Water System Overview

Presented to Alameda LAFCO
March 13, 2014
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1. EBMUD system
2. Infrastructure status including water supply
3. Interconnections, drought prep, conservation
4. Rates, revenues, finance
5. Future opportunities and challenges
1. EBMUD System
1. EBMUD Service Area

WATER SYSTEM
- Retail provider
- 6 Water Treatment Plants
- 136 Pumping Plants
- 167 Distribution Reservoirs
- 4,000 miles of pipe

WASTEWATER SYSTEM
- Wholesale provider
- 1 Wastewater Treatment Plant
- 5 Intercepting Sewer Lines
- 14 Wastewater Pumping Plants
- 4 Wet Weather Treatment Plants
2. Some Upcoming Infrastructure Projects in Alameda County

- Wildcat Pipeline (El Cerrito)
- Wildcat Pipeline (Berkeley)
- Central PZ Pipeline (Richmond/San Pablo)
- Central PZ Pipeline (El Cerrito/Richmond)
- San Pablo CW
- Genoa Pipeline
- Glen Park Pipeline
- North Res.
- Sobrante Aqueduct
- Sobrante WTP
- Orinda WTP
- Wildcat Pipeline (Berkeley)
- Sequoia Aqueduct
- Central Res.
- USL WTP
- South 30 Aqueduct (Northern Portion)
- El Portal Res.
- South 30 Aqueduct (Southern Portion)
- South Res.
2. Supply & Demand

*Urban Water Management Plan*

Plan assesses:

- Current and future demands
- Water supplies
- Recycling program
- Conservation program

2. Water Supply Variability
2. Water Supply — 2040

Normal Year
Projected (2040) Water Supply

- Mokelumne and Local Runoff Supply: 74%
- Recycled Water: 6%
- Conservation: 20%

Three Year Drought - Average Year
Projected (2040) Water Supply

- CVP Supply: 16%
- Mokelumne and Local Runoff Supply: 37%
- Rationing: 10%
- Shortfall: 10%
- Conservation: 20%
- Recycled Water: 7%
- Bayside Supply: 0.3%

1 Conservation - Water conservation savings due to implementation of EBMUD's Water Conservation Program.
2 Zero Local runoff assumed in the drought period.
2. Future (2040) Demands in Alameda County

Projected Demand for Communities in Alameda County

Excluded from graph:
Projected savings via conservation = 23 mgd
Projected savings via recycled water = 3 mgd

Projected growth by year 2040

Demand in year 2005

Average Daily Water Demand (MGD)

Communities (based on mailing zip code):
- Alameda
- Albany
- Ashland (unicity)
- Berkeley
- Castro Valley
- Cherryland (unicity)
- Emeryville
- Fairview (unicity)
- Hayward
- Oakland
- Piedmont
- San Leandro
- San Lorenzo (unicity)
- All Alameda County
3. Interconnections
3. Drought & Conservation

- Normal conservation program includes:
  - Outreach & education
  - Water saving devices
  - Home water use reports
  - Conservation rebates

- With the drought, additional measures:
  - 10% voluntary reduction
  - More outreach
  - Fix-a-leak campaign
4. Rates and Finance (Water system only)

$438M FY13 revenues
$714M FY14 budget
$1B capital program FY14-18
5. Future Challenges

Aging infrastructure will require increasing investment.

Climate change may result in more frequent droughts.
2. Water Supply Management Plan 2040

- **Rationing Level**: 15% (32 MGD)
- **Conservation Level**: D (39 MGD)
- **Recycling Level**: 3 (11 MGD)

- **Water Transfer**: (up to 13 MGD)

- **Sacramento Basin Groundwater Banking/Exchange**: (up to 4.2 MGD)

- **San Joaquin Basin Groundwater Banking/Exchange**: (up to 17.4 MGD)

- **Enlarge Lower Bear Reservoir**: (up to 2.2 MGD)

- **Regional Desalination**: (up to 20 MGD)

- **Bayside Groundwater Project Phase 2**: (up to 9 MGD)

- **Expand Los Vaqueros Reservoir**: (up to 6 MGD)
4. Financial Management

- Recognized by Government Finance Officers Association
  - Distinguished Budget Presentation (13 years)
  - Excellence in Financial Reporting (8 years)

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<th>Water</th>
<th>Wastewater</th>
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<td>Outstanding Debt</td>
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<td>$463.7 million</td>
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<td>Moody’s</td>
<td>Aa1</td>
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4. History of Rate Increases

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<td>2015</td>
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<td>Average</td>
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- 2007-2009 drought
- Global recession
- Efforts to mitigate rate impacts
- FY 2014 and FY 2015—address growth assumptions, deferred maintenance and aging infrastructure

17% drop in sales volume