS Pressure Zones	185 MGD	169 MGD	9%

	Prior 5-Day Avg.	Oct 27	% Difference
PSPS Pressure Zones	41 MGD	25 MGD	40%
Non-PSPS Pressure Zones	158 MGD	149 MGD	6%

# PSPS Costs and Labor Hours



Item	Cost
Generator Rental	\$409,000
Labor: PSPS Preparation (e.g., RFP, exercises, field work)	\$111,000
Labor: October-November PSPS Response	\$683,000
Fuel	\$27,000
Other (e.g., equipment)	\$38,000
East Bay Recreation Area: Lost Revenue	\$19,000
Upcountry Recreation Area: Lost Revenue and Product	\$4,000
Lost Water Revenue	\$173,000
<b>TOTAL</b>	<b>\$1,464,000</b>

## Labor hours

- Regular: 7,154 hours
- Overtime: 965 hours



# PSPS Recreation Area Impacts



Location	Visitors Denied Access	Visitors Evacuated
San Pablo Recreation Area	1,440	
Lafayette Recreation Area	2,731	
Upcountry	20	283





# PSPS Opportunity Costs



- Delayed work at
  - Water treatment plants
  - Pumping plants
  - Reservoirs and regulators
- Increased work order backlog
  - ~80 work orders
  - ~\$50,000 in overtime to date

# How Did We Do?

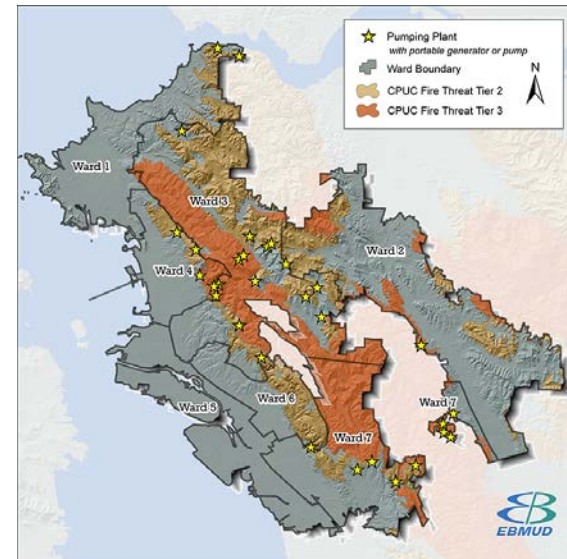


- No customer impacts
- Positive customer response
- Employees stayed safe
- Gained EOT experience



# Keys to Success

- Preparation
- Coordination
- Pre-deploying equipment



# Keys to Success



- Prepared messages in advance
  - Employees, elected officials, customers
  - Social media
  - News media
- Website with map
- Community meetings



Are you ready for potential power shutoffs by PG&E?  
EBMUD has prepared by topping off reservoirs and ensuring our backup equipment is ready to go to keep water flowing. Learn more on how #PSPS may affect water operations. <http://ebmud.com/psps>



**Power shutoff impacts to water operations**

EBMUD.COM  
East Bay Municipal Utility  
Shutoff (PSPS)

Home / Customers / Alerts and outages / Power shutoff impacts to water operations

Storage Closes/Leakable updates

Below is important information about power shutoff impacts to water operations during the October 2019 Public Safety Power Shutoff event in the East Bay.

You may be asked to conserve water so EBMUD can maintain water in local reservoir tanks. If you are located within a highlighted area, EBMUD asks that you be prepared to limit water use indoors and turn off outdoor irrigation.

## How EBMUD is Preparing for Public Safety Power Shutoffs

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

Over the long winter season (from 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 what is forecasted. PG&E turns off the public safety. These procedures 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 PG&E is geared 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 low 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 mitigate our response.  
• When a Red Flag Warning is issued, we fill and maintain water tanks near capacity.  
• EBMUD is maintaining portable generators and proper at designated central facilities to keep our pumping plants running, and we've made arrangements to keep those generators fueled during peak.

Additional details: 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 Orinda/Elgin area to reduce fuel loads that will make areas for firefighters to control fires and slow the spread of fire.



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

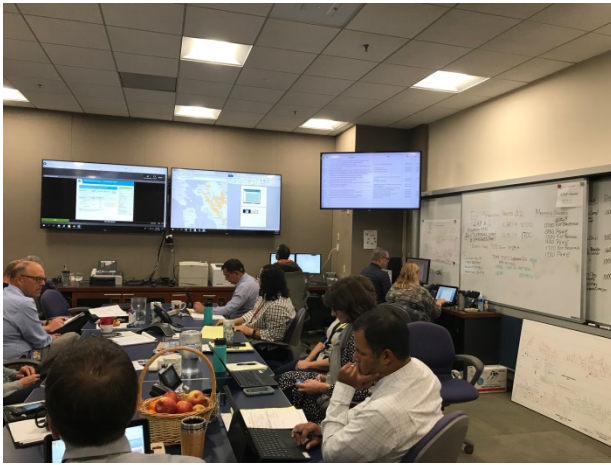




# Keys to Success



- Our employees



# Generic PSPS Timeline



48 Hrs

4 Hrs

24 - 72 Hrs

24 - 48 Hrs

24 - 48 Hrs



DE-ENERGIZATION

ADVANCED  
NOTIFICATION

PSPS

RE-ENERGIZATION

DE-Mobilization



# Next Steps



- Op-Ed from Bay Area water agencies
- Incorporate lessons learned into plan
- Meet with PG&E
- Prepare generator rental for 2020
- Participate in CPUC process

# Questions

