CASE STUDY:
YELLOW RIVER WATER RECLAMATION
FACILITY IMPROVEMENTS

Challenge
Gwinnett County was faced with the need to update and expand the Yellow River Water Reclamation Facility (WRF) while maintaining treatment capacity and full plant operations, and limiting disruption to the surrounding community. Due to the geography surrounding the facility, a traditional expansion was out of the question.

Solution
Acting as construction manager-at-risk, the PC Construction team formulated a plan to open a corridor through the middle of the existing plant that enabled the construction of much of the new plant’s systems while minimizing impacts to the surrounding community. This also allowed the plant to remain operational at the necessary capacity and in compliance with all permitting requirements.

Gwinnett County was concerned the construction activities at the plant would be overly disruptive to the surrounding residential community. As a result, PC Construction, in partnership with the design engineers, initiated a “Good Neighbor” policy to ensure the expansion brought improvements for homeowners in the immediate vicinity. Odor control, stronger noise abatement and reduced lighting around the site helped minimize the concerns of area residents. In addition, PC Construction sought out methods to limit possible neighborhood disruptions. A policy was created to limit the occurrence of major work to between the hours of 7:00 a.m. and 5:00 p.m. Sound abatement technologies were used whenever reasonably possible to prevent excessive construction-related noises from reaching the community.

Location
Lilburn, Georgia

Contract Value
$238 million

Completion Date
December 2012

Delivery Method
CM at-Risk

Owner
Gwinnett County Department of Public Utilities

Designer
Jacobs/JJG/CH2M HILL

Awards
2012 Best Project Award, Best Civil Works/Infrastructure, ENR National

2012 Best Project Award, Best Civil Works/Infrastructure, ENR Southeast Region

Awards continued on next page.
Results
The Yellow River WRF was completed seven months ahead of schedule and more than $10 million under the $250 million budget. The new facility consolidates six other wastewater treatment plants across Gwinnett County into one. At the same time, installation of improved technology – including the largest membrane filtration system – reduced the nutrient levels flowing into the Yellow River basin while requiring much less space than traditional processes.

The “Good Neighbor” policy resulted in a construction project supported by the community and at the best value to the owner. Upon completion of construction, two older plants were removed from service, eliminating the potential for additional flows into the Yellow River Basin. The new flows are treated to a much higher standard with improved reliability at an overall decreased cost to the owner, ultimately saving the ratepayers money.