INTEGRATED WATER SERVICES

Clean Water. Clear Choice.

CASE STUDY

Advanced Water Treatment at Edom Hill

Project Type: Commercial Development, Water Reuse

Location: Riverside County, California

HIGHLIGHTS

First commercial on-site Advanced Treatment Unit (ATU) ever installed in Riverside County, CA.

A collaborative success: The project involved close coordination between several parties.

Telemetry-based control system allowed for continuous, 24/7 automated monitoring of the system's performance.

BREAKING GROUND: RIVERSIDE COUNTY'S FIRST COMMERCIAL ADVANCED WASTEWATER TREATMENT SYSTEM

A landmark infrastructure project for Integrated Water Services (IWS), marking a significant shift in how commercial wastewater is managed in Southern California's desert regions.

CHALLENGES FACED

- **Strict Environmental Constraints:** The local geography suffered from low percolation rates, making a traditional septic "leach field" ineffective for disposing of wastewater.
- **Complex Site Logistics:** Construction took place at an active, newly constructed transfer station, requiringclose coordination between IWS, Waste Management, Riverside County officials, and technology vendors
- **Regulatory Scrutiny:** As the first system of its kind in a county of 1.8 million people, the project faced high visibility and required strict adherence to local health and safety standards.

SOLUTIONS IMPLEMENTED

- **Advanced Textile Filtration:** IWS installed three Orenco AX-20 treatment units, which use textile media to treat effluent to a much higher quality than a standard septic tank
- **Strategic Storage:** The system utilized large-scale infrastructure, including a 6,000-gallon Xerxes septic tank for solids retention and a 2,000-gallon dosing tank for treated effluent.
- **Automated Subsurface Irrigation:** To bypass the soil percolation issues, IWS installed 5,000 feet of Geoflow drip system to disperse treated water into curbed landscape "islands."

OUTCOME AND IMPACT

- **Operational Efficiency:** The system achieved a successful start-up, meeting all scheduled deadlines despite the complexity of the installation.
- **Water Resource Recovery:** By reusing treated wastewater for landscape irrigation, the facility reduced its reliance on the domestic water supply.
- **Remote Oversight:** The implementation of a telemetry-based control system allowed for continuous, 24/7 automated monitoring of the system's performance via a phone line.

The Edom Hill Transfer Station project served as a proof-of-concept for advanced onsite wastewater treatment in Riverside County. By integrating specialized filtration technology with automated drip irrigation, IWS successfully overcame the geological limitations of the Palm Springs area. This project not only provided Waste Management with a sustainable waste solution but also established a new regulatory and technical precedent for commercial developments throughout the region.

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info@integratedwaterservices.com (833) 758-3338 integratedwaterservices.com
115 Wild Basin Road S., Suite 107, Austin, TX 78746