



Before



After



Case Study: Lake Virginia

At the time of acquisition, the Lake Virginia wastewater system was in a state of disrepair, marked by serious environmental and regulatory violations. The site included two lagoon systems—yet only one was permitted. The second lagoon was illegally discharging into nearby surface water, threatening local ecosystems and placing the facility in direct violation of Missouri environmental regulations. The permitted lagoon, a single-cell unit with no aeration or disinfection, consistently failed to meet ammonia and E. coli limits outlined in its permit.

Confluence Rivers acted quickly to stabilize the system and restore compliance. The unpermitted lagoon was repurposed as a holding cell to provide additional capacity during peak flows, effectively halting its illegal discharge. The permitted lagoon was reshaped and reinforced with rock to improve structural integrity and treatment flow. Most notably, a new Moving Bed Biofilm Reactor (MBBR) system was installed to enhance biological treatment and significantly improve ammonia removal. To address ongoing disinfection concerns, a tablet chlorination system was also added to ensure consistent and effective control of E. coli levels.

With these targeted upgrades and a renewed focus on operational oversight, the Lake Virginia facility is now fully compliant with state regulations and performing reliably. Confluence Rivers' investment not only resolved immediate violations but also strengthened long-term protections for Missouri's waterways and the community that depends on them.