

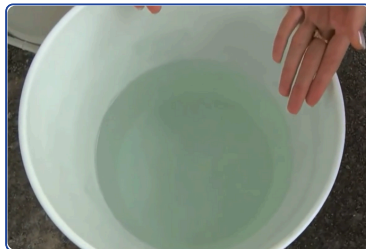


Case Study: Eden Isles Water System



Before

After



Magnolia Water undertook essential upgrades to enhance the Eden Isles Water System to address longstanding water quality and infrastructure issues. The system, previously burdened by improper water treatment practices, was severely over-chlorinated by the previous ownership masking high levels of tannins in the groundwater. This approach resulted in elevated levels of disinfection byproducts (DBPs), which approached the maximum contaminant level (MCL) limits, posing potential health risks. Additionally, the tannins caused unpleasant smells, taste, and discoloration in the water.

To resolve these challenges, Magnolia Water implemented a project to install a granulated activated carbon filtration system designed to remove tannins from the drinking water. This solution allows for a significant reduction in chlorine dosing - approximately half of the levels used under previous ownership - eliminating the risk of elevated DBP formation and ensuring compliance with water quality standards. With the tannins effectively addressed, the system now delivers clean, safe, reliable, and aesthetically pleasing water to the Eden Isles community.

Further improvements to the Eden Isles Water System have addressed critical infrastructure needs, including updating the aging disinfection system. The filtration project included installation of a filter building and foundation, controls and electrical systems, and new yard piping. The existing disinfection system has been improved and protective coverings for chlorine tanks, leak detection, and ventilation equipment as required by the Louisiana Department of Health, along with pump improvements. Planned upgrades, including recoating the elevated storage tank and distribution system improvements will further strengthen the system's performance and longevity.

These comprehensive upgrades have transformed the Eden Isles Water System, providing the community with consistent access to high-quality water and ensuring the system's sustainability for years to come.