

Before**Case Study: Huntington Estates**

When Eagle Ridge acquired the Huntington Estates Wastewater Treatment Facility, it was clear that extensive improvements were needed to bring the system into compliance and ensure reliable service. The facility was plagued by numerous issues, including a history of noncompliance with National Pollutant Discharge Elimination System (NPDES) permit requirements, with over 35 effluent violations on record, including 11 for Total Suspended Solids (TSS), 10 for ammonia nitrogen, and 11 for Biochemical Oxygen Demand (BOD).

The facility's ultraviolet (UV) disinfection system was non-operational and required a complete rebuild to provide proper treatment. Additionally, the recirculating sand filter raised concerns due to potential improper installation, necessitating further investigation. Safety and security were also major issues, as the site lacked complete fencing, leaving it vulnerable to unauthorized access and creating liability concerns. The absence of remote monitoring technology made it difficult for operators to detect and respond to system failures in a timely manner, further compromising the facility's reliability.

Eagle Ridge immediately took action to address these critical deficiencies. Comprehensive electrical upgrades were implemented to stabilize the facility's power supply. The existing fence around the site was repaired to enhance security and reduce liability risks. Additionally, a quick connect for a generator was installed to ensure continuity of operations during power outages, allowing for rapid deployment of backup power.

Significant improvements were also made to the treatment process. A Micro Moving Bed Biofilm (MBBR) was installed in the existing tank to enhance a biological treatment. The UV disinfection system was fully rebuilt with new units and housing to ensure proper disinfection of the effluent. Additionally, screen material was installed to prevent nuisance solids from entering the system, and yard piping was also upgraded to support these enhancements.

As a result of these comprehensive upgrades, the Huntington Estates Wastewater Treatment Facility has seen a marked improvement in operational efficiency and regulatory compliance. The facility's average ammonia level, which was 27.8 mg/L in 2019, has been reduced to just 0.4 mg/L in the past year, representing a 99% reduction. Similarly, BOD levels have dropped from an average of 22.7 mg/L in 2020 to just 2.4 mg/L - a significant 89% reduction. TSS levels have also seen a dramatic decrease, going from an average of 22.3 mg/L in 2020 to 1.6 mg/L, reflecting a 93% reduction.

The facility is now well-equipped to provide reliable wastewater treatment, ensuring that the Huntington Estates community is served by a safe and effective system. Eagle Ridge's proactive approach reflects a strong commitment to operational excellence, regulatory compliance, and the long-term sustainability of the Huntington Estates wastewater treatment system.

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