

Water Resource Recovery & Resilience

Santa Ana River Watershed 2014



Orange County Sanitation District

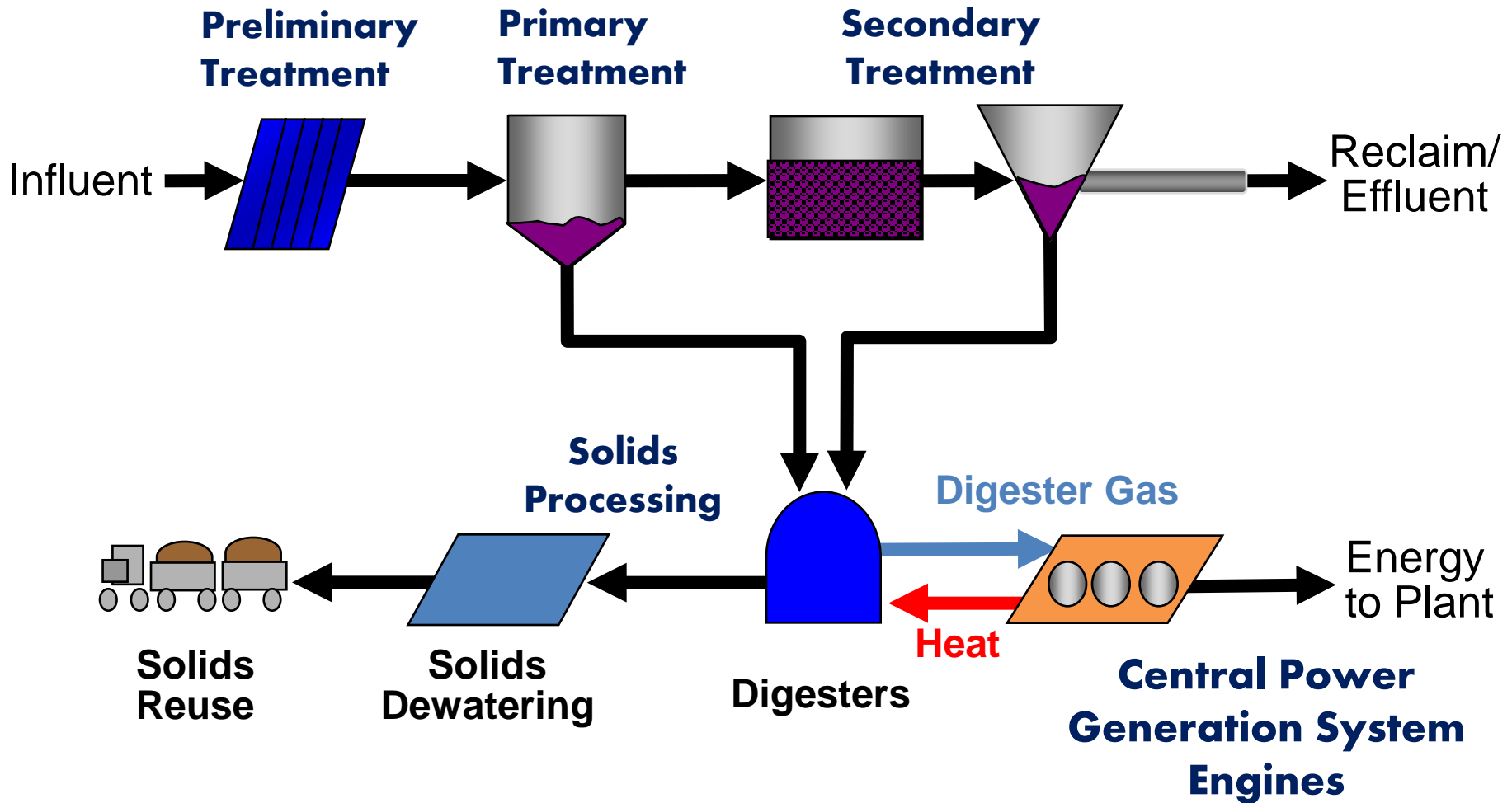
We're here for you.

October 14, 2014



“To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.”

Water Resource Recovery





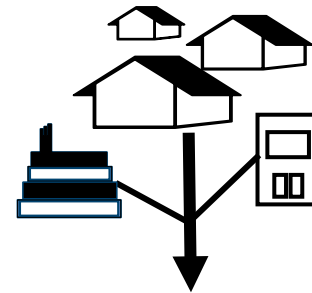
Sources of water for Orange County

Groundwater is pumped from wells by producers (cities and water districts)

- 74% of the water used in North and Central OC
- Groundwater basin recharged by Santa Ana River, rainwater, imported and recycled water



Wastewater reclamation partnership since 1972

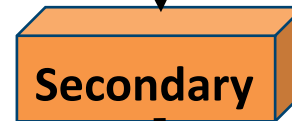


OCSD

Enhanced source control in collections system



Wastewater treatment



OCWD

Reuse



Why did we partner? Planning in the 1990s

OCSD – Defer the need
for a new ocean outfall

OCWD – Need more water

- Larger seawater intrusion barrier
- 5 year drought 1987–92
- Steady population increases
- Imported water supply challenges
- Improve groundwater quality



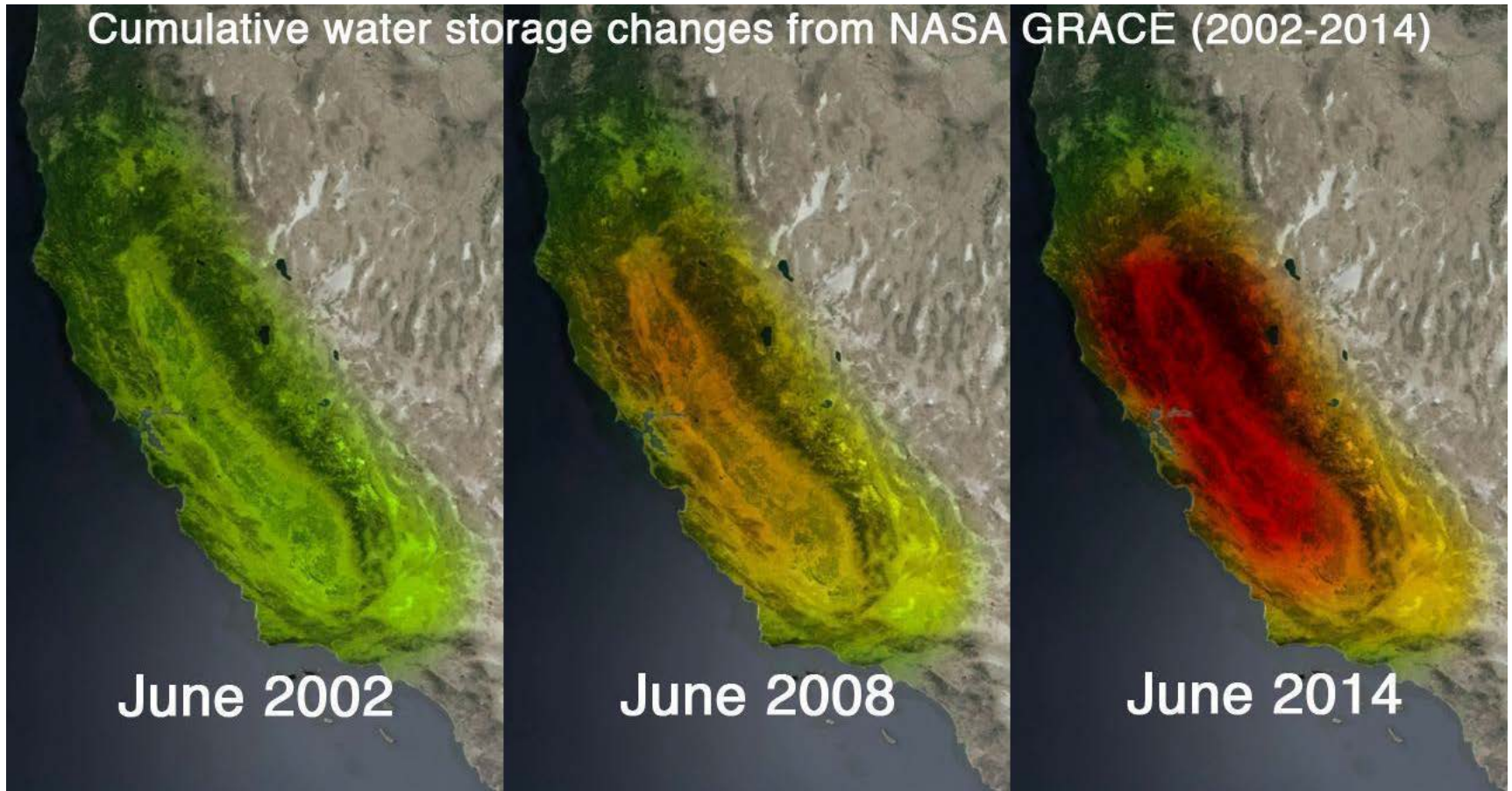


OCSD Focuses on Wastewater as a Resource

- Master planning
- Enhanced source control program
- Flow diversions
- Secondary treatment operations
- Communications



Declining Wastewater Flows



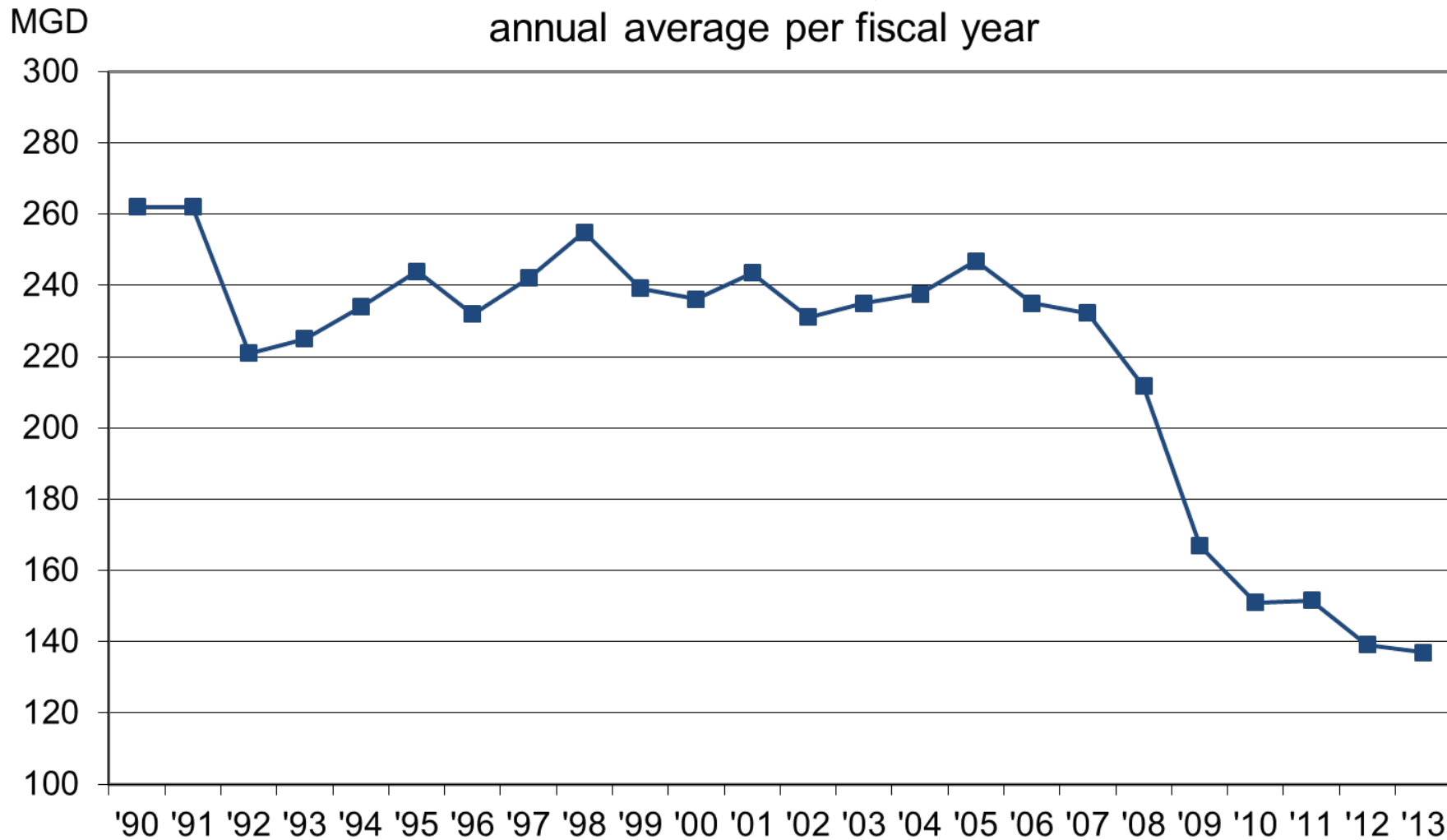
239 MGD

218 MGD

198 MGD

Less Water to the Ocean

Final Effluent Flow, MGD
annual average per fiscal year



OCSD Water Recycling Goals

- 💧 Work with OCWD to jointly study improvements needed to support GWRS Final Expansion.
- 💧 Determine partnerships, needs, strategies, benefits and costs associated with recycling any remainder flows from Plant No. 2 effluent water.

Digester Gas Recovery

Produced

11 MW of Electricity

Recovered

1.3 M Therms Heat

Saved

\$ 5 million annually



Fuel Cell Evaluation



Our High-Quality Products:

Treated solids fertilize farm fields

Hay Farm, Yuma, AZ

- Farming with biosolids since 1980's
- Valuable macro- & micro nutrients
- Reduces fossil-fuel fertilizer use
- Conserves water, sequesters carbon



Composting, Central Valley, CA



The Santa Ana River Interceptor



Questions?

