EAST BAY MUNICIPAL UTILITY DISTRICT

Wastewater System Overview

Presentation to Alameda LAFCO

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Presentation Outline

- Background
- Key Initiatives
  - Renewable Energy Production
  - Wet Weather Flow Management
- Infrastructure Status
- Financial Status
- Future Challenges

Background
Wastewater Service Area

- 88 square miles (325 sq. miles in Water System)
- 650,000 people (1.3 million in Water System)
- Services provided to seven communities
  - Alameda
  - Albany
  - Berkeley
  - Emeryville
  - Oakland
  - Piedmont
  - Stege Sanitary District

Background
Key Wastewater Infrastructure

- Main Wastewater Treatment Plant (MWWTP) in Oakland
- Three wet weather facilities
- 15 pumping stations
  - 8 miles of force mains
- EBMUD owns and operates large interceptor sewers
  - 29 miles of gravity interceptors
  - Stormwater “not included”
- Communities own their collection systems
  - ~1,600 miles of pipe

Wastewater Collection and Treatment Capacity

- No concerns regarding dry weather capacity
  - Average dry weather flow = 50 MGD
  - Permitted dry weather capacity = 120 MGD
- Key concerns regarding wet weather capacity
  - Treatment capacity = 320 MGD
  - EBMUD interceptors receive ~725 MGD during peak storms
  - Requires EBMUD to operate wet weather facilities that only provide partial treatment
  - EBMUD is under a regulatory order to eliminate discharges from WWFs

Key Initiatives
Renewable Energy Production

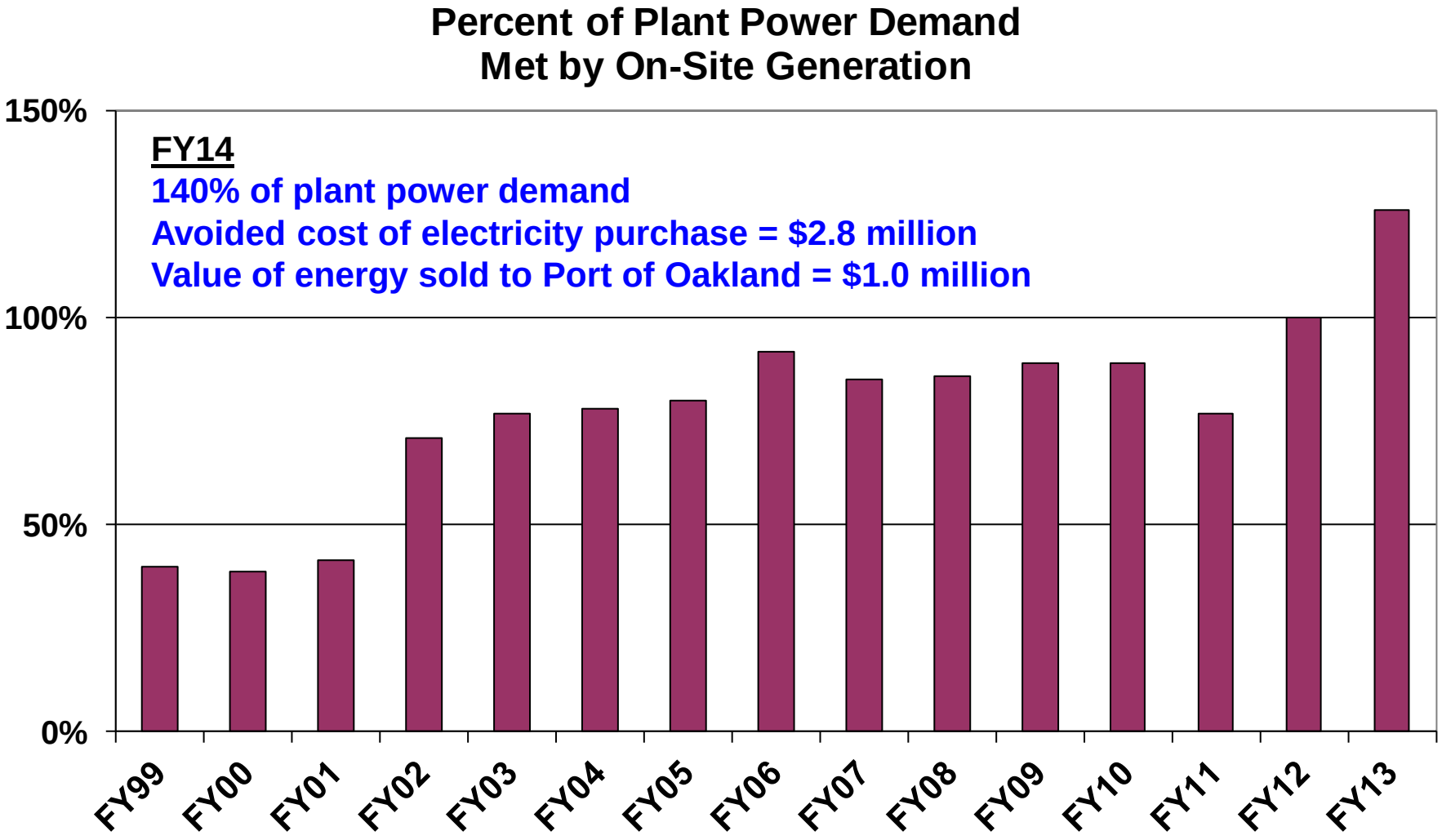
100-120 trucked waste deliveries each day

Anaerobic Digesters

Generation Capacity = 11 MW

WASTE → **BIOGAS** → **ELECTRICITY**

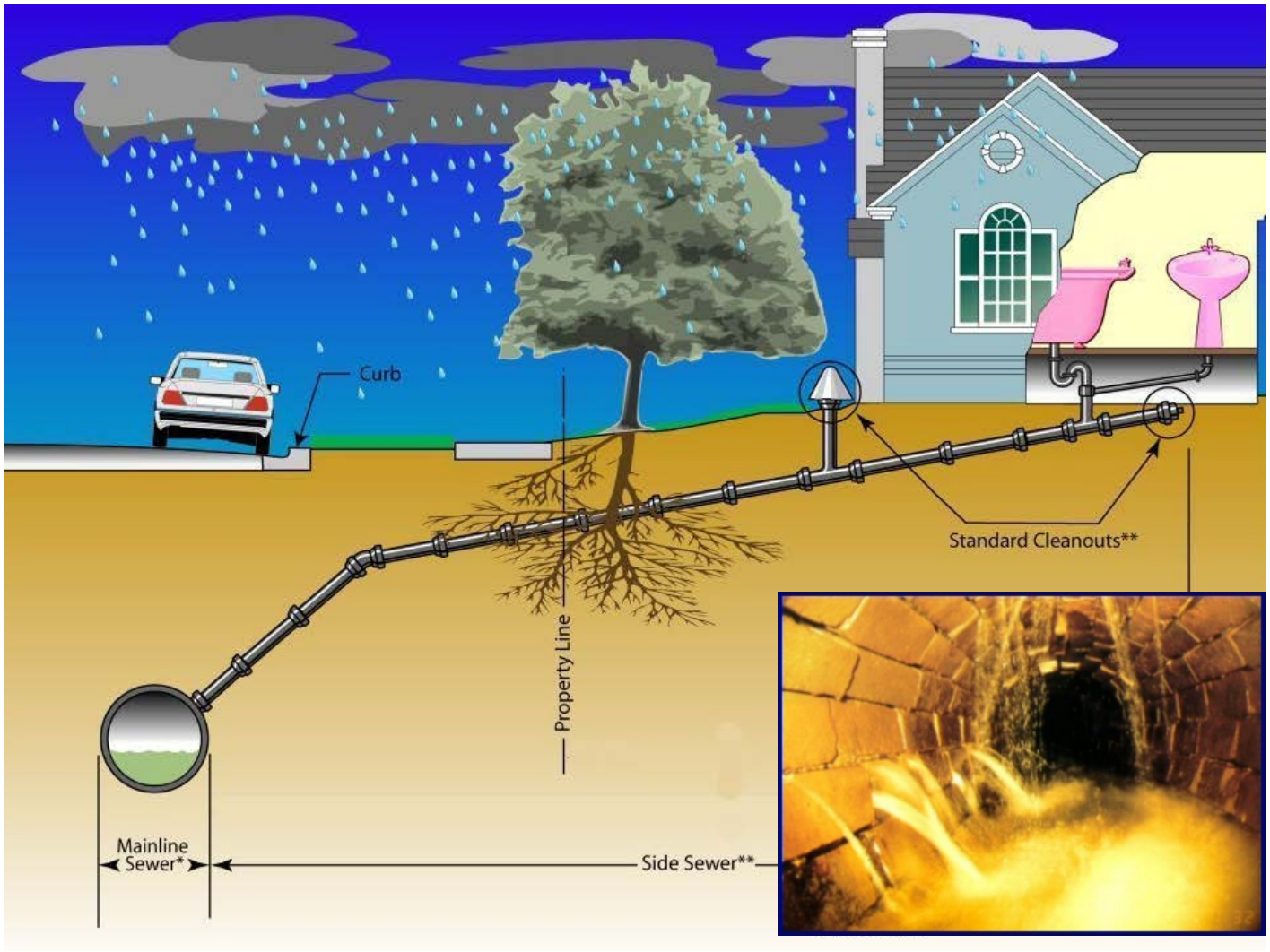
EBMUD's MWWTP is the first net-energy producer in North America



Key Initiatives
Wet Weather Flow Management

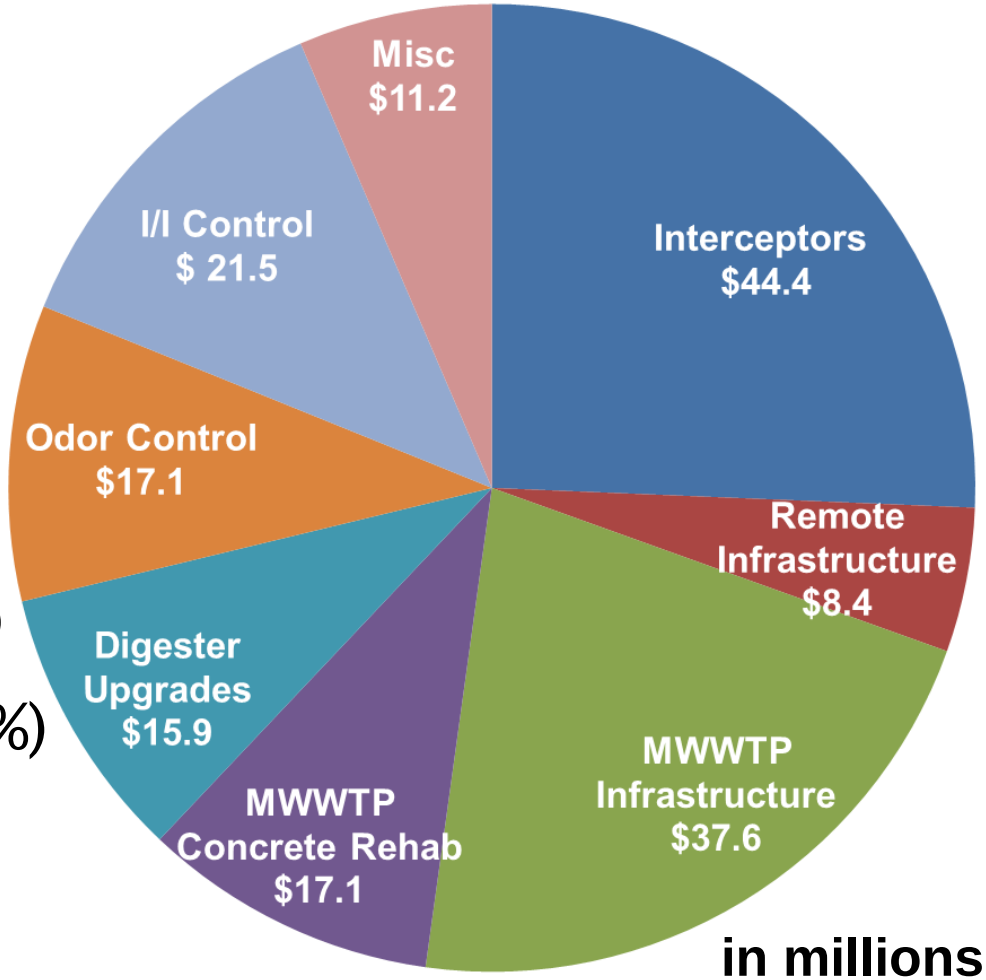
- EBMUD is working with the East Bay communities to develop and implement a long-term regional solution
  - Reduce inflow/infiltration of stormwater into wastewater collection system via cracks in pipes, damaged joints, illegal connections
- Key Focus Areas
  - Address aging infrastructure via sewer rehabilitation and replacement
  - Inspect and replace private sewer laterals, if needed, at point of home sale or in coordination with trunk sewer repairs by communities

Wet Weather Inflow/Infiltration Diagram



Wastewater CIP Infrastructure Status

- Wastewater Capital Improvement Program
  - 5-year: $175 million
  - 10-year: $350 million
- Key Program Areas
  - Interceptor Rehab (26%)
  - Plant Infrastructure (22%)
  - I/I Control (12%)
  - Odor Control (10%)
  - Concrete Rehab (10%)



in millions

FY14-FY18

Wastewater System Financial Status

- FY15 Budget = $144 million
  - Capital = $46.8 million
  - Operating = $63.4 million
  - Debt Service = $34.3 million
- Rate Increases
  - FY14: 9.0%; FY15: 8.5%
- Excellent bond rating with stable outlook

Future Challenges
Nutrient Loading to SF Bay

- The resiliency of SF Bay to nutrient (nitrogen, phosphorus) loading is declining
- Most Bay Area agencies are not currently required to remove nutrients
- Implementing potential capital improvements at treatment plants may cost billions of dollars
  - Outstanding questions regarding condition and potential impairment of SF Bay
- Bay area wastewater agencies are working with regulatory agencies to implement a science-based approach to determining what actions are required

Future Challenges (cont'd)

- Odor control
- Biosolids management
- Aging infrastructure
- Workforce transition

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