Developing a Locally Sustainable Groundwater Supply in Los Angeles County

October 24, 2017
Presenters

Robb Whitaker, General Manager
Robb Whitaker has worked in the field of water resources engineering and planning for over 30 years. He has wide ranging experience with water distribution infrastructure, water supply forecasting, and groundwater basin management. Robb is the General Manager of the Water Replenishment District of Southern California (WRD), a regional groundwater agency that manages two major groundwater basins located in southern Los Angeles County. During his 25 years at WRD, Robb has developed and implemented many projects and programs to increase the safety and reliability of the Central and West Coast Groundwater Basins. Mr. Whitaker received a B.S. in Civil Engineering with emphasis in Water Resources from the University of Southern California. He is a registered Professional Engineer in the state of California.

Ken Ortega, Assistant General Manager/ Chief Engineer
Ken has a long history in public works and water resources management. He has been with the District for more than two years and has been key in implementing the District’s cornerstone project, the construction of the Groundwater Reliability Improvement Project’s Advanced Water Treatment Facility, which will allow the District to become independent from imported water. Prior to the District, Ken founded BASE Water Resources, a small private consulting business specializing in water resources planning and development projects. In addition, Ken worked for the City of Oxnard for more than ten years as the Water Superintendent and Director of Public Works. Ken is a native to the Central Coast and received his civil engineering degree from California Polytechnic State University (Cal Poly), San Luis Obispo.
420 square miles

43 cities

Population = 4 million (over 10% of California's population)

Groundwater provides half of the water supply
Collection of projects to eliminate WRD demand for imported water

- Capture and conserve additional stormwater
- Increase use of recycled water for groundwater replenishment

Creates locally sustainable groundwater supply
Spreading Grounds (percolation basins)
L.A. County Replenishment Facilities

Rio Hondo Spreading Grounds

San Gabriel River Spreading Grounds
GROUNDWATER RELIABILITY IMPROVEMENT
ADVANCED WATER TREATMENT FACILITY

GRIP IS THE CORNERSTONE
OF WRD’S WIN PROGRAM

GRIP WILL PROVIDE 21,000 ACRE-FOOT PER YEAR
OF RECYCLED WATER IN PLACE OF EXPENSIVE
IMPORTED WATER.

UPON COMPLETION, GROUNDWATER BASINS
WILL BE COMPLETELY LOCALLY SUSTAINABLE

SECURING OUR
WATER FUTURE TODAY

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What is GRIP?

Status Quo

- 21,000 AF Imported Water
- 50,000 AF Recycled Water (tertiary)
- 54,000 AF Stormwater Capture

125,000 AF total water

21,000 AF Recycled Water

50,000 AF Recycled Water (tertiary)

54,000 AF Stormwater Capture
What is GRIP?

**Status Quo**

- 21,000 AF Imported Water
- 50,000 AF Recycled Water (tertiary)
- 54,000 AF Stormwater Capture

**GRIP**

- 10,000 AF Adv. Treated Recycled Water
- 11,000 AF Add’l. Tertiary Recycled Water
- 50,000 AF Recycled Water (tertiary)
- 54,000 AF Stormwater Capture
What is the Cost of GRIP?

**Status Quo**

- **$770 per AF**
  - 50,000 AF Recycled Water (tertiary)
  - 54,000 AF Stormwater Capture

**GRIP**

- **$1,200 per AF**
  - 50,000 AF Recycled Water (tertiary)
  - 54,000 AF Stormwater Capture
  - **$768 per AF**
GRIP site
(about 1 mile upstream)

San Gabriel Coasting Spreading Grounds

1 mile
Downstream

Neighborhood across street
Held Community Design Forum

JOIN US
ACOMPÁÑENOS
Saturday, June 6, 2015
Saludo, 6 de junio, 2015

WHEN:
Saturday, June 6, 2015
11 AM – 2 PM

WHERE:
Pico Rivera Municipal Golf Course
3260 Fairway Drive
Pico Rivera, CA 90660
- GRIP will cost $107 million
- WRD will receive over $20 million in grants and also $80 million in a low-interest, long-term loan financing through Prop 1
  - IRWMP
  - SWRCB
  - RMC
- Grant funding and Prop 1 SRF loan will save WRD $46 million over 30 years
GROUNDWATER RELIABILITY IMPROVEMENT ADVANCED WATER TREATMENT FACILITY

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FULLY ADVANCED TREATMENT (FAT) PROCESS

MICROFILTRATION

1 Water is filtered through a fine membrane to remove bacteria and other organisms.

REVERSE OSMOSIS

2 Water is directed through high pressure membranes to eliminate salts, viruses, pesticides and most organic compounds.

ULTRAVIOLET LIGHT AND SODIUM HYPOCHLORITE

3 The combination accelerates the breakdown of organic compounds.

PROCESS FACILITY
MICROFILTRATION REVERSE OSMOSIS UV/AOP
GROUNDWATER RELIABILITY IMPROVEMENT
ADVANCED WATER TREATMENT FACILITY

OPERATIONS AND LEARNING CENTER

INTERACTIVE LEARNING CENTER EXHIBITS
DEMONSTRATION GARDEN
LARGE AND SMALL MEETING SPACES
LEED’S CERTIFIED

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GRIP Construction Progress to Date
(view from southwest corner)
CONSTRUCTION SCHEDULE

- APR: Deconstruction
- MAY: Supplemental Recharge Wells
- JUN: Brine Disposal Pipeline and Street Improvement Project
- JUL: Groundwater Reliability Improvement Project
- AUG: Advanced Water Treatment Facility
- SEP: October
- OCT: November
- NOV: December
- DEC: January

[2016 / 2018]
Thank You

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