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Case Study

CITYWORKS COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM

DELCORA

(The Delaware County Regional Water
Quality Control Authority - Chester, PA)

CITYWORKS



Sewers are something most people prefer not to think about. We know they're there. And we know we need them. But it's not a pleasant thought.

Edwin Bothwell, on the other hand, spends lots of time thinking about sewers. It's his job. Ed is the Asset Planning and Construction Manager for DELCORA, the regional sewer authority for Delaware County, PA - 16 miles west of Philadelphia.

"DELCORA handles about 100 million gallons a day. About 44 to 50 million gallons of this require treatment. Sixty percent of this is industrial waste from the Sunoco refinery, a Kimberly-Clark paper mill and smaller plants. In our East Service Area, we pump this waste to Philadelphia for treatment. But in our West Service Area, we treat the sewage ourselves. Either way, the process requires us to maintain a Geographic Information System (GIS) to map our sewer system," Bothwell explains.

He knew that DELCORA needed a more effective way to deal with the realities of sewer management. Those realities include such traditional concerns as operations and maintenance. But in a new century, they also include ensuring compliance with new federal regulations on accounting and reporting.

In June, 1999, the Governmental Accounting Standards Board (GASB) issued "Statement 34, Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments." This rule is the biggest change in the history of public-sector accounting. GASB 34 established a new financial reporting model for state and local governments that would make annual reports more comprehensive and ultimately easier to understand and use.

To be in compliance with this new definition of Generally Accepted Accounting Principles (GAAP), local governmental entities were required to adopt the GASB 34 model by June 15, 2001. DELCORA, like local governments nationwide, began the process of converting to this new method of accounting and reporting. But implementing GASB 34 presented some real challenges.

GASB 34 requires that all capital assets, including infrastructure, need to be capitalized at historical cost

- or an estimated historical cost - and depreciated over its useful life. An alternative to depreciation for infrastructure assets such as DELCORA's sewer system is the use of the modified approach that requires the government to demonstrate that it is maintaining the infrastructure at or above a condition level that has been established.

Since GASB 34 required more than taking the local government agency's word that that it is maintaining the infrastructure, Bothwell knew that DELCORA needed a better handle on the information end of the maintenance process:

"It's more than just accounting. A lot of needs came together that required a common solution. We also needed a system that would handle maintenance work orders for lines in street, a work order system that would work with our GIS. Any new system would also have to help us track the info we needed for new regs."

Bothwell knew that there were a lot of software systems out there claiming to be able to do this. He also knew it would take a team effort to pick the one system that was right for DELCORA. His GIS team consisted of representatives from IT, engineering and finance as well as supervisors from sewer maintenance.

"Our first priority was to determine our goal and objectives. What did we really need? Our initial key requirement was that any new software system had to be able to track work orders for sewer maintenance. This encompassed storing inspection data and tracking complaints. Our finance people wanted information for GASB depreciation. And whatever system we chose had to meet new regs coming from the EPA."

These regulations require that agencies such as DELCORA demonstrate a more proactive approach to sewer operations and maintenance. For Bothwell and his team this meant getting a better handle on maintenance records, sewer capacity and metering. Sewer lines had to be systematically inspected every three years and record keeping requirements were more rigorous.

"This thought process eventually resulted in an RFP, which we sent out to six vendors for proposals. At this stage we didn't even ask for pricing. We were more

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– Ed Bothwell
Asset Planning and Construction Manager



interested in what worked - and would work for us. When the proposals came back, every individual on the team evaluated these proposals in terms of their specific needs. This helped us narrow the field down to three vendors. Our team met with each of the three. From these interviews, we put together a matrix to rate their products. When we worked through the matrix Cityworks clearly came out on top.”

Through a Strategic Alliance with Azteca Systems, Motorola sells, implements and supports Cityworks. It helps public sector organizations such as DELCORA better manage such critical municipal functions as public works, parks and recreation, streets and transportation as well as water, waste water and storm water management. Designed to work with ESRI GIS software, Cityworks helps public works and utilities inventory physical assets, issue and track work orders, manage customer service requests and manage parts in maintenance - all in one seamless information environment. For Bothwell and his team, this approach offered a number of concrete advantages:

“Cityworks met our immediate goals of improving our operations and maintenance while helping us comply with GASB 34. With Cityworks we could improve our service request response while accurately capturing maintenance and repair costs. It gives us greater accountability while reducing administrative overhead and overtime. Because it supports optimal maintenance, Cityworks maximizes the useful life and performance of our capital investment in sewers while giving us the hard data we need to justify budget requests. Take capital planning with sewer lines. We needed a NASCA system to rate lines for replacement or rehabbing. We didn't have program for this. CW permits us to do all this. Cityworks is a better way to manage our investment in fixed infrastructure.”

Just as important to Bothwell's team was everything that went into creating Cityworks.

“Because Cityworks was specifically designed for the public sector, the software reflects the unique requirements of government agencies. It's built on industry best practices and includes industry-standard data models. It is easily expandable to encompass

other municipal functions besides sewers and has a powerful search and reporting engine for management and data analysis.”

The DELCORA team found that implementation was as easy as the decision to go with Cityworks.

“There was a lot of configuration to meet our specs but the process was very smooth. Motorola helped us configure Cityworks to our specific needs - then brought in the people who scheduled, installed, and implemented the software. Of course, some issues always arise as you work your way through a project of this scope. But there was nothing major and Motorola's representative was always there to meet our needs and make sure it was done right. We were quickly up and running.”

Bothwell believes that it is important that this Motorola support didn't end with installation.

“Software programs don't come with training wheels. You just have to use them and, as you get into it, you learn what you need to know. You have to use Cityworks before you can ask questions. That's how questions get resolved and Motorola was always there to help us find ways to do things easier.”

Cityworks was Ed Bothwell's first experience in working with Motorola and it proved to be a positive one.

“It was very pleasant. I have nothing but praise for Motorola. The company met both our needs and expectations. The system is up and running. It works. And I wouldn't hesitate to work with Motorola again.”

But Ed Bothwell's real focus is on the software itself. “Cityworks was a new program for us here at DELCORA. Everyone worked together and took responsibility for making it work. With Motorola's help, every issue was resolved. We're happy with it. Cityworks is simply the best way to track, value, maintain and visualize DELCORA's assets.”

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