



IWS Completes Construction of Innovative Advanced Water Purification Demonstration Project

As the drought worsens in the Western United States, Padre Dam Water District in Santee, CA is working towards providing a new source of locally controlled, reliable, drought proof, and an environmentally sound source of drinking water for the California communities of Santee, El Cajon and others cities in the San Diego suburbs that are in the water district.

IWS was selected from a short list of Pre Approved Contractors to submit a Bid and proposal for construction of the new facilities. IWS was selected through competitive bid by the Padre Dam Water District, to construct the Advanced Water Purification Demonstration project. The \$1.6 Million pilot plant was constructed to treat approximately 100,000 GPD of secondary treated wastewater. During the pilot phase the effluent will be tested and then returned to the wastewater treatment plant. Once the demonstration plant is scaled up, the treated water be re-injected to the groundwater as a future potable water source.

The newly constructed facility uses state of the art-technologies. The innovative process takes the



Free Chlorine System

secondary treated wastewater through four water purification steps: a) free chlorine disinfection, b) membrane filtration, c) reverse osmosis and d) ultra violet/advanced oxidation.

This project is part of the initial phase of planning and testing for the existing treatment plant expansion and construction. The District is working with other water districts, cities and the County of San Diego, CA to evaluate and begin planning for the construction of an expanded County program, for treating more than 20 MGD of wastewater for eventual re-use as a potential potable water source.

The project, constructed at the existing 2.5 MGD Treatment Facility, included the following:

- Extensive planning and project preparation with project team prior to delivery of water treatment equipment and materials



Pre-Chlorine Contact Tank and RO Product Tank



Pilot Plant

- Coordination with the electrical instrumentation and control equipment suppliers\ under contract to IWS and detailed review of installation and schedule requirements
- Site grading, and preparation for plant construction
- Construction of concrete pads and other civil details
- Installation of treatment Equipment including, reverse Osmosis, UV, and Membrane filtration



Pilot Plant

- Installation and testing of control systems and Instrumentation
- Construction and installation of conveyance and discharge lines
- Site restoration, paving, fencing, and visitors center installation
- Facility testing, start-up, and initial operations support
- Project Closeout and Completion

For More Information Contact

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