

# Louisiana's Wastewater Reuse Project

The City of West Monroe used CWSRF funding to upgrade an existing wastewater treatment plant (WWTP). As a result of this water efficiency project, the facility now treats wastewater to drinking water standards using dissolved air floatation followed by pressurized granular activated carbon and chlorination. The treated effluent from the City's WWTP is pumped to Graphic Packaging International, Inc. (GPI) to meet the company's demand for process water in its food grade paper manufacturing process.

## *Funding Mechanism*

The City of West Monroe, LA obtained a \$6,000,000 Louisiana Department of Environmental Quality CWSRF loan and various other funding totaling \$20 million. Other funding included \$11,900,000 of state capital outlay, and \$700,000 from the City of West Monroe and West Ouachita Sewage District Number 5. The annual operation and maintenance costs amount to \$2,137,000.

## *Project Description*

The City of West Monroe used CWSRF funding to upgrade an existing 7 million gallons per day (MGD) wastewater treatment plant (WWTP). As a result of this innovative water efficiency project, the facility now treats wastewater to drinking water standards using dissolved air floatation followed by pressurized granular activated carbon and chlorination. The treated effluent from the City's WWTP is pumped to Graphic Packaging International, Inc. (GPI) to meet the company's demand for process water in its



Algae Removal Process by Dissolved Air Flotation Units. Photo Credit: City of West Monroe

food grade paper manufacturing process. The City worked closely with GPI to identify, test, and implement this innovative solution to the company's industrial input needs.



ECOS

This factsheet was developed by the Environmental Council of the States. It is one of ten factsheets on how states have used flexibility in the Clean Water State Revolving Loan Funds to pursue innovative projects. To view the other factsheets and information on other state projects visit [www.ecos.org](http://www.ecos.org).

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## ***Solving the Problem***

Prior to the implementation of this water efficiency project, the Sparta Aquifer was overdrawn by approximately 17 to 18 MGD. The Sparta Aquifer supplies drinking water to 14 parishes. The decline in water quantity had caused a decline in quality and occurrence of salt water intrusion in the aquifer. GPI's wells in the aquifer were becoming salty and corrosive; an alternate, reliable water source was needed in order to continue business in West Monroe. Since the properties of the treatment plant and GPI were adjacent, building a pipeline between the two to transfer the water was economically feasible. Before this solution was proposed, the primary solution identified by the Sparta Groundwater Conservation District Commission was a 10 MGD project using river water from the Ouachita River at West Monroe, which would cost nearly \$83 million, compared to the \$20 million required for this water reuse project.

## ***Results***

This water reuse project significantly reduces GPI's 10 MGD demand for process water from the Sparta Aquifer, providing relief to the aquifer by reducing its estimated overdraw by approximately 30%. For every gallon of reused water pumped to GPI, the company draws one gallon less from the aquifer. The aquifer water levels have seen significant recovery since the implementation of this project, and the quality of the water has also improved.

## ***Local Partnership Creates Economic and Social Impact***

The City worked closely with GPI to identify, test, and implement this innovative solution to the company's industrial input needs. In addition to the environmental benefits of this partnership, it has ensured the stability of the community's largest employer. GPI employs 1,200 people in West Monroe, with an additional 637 direct workers associated with harvesting timber and pulp wood and transporting it to GPI. It also raised community awareness of the issue, and promoted the acceptance of using recycled water.

## ***More Information***

For more information on this program contact:  
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