INVESTMENTS IN DROUGHT PROOFING
HOW LONG WILL THEY LAST?

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ORANGE COUNTY WATER DISTRICT (OCWD)

- Formed in 1933 by California Legislature
  - Manage the OC Groundwater Basin
  - Protect rights to Santa Ana River water
- Provide groundwater
  - 19 municipal and special water districts
  - 2.5 million customers in north & central OC
- Basin supplies 77% of the water supply for north & central OC
OCWD BASIN ACCUMULATED OVERDRAFT

Target Overdraft
THE GROUNDWATER REPLENISHMENT SYSTEM

• 100 million gallon per day (MGD)
• Purifies sewer water that otherwise would be discharged to the ocean
• Drinking water quality
• Replenishes the Groundwater Basin with 103,000 afy of water—enough water for nearly 850,000 people
• Operational since January 2008 (70 MGD), expanded May 2015 (30 MGD), final expansion under construction and will be complete in 2023 (30 MGD)
• Largest potable reuse project in the world
GWRS
GROUNDWATER REPLENISHMENT SYSTEM

Highly Treated Wastewater

Microfiltration (MF)

Reverse Osmosis (RO)

Ultraviolet Light (UV)
with Hydrogen Peroxide

Seawater Barrier
(36 well sites)

Recharge Basins in Anaheim

Backwash
Sent to OCSD

Brine Sent
to OCSD
PROJECT FUNDING

• Original Project Cost: $481 million
  – Split equally between OCWD and OCSD
  – Received $92 million in state and federal grants

• Initial Expansion Project Cost: $142 million
  – Received $1 million in state grants

• Final Expansion Project Cost: $270 million
  – Received $135 million in WIFIA loan (1.03%) & $9 million in grant funding

• Costs comparable to imported water
• All 3 projects received State Revolving Fund (SRF) loans
• Costs $630 per acre-ft ($850 per acre-ft w/o grants)
LONG LASTING BENEFITS OF GWRS

• Creates a new local water supply
• Reuses a wasted resource
• Increases water supply reliability
• Costs less than water from the Colorado River and the State Water Project
• Uses one-half the energy it takes to import water and one-third the energy to desalinate seawater
• Improves quality of water in the basin
QUESTIONS?

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