

CASE STUDY

IWS Delivers Treatment for LEED Gold Campus

Project Type: Schools/Water Reuse

Location: Tucson, Arizona

HIGHLIGHTS

Enabled treated wastewater to be reused for subsurface irrigation, supporting the high school campus's pursuit of LEED Gold Certification.

Turn-key treatment system designed to efficiently handle the current needs and future student population growth.

Completed successfully within the tight three-month schedule.

FROM WASTE TO WATER

Integrated Water Services (IWS) partnered with Lloyd Construction to design and build a state-of-the-art decentralized wastewater treatment plant (WWTP) for the shared Andrada Polytechnic and Pantano High School campus near Tucson, Arizona. This critical system manages the schools' wastewater needs and is fundamental to achieving LEED Gold Certification by enabling treated water reuse for subsurface irrigation, establishing the campus as a leader in educational sustainability.

CHALLENGES FACED

- **Complex Shared Capacity & Future Growth:** The project required a single, efficient wastewater system to serve two distinct high schools while accommodating the anticipated student population growth from 800 to 1,100 students
- **Stringent Sustainability & Water Reuse Mandates:** The WWTP had to meet high-quality treatment standards to enable water reuse for subsurface irrigation, which was a mandatory component of the larger effort to secure LEED Gold Certification
- **Aggressive Deadline for System Completion:** IWS was required to complete the entire field effort, including start-up and sign-off, within a tight three-month window to ensure the system was fully operational before the schools' opening date.



SOLUTIONS IMPLEMENTED

- **Turn-Key System Design and Construction:** IWS provided a comprehensive, turn-key solution, installing advanced treatment components including primary tanks, recirculation/dosing tanks, and AX-100 pods to ensure high-quality effluent.
- **Integrated Water Reuse Infrastructure:** A dedicated water reuse system was integrated, featuring two flow meters and 9,000 linear feet of Geoflow line specifically designed to distribute the treated water for on-campus subsurface irrigation.
- **Effective Project Management and Collaboration:** By working closely with the GC, [Lloyd Construction](#), IWS was able to successfully execute the complex scope and adhere strictly to the critical three-month project schedule.



OUTCOME AND IMPACT

- **Achieved Critical Water Reuse Goal:** The project successfully implemented a system that treats wastewater to a high standard, enabling its reuse for non-potable needs and significantly reducing the campus's reliance on external water sources.
- **Supported LEED Gold Certification:** By closing the water loop and integrating with a 1 MW solar energy system, the WWTP contributes significantly to the campus's overall sustainability profile and its path toward LEED Gold Certification.
- **On-Time Project Delivery:** IWS completed the three-month field effort, start-up, and system sign-off before the official school opening, meeting the critical project schedule and ensuring smooth operations for the client.

The on-site wastewater treatment plant built by IWS for Andrada Polytechnic and Pantano High Schools is a testament to efficient, sustainable infrastructure. By delivering a scalable, turn-key system on time and in collaboration with Lloyd Construction, IWS provided a long-term, high-quality solution that enables water reuse for irrigation, supports the LEED Gold pursuit, and conserves vital water resources while accommodating future student growth.

"IWS was very professional and worked well with Lloyd. We would welcome the opportunity to work together with IWS on future projects."

Jeff Dupuis, Lloyd Project Manager

