

CASE STUDY

IWS Completes Design-Build of Texas Wastewater Treatment Plant

Location: Kendall County, Texas

HIGHLIGHTS

IWS successfully delivered the project within budget while meeting stringent TCEQ tertiary discharge limits.

The wastewater treatment plant was designed to accommodate flows up to 110,000 GPD.

Required seamless integration with the existing collection system.

A CLEAR SOLUTION: IWS'S IMPACT ON LERIN HILLS WASTEWATER

Integrated Water Services (IWS) successfully completed the design, construction, and start-up of a new wastewater treatment plant for the Lerin Hills Subdivision in Kendall County, Texas. This facility was engineered to handle flows up to 110,000 GPD, with start-up turndown capacity of 11,000 GPD. Upon completion, the plant was transferred to the Lerin Hills Utility District for ownership and operation, serving the subdivision's residents.

CHALLENGES FACED

- **Stringent Regulatory Compliance:** The project required meeting strict Texas Commission on Environmental Quality (TCEQ) tertiary discharge limits for BOD (5 mg/l), TSS (5 mg/l), ammonia (1 mg/l), and phosphorous (0.5 mg/l).
- **Budgetary Constraints:** IWS operated under a tight budget, necessitating cost-effective solutions that ensured the facility's long-term success and durability.
- **Project Complexity:** This was an intricate design-build project, demanding precise coordination, extensive site improvements, and seamless integration with the existing collection system.



SOLUTIONS IMPLEMENTED

- **Collaborative and Cost-Effective Design:** IWS secured the project with the lowest competitive bid and collaborated closely with vendors and owner, LH Devco, Inc., to select a **cost-effective system** meeting all discharge requirements.
- **Advanced Treatment System Deployment:** Deployed a complete mix activated sludge wastewater treatment system, including an ISO disc cloth media filter for tertiary treatment.
- **Comprehensive and Compatible Package:** The installed system was a full package (aeration, clarifier, digester, filter, disinfection, post-aeration) designed for full compatibility with the existing grinder pump force main collection system.
- **Turnkey Project Management:** IWS assumed full responsibility for the entire project lifecycle, from design and construction, including site improvements, to the crucial start-up of the treatment system.



OUTCOME AND IMPACT

- **Successful, Compliant Plant Delivery:** The wastewater treatment plant was designed, constructed, and successfully started up, consistently meeting stringent TCEQ tertiary discharge limits.
- **Budget Adherence:** IWS delivered a high-quality solution within the owner's allocated budget.
- **High Client Satisfaction & Recommendation:** The project resulted in high client satisfaction, with the owner's representative praising IWS's smooth execution and creative problem-solving. This led to a strong recommendation for future projects, solidifying IWS's reputation for delivering complex projects smoothly and effectively.

Through a combination of competitive pricing, collaborative design, and expert implementation of advanced treatment technologies, IWS successfully delivered a critical wastewater treatment solution for the Lerin Hills Subdivision.

IWS really made this a smooth project, from working with the site civil engineer and completing the design, to constructing the system, and then doing the start-up. This was a complex project and needed creative thinking to provide a solution for the budget we had. IWS added value to the project and I would highly recommend them for future projects"

Abel Godines,
Owner's representative for LH Devco, Inc.



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