Groundwater Replenishment System

APRIL 2007 MONTHLY PROGRESS REPORT

project partners

PROGRAM DESCRIPTION

The Groundwater Replenishment (GWR) System is a jointly funded project of the Orange County Water District (OCWD) and Orange County Sanitation District (OCSD) with OCWD as the lead or constructing agency. The GWR System is a water supply project designed to ultimately reuse approximately 140,000 acre-feet per year (afy) of advanced treated wastewater (recycled water). The phase currently being constructed will supply approximately 72,000 afy and provide the backbone facilities for future expansion. The GWR System will supplement existing water supplies by providing a new, reliable, high-quality source of water to recharge the Orange County Groundwater Basin (the Basin) and protect the Basin from further degradation due to seawater intrusion. It will also postpone the need for OCSD to construct a new ocean outfall by treating excess storm flows.

The GWR System will be comprised of three major components: (1) Advanced Water Purification Facility (AWPF) and pumping stations; (2) a major pipeline connecting the purification facility to existing recharge basins; and (3) expansion of an existing seawater intrusion barrier. Phase 1 of the GWR System will have a nominal rated product water capacity of 70 million gallons per day (mgd). Timing of future phases will be determined by projected flow requirements for anticipated water demands.

The construction of the GWR System will consists of seven major construction contracts totaling $410.3 million and a total program budget of $486.9 million.

For more information regardng the Groundwater Replenishment System, contact our Website at www.gwrsystem.com.

purpose:

The GWR System will be comprised of three major components:

1 Advanced Water Purification Facility (AWPF) and pumping stations

2 A major pipeline connecting the treatment facilities to existing recharge basins

3 Expansion of an existing seawater intrusion barrier.

PROJECT HIGHLIGHTS

There are three major components to the GWR System Project:

1. Advanced Water Purification Facility in Fountain Valley - 88% complete.
2. A 13-mile pipeline from Fountain Valley to Anaheim (along the Santa Ana River) - 100% complete.
3. Expansion of the Seawater Intrusion Barrier facilities - 100% complete.

PROJECTS UNDER CONSTRUCTION

AWPF Control Room

GWR System Unit I Pipeline (Budget $28,000,000)

The Unit I GWR Pipeline contract involves installation of approximately 31,000 linear feet of 78-inch, 72-inch, and 66-inch diameter cement mortar lined and coated steel pipe along the Santa Ana River from the plant site in Fountain Valley to just north of 17th Street in Santa Ana.

The Unit I pipeline contract has been successfully completed and will be taken to the GWR System Committee and Orange County Water District Board of Directors for a Notice of Completion in May.

AWPF Microfiltration Blowers

Advanced Water Purification Facility (Budget $305,300,000)

The AWPF contract includes all structures, piping and facilities that are within the boundaries of the OCWD and OCSD treatment site located at Ellis Avenue and Ward Street in Fountain Valley. Facilities include the Screening Facility at OCSD's Plant No. 1, the 96-inch diameter influent pipeline from the Screening Facility to Microfiltration Facility, Microfiltration Facility (86 mgd filtrate), Microfiltration Break Tank, Reverse Osmosis Facility (70 mgd permeate), UV System (70 mgd product), Chemical Feed/Lime Stabilization System, Product Water/Barrier Pump Station, and all yard piping. Included in the AWPF contract will be all electrical, instrumentation, and process control systems (PCS) associated with each facility. The MF and UV equipment was pre-selected by the District and their contracts were assigned to the Contractor.

AWPF Microfiltration Filtrate Pumps/
Stored Membrane

The AWPF contractor continues finish work on the east and west side microfiltration buildings. Installation of mechanical piping and electrical control wiring has been completed in the west microfiltration galleries. Commissioning activities on the microfiltration filtrate pump system is beginning in both east and west microfiltration galleries. Commissioning activities on the control valves in the reverse osmosis area began this past week and will continue for the next two weeks. Electrical testing in switchgear, motor control centers and variable frequency drives continues throughout the facility in all areas. Energization of transformers and motor control centers has taken place in the microfiltration area and power has been established to the control room. The control room has been set up with permanent computers and communication with the computers has been established. Commissioning activities at the air gap pump station and screenings facility are currently underway and will continue for the next two weeks. Concrete curb and gutter is currently being installed throughout the site and will be completed in two weeks. Final site paving is scheduled to begin in the middle of May. Plant start-up and overall project completion is scheduled for November 2007.

AWPF Reverse Osmosis
Main Pipe Gallery

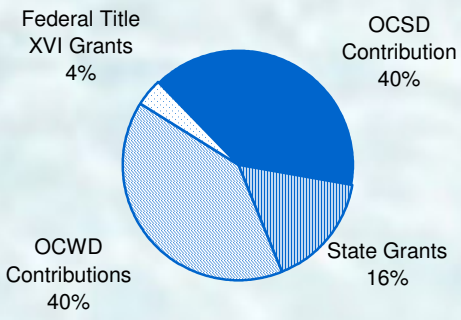
GWR System Active Projects Construction Schedule

ID	Project Name	2007								2008			
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Advanced Water Purification Facility												

GWR System Construction Schedule

ID	Project Name	2002	2003	2004	2005	2006	2007
1	Southeast Barrier						
2	Interim Water Purification Facility						
3	GWR System Unit III Pipeline						
4	GWR System Unit II Pipeline						
5	GWR System Unit I Pipeline						
6	Barrier Facilities						
7	Advanced Water Purification Facililty						

Project Funding



EPA Grant	$500,000
State Water Resources Control Board Grant	$5,000,000
US Bureau of Reclamation Grant	$20,000,000
Department of Water Resources Grant (Prop. 13)	$30,000,000
Santa Ana Watershed Project Authority Grant (Prop. 13)	$37,000,000
OCWD Contribution	$198,560,000
OCSD Contribution	$198,560,000

Projected vs. Actual Costs