EBMUD: Water Supply & Wastewater Treatment in the East Bay

for Oakland Shoreline Leadership Academy
Saturday, October 23
Agenda

• Drinking Water
• Wastewater
• Sea Level Rise
• Water Quality
• How to Engage with EBMUD
## East Bay Municipal Utility District (EBMUD)

### BY THE NUMBERS

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drinking Water</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>2,000</td>
<td>Total</td>
</tr>
<tr>
<td>Million People</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Square Mile Area</td>
<td>332</td>
<td></td>
</tr>
<tr>
<td>Million Gallons</td>
<td>170</td>
<td>Per Day in 2020</td>
</tr>
<tr>
<td><strong>Wastewater</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thousand People</td>
<td>740</td>
<td></td>
</tr>
<tr>
<td>Square Mile Area</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Million Gallons</td>
<td>53</td>
<td>Per Day Avg</td>
</tr>
</tbody>
</table>

---

[Map of the East Bay Municipal Utility District (EBMUD)]
Stage 1 Drought Declaration
April 27

![Drought Stage Diagram]

<table>
<thead>
<tr>
<th>Total system storage (TAF)</th>
<th>Drought stage</th>
<th>Supplemental supply</th>
<th>Customer conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>475 +</td>
<td>Stage 0 - Normal</td>
<td>N/A</td>
<td>Wise water use</td>
</tr>
<tr>
<td>475 - 425</td>
<td>Stage 1 - Moderate</td>
<td>Yes</td>
<td>Voluntary 0 – 10 %</td>
</tr>
<tr>
<td>425 - 390</td>
<td>Stage 2 - Significant</td>
<td>Yes</td>
<td>Mandatory 10 – 15 %</td>
</tr>
<tr>
<td>390 - 325</td>
<td>Stage 3 - Severe</td>
<td>Yes</td>
<td>Mandatory 15 %</td>
</tr>
<tr>
<td>&lt; 325</td>
<td>Stage 4 - Critical</td>
<td>Yes</td>
<td>Mandatory ≥ 15 %</td>
</tr>
</tbody>
</table>
Water demand and population growth

Figure 3-1: EBMUD Water Accounts and Total Demand

- **Accounts (in thousands)**
  - Range: 300 to 600

- **Average Daily Water Demand (MGD)**
  - Range: 150 to 230

**Fiscal Year**
- 1975 to 2020
Water conservation

- Turn Off Water When Brushing Teeth...
- Install Water-Efficient Appliances
- ...or Doing Dishes
- Identify & Fix Leaks
- Take Shorter Showers & Install Low-Flow Shower Head

Home survey kit: ebmud.com/store
Recycled water

- Serving customers since the 1990s
- 9 million gallons per day
- Goal: 20 million by 2040
  - Phillips 66
  - Satellite plants
- Focus: large irrigators and industrial uses
Groundwater

• Currently no groundwater in EBMUD water portfolio

• EBMUD is a Groundwater Sustainability Agency
  • ebmud.com/sgma
  • Comments due Nov. 1

Ongoing pilots

• Bayside: East Bay/ San Lorenzo

• DREAM: San Joaquin
# Wastewater System

## BY THE NUMBERS

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,600</td>
<td>Miles of Private Sewer Laterals</td>
</tr>
<tr>
<td>1,600</td>
<td>Miles of Pipe in the Collection System</td>
</tr>
<tr>
<td>37</td>
<td>Miles of Interceptor &amp; Force Main Pipe</td>
</tr>
<tr>
<td>1</td>
<td>Wastewater Treatment Plant</td>
</tr>
<tr>
<td>3</td>
<td>Wet Weather Facilities</td>
</tr>
<tr>
<td>15</td>
<td>Pump Stations</td>
</tr>
<tr>
<td>10</td>
<td>Level Monitoring Stations</td>
</tr>
<tr>
<td>5</td>
<td>Overflow Structures</td>
</tr>
</tbody>
</table>

**EBMUD Main Wastewater Treatment Plant**
Before 1951: No Wastewater Treatment

Strawberry Creek Outfall

EBMUD Wastewater Treatment Plant
Private Sewer Lateral Program

Leaky Pipes

Storm Drain

Collection System

Leaky Pipes

Infil Gusher
Virtual Wastewater Tours

Dates: ebmud.com/events

Contact: wwtptours@ebmud.com
We are proactively planning now for sea level rise across all projects, using the Intergovernmental Panel on Climate Change’s worst assumptions for planning.

Sea level rise is a regional problem, which requires a collaborative regional solution.
Sea Level Rise: Dechlorination Facilities

12” – 2050 without Storm Surge

36” – 2100 without Storm Surge

52” – 2050 with Storm Surge

66” – 2100 with Storm Surge
Water Quality: Our Drinking Water

- We monitor daily for more than 200 compounds throughout our system.
- We removed all known lead service lines and continue to remove lead components when found.
- We use robust corrosion control.
- Lead testing at schools: completed July 2019.
- Free lead test for homeowners or renters, one per year: customerservice@ebmud.com
Public Engagement – How & When?

• Construction Projects
  [ebmud.com/construction](http://ebmud.com/construction)

• Board Meetings
  2\textsuperscript{nd} & 4\textsuperscript{th} Tuesdays, 1:15pm
  [ebmud.com/boardmeeting](http://ebmud.com/boardmeeting)

• Environmental Review

• Odor Reporting – Wastewater Plant
  510-287-1522
Careers: Help Protect our Future

- Engineer
- Maintenance
- Operator
- Secretary
- Network Analyst
- Water Conservation
- Construction
- Health & Safety
- Ranger
- Heavy Equipment Operator
- Lab
- Water Supply