

CASE STUDY

Wastewater Renovation at Paradise Plaza

Project Type: Commercial Developer

Location: Paradise, California

HIGHLIGHTS

Provided comprehensive system overhaul with new collection, treatment, and dispersal infrastructure.

Executed in four months with minimal impact on the ongoing operations of retailers and restaurants.

Innovative dispersal line solution that successfully avoided excavation for reduced construction impact.

IWS WASTEWATER INFRASTRUCTURE RENOVATION AT PARADISE PLAZA

IWS successfully executed a significant infrastructure overhaul at the Paradise Plaza regional mall in Paradise, CA. The 12-acre site, home to major retailers and restaurants, was suffering from failing, aging wastewater septic systems that couldn't handle the load, leading to environmental and operational problems. The comprehensive solution implemented by IWS included replacing the entire collection and treatment system with modern technology, ensuring regulatory compliance and minimizing disruption to the busy commercial hub.

CHALLENGES FACED

- **System Failure and Environmental Hazard:** The existing aging septic systems were critically failing, unable to handle the commercial wastewater load, which resulted in septage surfacing in parking areas and led to serious environmental and regulatory compliance issue
- **Operational Constraints on an Active Site:** The entire project had to be completed on a busy, fully operational 12-acre regional mall, requiring intensive planning and traffic control to execute the work with minimal disruption to tenants.
- **Time-Sensitive Execution During Peak Season:** Construction timelines overlapped with the busy holiday shopping season, necessitating a rapid, four-month completion schedule without significantly impacting the commercial businesses during their critical revenue period.



SOLUTIONS IMPLEMENTED

- **Complete Modernization of Wastewater Management:** IWS installed a comprehensive, high-capacity system to resolve the sewage failure, including over 20,000 linear feet of new piping, two lift stations with grinder pumps, and a series of pre-treatment tanks leading to a modified SBR unit capable of treating up to 20,000 GPD.
- **Innovative Trenchless Dispersal System:** To prevent extensive site excavation and minimize disturbance to the busy parking areas, the dispersal system was renovated using 12,000 feet of new drain line slip fitted into the existing lines, successfully avoiding major surface disruption.
- **Integrated Infrastructure and Operational Management:** In addition to the wastewater system, IWS upgraded the water supply system with new pressure reducing valves (PRVs). Project execution involved strict traffic control and close tenant coordination, allowing for the complex work to be self-performed and completed in four months with minimal impact, even during the holiday shopping season.



OUTCOME AND IMPACT

- **Regulatory Compliance:** The newly installed wastewater treatment system successfully met all regulatory discharge requirements, resolving the environmental non-compliance issues caused by the failing septage systems.
- **Operational Continuity:** IWS was able to execute the diverse construction activities with minimal disruption to the commercial businesses, providing traffic control and working closely with tenants.
- **Asset Improvement:** The project renovated critical, failing infrastructure, protecting the property owner's asset and ensuring long-term, reliable wastewater management for the busy commercial tenants.

The Paradise Plaza wastewater infrastructure renovation by IWS was a critical project that successfully addressed the failure of an aging septic system at a busy regional mall. By implementing a complete, modern solution, IWS resolved the regulatory and environmental issues with minimal disruption to ongoing commercial operations, delivering a compliant and reliable system for the property owner.

