

CASE STUDY

Reuse Project For New Mexico School District

Project Type: Schools, Water Reuse

Location: Ojo Caliente, New Mexico

HIGHLIGHTS

Eliminated reliance on a more expensive community water supply system at El Rito Elementary.

Reuse system at Mesa Vista Elementary recycles treated wastewater to irrigate the school's athletic field.

Construction of a 10,000 GPD recirculating sand filter and a 60,000-gallon cast-in-place concrete tank.

ENVIRONMENTALLY RESPONSIBLE WATER REUSE OPPORTUNITY

Integrated Water Services, Inc. (IWS) completed a water, wastewater, and reuse infrastructure construction project at two Mesa Vista Consolidated Schools in Northern New Mexico. The two schools are located fifteen miles apart and were constructed concurrently with different scopes of work. The project was part of the district's facilities upgrade program for water and wastewater systems. The completed project resulted in key operational and cost-saving impacts for the school district.

CHALLENGES FACED

- **Reliance on Expensive Community Water Supply System:** At El Rito Elementary School, the existing water supply system needed to be modified to eliminate reliance on a more expensive system.
- **Environmental Hazards:** The IWS crew faced environmental hazards which included rattlesnakes and the hot desert sun.
- **Complex Dual Scope of Work:** The project required the concurrent construction of different scopes of work at two separate school locations, fifteen miles apart.



SOLUTIONS IMPLEMENTED

- **Wastewater and Reuse System:** Construction of a 10,000 GPD recirculating sand filter and a 60,000-gallon cast-in-place concrete tank at Mesa Vista Elementary. It also included subsurface irrigation piping under the athletic field and interior of the track area.
- **Domestic Water System:** A new 34,000-gallon above-ground water storage tank was constructed, complete with a booster pump and control system for the domestic water and fire lines at Mesa Vista Elementary.
- **Water Supply Modification:** The existing water supply system was modified to connect to an on-site well. IWS upgraded the pumps and control system, installed associated piping, a chlorination system, and remodeled the existing pump house at El Rito Elementary.



OUTCOME AND IMPACT

- **New Water Source and Cost Savings:** At El Rito Elementary, the existing system was modified to connect to an on-site well, which eliminated the reliance on the more expensive community water supply system.
- **Wastewater Reuse for Irrigation:** The wastewater system at Mesa Vista Elementary was upgraded to allow for the reuse of recycled water to irrigate the school's athletic field.
- **Timely and Safe Completion:** The entire project, including work in the harsh environment and was completed on schedule without any incidents.

Complex construction requirements were met by implementing tailored construction solutions, including a sophisticated wastewater reuse system at Mesa Vista Elementary and a water supply upgrade at El Rito Elementary. This dual-scope project was completed safely and on schedule, ultimately giving the school district independence from an expensive community water supply and securing a sustainable source for athletic field irrigation.



DOWNLOAD