



Case Study: Cajun Estates

Before



After



At the time of acquisition, the Cajun Estates lagoon system was experiencing **ongoing treatment challenges**, with a history of **frequent violations**. The lagoons were heavily impacted by vegetation overgrowth, with dense growth along the berms and within the pond, particularly in the primary cell, hindering proper treatment and overall system performance.

In addition to treatment limitations, **structural concerns** were present. The berm along the southeastern edge of the second pond showed signs of **deterioration**, resulting in **seepage** that extended into a neighboring property and raised **environmental and community concerns**.

To restore the system, Magnolia Water implemented **targeted improvements** focused on both **treatment performance** and **structural integrity**. Extensive vegetation removal was carried out across the site, reestablishing proper lagoon function and allowing the treatment process to operate as intended. **Berms were repaired and stabilized**, eliminating seepage and protecting adjacent properties.

To further enhance treatment, an **MBBR and clarifier system** were installed and brought online. These upgrades significantly **improved biological treatment** and **solids removal**, providing the capacity needed for **consistent, compliant operation**.

The results have been substantial. **Average BOD levels have decreased by more than 83%**, while **total suspended solids were reduced by over 93%**, bringing the system into **compliance** and significantly improving effluent quality.

Today, the Cajun Estates system is operating as a **stable and reliable wastewater treatment facility**, demonstrating Magnolia Water's commitment to **restoring performance, protecting the environment**, and delivering **long-term operational reliability** for the communities it serves.