



SAFE WATER: DESIGNED AND DELIVERED

The Water Department of Carbondale, Illinois, purifies 4 million gallons of water every day for its 40,000 residents. When upgrades were needed to replace aging equipment, Catalyst assessed and evaluated all SCADA controls, designed the project plan, and managed the installation of new equipment from start-to-finish.

Tony Harrison is a less-is-more kind of guy. He believes that less is better, especially when it comes to risk, complexity and money. And less - of all the above - is exactly what he was looking for when he recently led the efforts at the Carbondale, Ill., water department to replace outdated SCADA (supervisory control and data acquisition) systems and distribution and collection controls. Harrison got everything he needed, but more importantly, he didn't get more than he needed.

"Large, multi-year projects like ours are complex and expensive and require a lot of expertise," said Harrison, water operations manager for Carbondale. "They can also grow larger than they need to be and we wanted to do everything we could to make sure we spent dollars wisely."

Carbondale obtains raw water from two source lakes. Cedar Lake is one source and was completed by the

city in 1975. The City Reservoir, originally built in 1926, serves as a backup water supply. Water from both lakes is treated by a water treatment plant completed in 1994. Harrison has been in the waterworks industry for 13 years and has been with the city of Carbondale for five years.

In 2009, the city decided to start the process of upgrading the SCADA systems and other mechanicals. Harrison and his team chose Catalyst as the systems integrator and contractor for the upgrade project.

"Catalyst was very familiar with our legacy systems and came to us with a common-sense plan for evaluating our needs and selecting the right new equipment," said Harrison. "They also demonstrated an ability to stay within scope. We felt they wanted to control costs as much as we did."



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- Tony Harrison,
Water Operations Manager,
City of Carbondale, Illinois

How to Control Costs While Upgrading Your Water Treatment Facilities

1. Evaluate, assess and retain existing systems whenever possible.
2. Ask your water plant systems integrator to provide multiple options and outline the pros and cons of each one.
3. Insist on simplicity and clarity. Make sure you get exactly what you need, and nothing that you don't.





Upgrading to Ease and Simplicity

Harrison and his colleagues put together a plan for upgrading the Carbondale systems which started with comprehensive inspections. From this, the Catalyst team put together competitive bids for each stage of the project.

According to Harrison, one big selling point on working with the Catalyst team was that they could take this project from start to finish. Catalyst was able to handle all the major stages of a major project like this:

1. Inspection and Discovery
2. Equipment and Material Selection and Layout
3. System Development, Installation and Testing

“Our plant has a lot of I/O points,” said Harrison. “It’s not a simple task to account for all of them and determine what should be done, but Catalyst’s experience with waterworks showed. They knew what to look for, how to assess components, and then what to recommend for upgrade or replacement.”

Once inspections and assessments were complete, Catalyst provided winning low bids on the implementation of hardware and software. Catalyst took nothing for granted and stayed focused on cost-efficiency and speed of completion.

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Harrison said the overall experience was a good one and wouldn’t hesitate to recommend Catalyst to other water department executives.

“There were no surprises in working with Catalyst,” said Harrison. “They worked quickly, they communicated well, and they gave us good advice. Their project management skills were excellent.”

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