

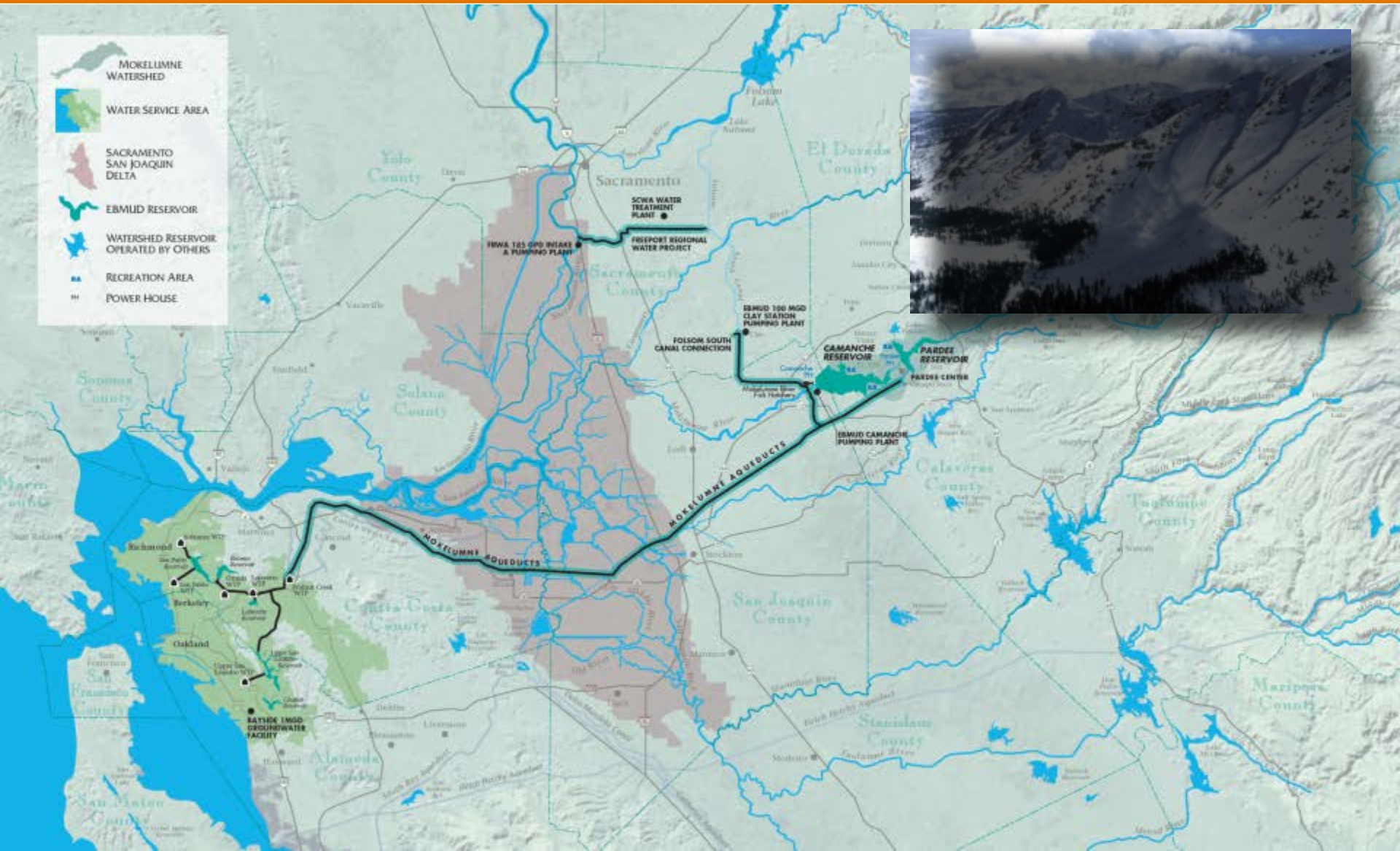
EBMUD GHG Programs

California Water Commission
June 19, 2019

EBMUD Water System



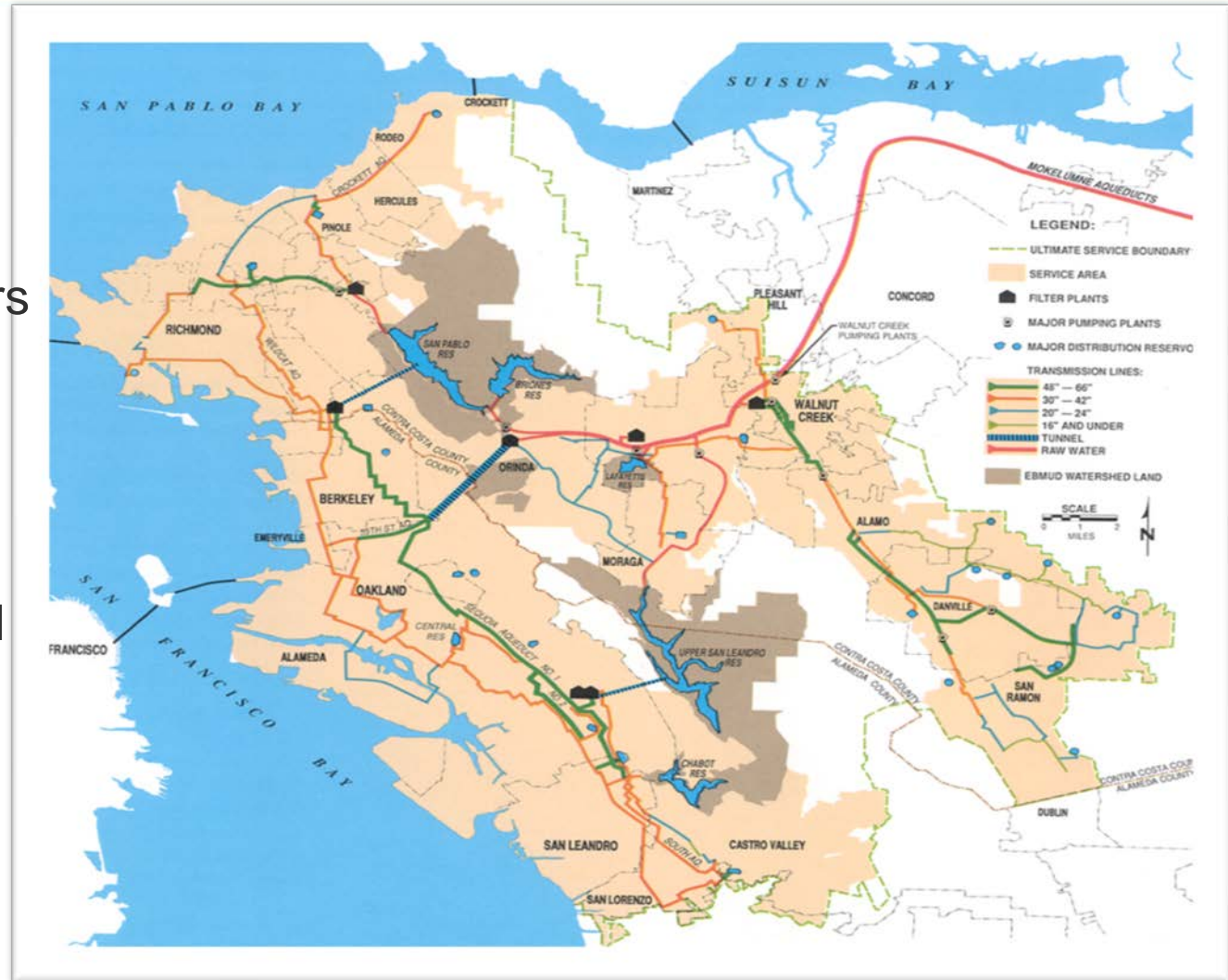
- MORELIMNE WATERSHED
- WATER SERVICE AREA
- SACRAMENTO SAN JOAQUIN DELTA
- EBMUD RESERVOIR
- WATERSHED RESERVOIR OPERATED BY OTHERS
- RECREATION AREA
- POWER HOUSE



EBMUD Service Area



- Formed in 1923
- 1.4 million customers in Alameda and Contra Costa Counties
- 35 cities and communities served
- 332 square mile service area



EBMUD Wastewater System



EBMUD provides wastewater services for 680,000 residents in the East Bay

- Main Wastewater Treatment Plant
- Three wet weather facilities
- 15 pumping stations
- 29 miles of gravity sewer interceptors
- 8 miles of sewer force mains



District Policy 7.05 – Sustainability



- Incorporates environmental, social, and economic impacts into District decision-making
- Key Policy Statements
 - Identify and implement projects that mitigate climate change impacts and reduce greenhouse gas emissions
 - Move towards zero waste and seek ways to recycle materials

- GHG emission goals for 2040

2005-2007

Indirect Emissions: Carbon-free by 2040

Mandatory Adaptation Plan under development

= District is a California Climate Action Registry Member

Main Wastewater Treatment Plant reports under

Major issues being considered

- AB32 since 2008 and verified data

- Other Key Policy Statements

Long term Water Supply

2008-2017 Accounting

- Invest and promote District vehicle fuel economy

- Water Quality

= DCR protocols as framework for inventories

- Reduce vehicle miles traveled

- Infrastructure

- No phase reporting or verification

- Choose least cost option to meet overall goals

Climate Adaptation Plan



GHG Inventories



Voluntary Accounting Program



Voluntary Accounting Program



- 2018
 - Follow new/updated TCR protocols
 - General Reporting Protocol Version 3.0
 - Water Energy Nexus Protocol (first edition)
 - Use the Climate Registry Inventory System (CRIS) for reporting
 - Third party verification and public disclosure of data

Inventory Practices (briefly)



- Inventory boundary
 - All raw water, treated water, wastewater, transmission, buildings in inventory
- Data collection
 - Energy in Electric Bill Tracking system
 - Fuels from purchasing
 - Integration with AB32 data at Main WWTP

Inventory Practices (briefly)

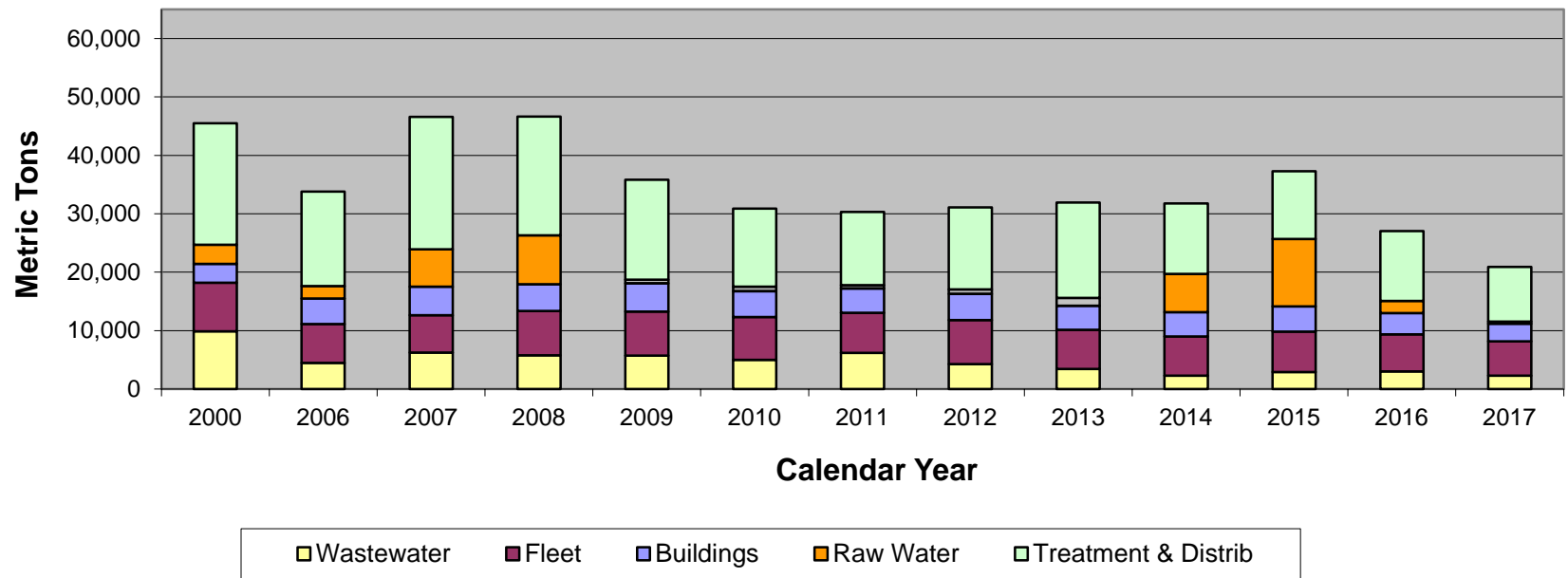


- Data Compilation
 - Reevaluating our data to align with TCR protocols and reporting in CRIS
- Data Presentation
 - Annual briefing to Board of Directors
 - Annual update report
 - Transitioning from internal reporting to more public disclosure

District GHG Emissions History



Districtwide CO2 Emissions



Emissions by Sector/Source



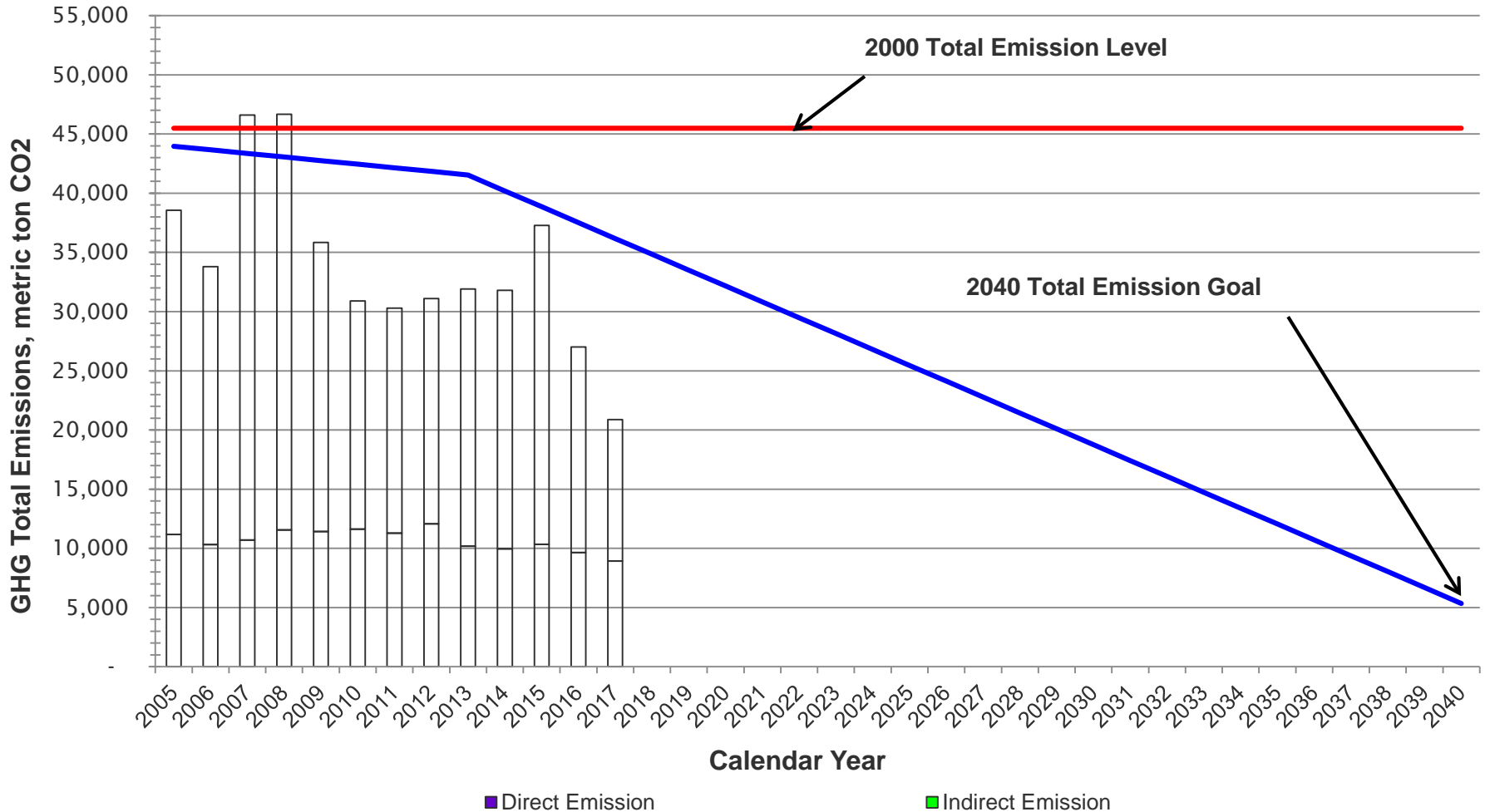
2017 Greenhouse Gas Emissions By Sector		
Sector	Metric Tonnes CO2e	Percent of Total
Buildings	2,999.31	14.4%
Fleet	5,886.54	28.2%
Raw Water	398.09	1.9%
Treatment & Distribution	9,328.66	44.7%
Wastewater	2,271.43	10.9%
Total	20,884.03	100.0%

Biogenic emissions in 2017 were 35,527.09 metric tons; an increase of 9.5% from 2016 levels.

GHG Emissions



Annual GHG Total Emission vs Goal



GHG Reduction Actions



- Hybrids replacing gasoline passenger cars in Fleet
- Solar installations
- Selection of green power suppliers
- Energy conservation
- Use of LED lights and energy efficient equipment

GHG Reduction Actions



- Commute Related Options
 - Transit Subsidy
 - Limited Telecommuting
 - Carpooling Resources
 - Bike-to-Work/Walk-to-Work Stipend
 - Guaranteed Ride Home

Questions

