

SUSTAINABLE WASTEWATER TREATMENT



CHALLENGE:

Interstate Paper's treatment of its wastewater was based on an end-of-pipe system that was built back in the 1960s as part of the mill's initial infrastructure. Interstate Paper needed to find a way to sustain its wastewater treatment to meet the company's current and projected growth and maintain its stewardship to the environment and the State of Georgia's natural resources.

Seeking to control its treated wastewater discharges into the North Newport River, the company managers positioned their mill for holistically sustainable wastewater treatment that permits the company to grow its operations in Georgia where water remains a precious natural resource.

SOLUTION:

Investing significant time, research, and money, Interstate Paper instituted an

environmental approach that transformed the mill and ensured opportunities for growth. The strategy combines the application of existing theories and the adaptation of emerging technologies to sustain increased production demands at the mill.

- The Interstate Paper team restored and upgraded current infrastructure, including the 800-acre wastewater treatment system. The upgrade uses standard wastewater treatment technologies and methods such as facultative lagoons and plug-flow kinetics, while also including new technologies such as solar-powered basin mixers.
- They expanded best management practices. The mill implemented operational modifications that target and reduce wastewater flows and regulated pollutants at the source while improving overall processes for water use reduction and recycling. Water conservation was given priority.
- Contractors used sustainable construction methods such as using recycled concrete and local soils during the restoration.

- The mill developed a practical long-term sludge management plan and replaced the 40 year-old sludge lagooning system by diverting 10% of the mill's discharge flow (more than 95% of the generated solids) away from the wastewater treatment system for burning in the mill's biofuel boiler. Interstate Paper is now ranked highly in the nation among paper mills in the quality of its effluent discharge.

The mill's wastewater treatment facility is a thriving plant, animal, and aquatic eco-system and has been cited for the high density of waterfowl and both resident and migratory birds. Large concentrations of shrimp, fish, alligators, and indigenous birds are found in the immediate vicinity of the mill's outfall.

Through innovative actions, Interstate Paper's discharge remains one of the lowest in North America, meeting or exceeding all federal, state, and local standards.

